PERSUASION IN CROWDFUNDING:
AN ELABORATION LIKELIHOOD MODEL OF CROWDFUNDING PERFORMANCE

Thomas H. Allison
Assistant Professor
Department of Management, Information Systems, and Entrepreneurship
Carson College of Business
Washington State University
Pullman, Washington 99164
Ph: (509) 335-9807
E-mail: thomas.allison@wsu.edu

Blakley C. Davis
Assistant Professor
Department of Management
School of Business
Virginia Commonwealth University
Richmond, VA 23284
Ph: (804) 828-7158
E-mail: bcdavis@vcu.edu

Justin W. Webb
Associate Professor
Department of Management
Belk College of Business
University of North Carolina, Charlotte
Charlotte, North Carolina 28223
Ph: (704) 687-6182
E-mail: justin.w.webb@uncc.edu

Jeremy C. Short
Professor and Rath Chair in Strategic Management
Division of Management and International Business
Price College of Business
University of Oklahoma
Norman, OK 73019
Ph: (405) 819-5692
E-mail: jeremy.short@ou.edu

THIS DOCUMENT IS AN AUTHORS' POST-PRINT of accepted article:
https://doi.org/10.1016/j.jbusvent.2017.09.002

Keywords: crowdfunding, persuasion, elaboration likelihood model, ELM, funder differences

Acknowledgements: The authors gratefully acknowledge the developmental contributions of our field editor, Ted Baker, and of four anonymous reviewers; any errors remain our own.

PERSUASION IN CROWDFUNDING:
AN ELABORATION LIKELIHOOD MODEL OF CROWDFUNDING PERFORMANCE

ABSTRACT

This study adopts a persuasion perspective to understand how entrepreneurs acquire funds for their ventures through crowdfunding. We draw upon the elaboration likelihood model of persuasion (ELM) from the social psychology, marketing, and information systems literatures. ELM conceptualizes persuasion as occurring through both central and peripheral routes. We explain how these two routes are salient to the phenomenon of entrepreneurial crowdfunding, and develop a set of hypotheses commensurate with each route. We also develop a set of moderating hypotheses arguing that funder motivation and ability influence the relative persuasive strength of each route. The results suggest that issue-relevant information, such as the entrepreneurs' education and past experience, matters most when funders have greater ability and greater motivation to make a careful evaluation. This is the case when funders are more experienced and when the amounts they are asked to commit are larger. In contrast, cues, such as adopting a group identity and characterizing the venture as a personal dream, have their strongest influence among inexperienced, first-time funders, and when the amounts they are asked to commit are smaller. We further validate these findings through a decision experiment in a simulated crowdfunding context.

Keywords: crowdfunding, persuasion, elaboration likelihood model, ELM, funder differences

1. Executive summary

Rewards-based crowdfunding represents a democratic funding context that enables entrepreneurs to solicit financial capital from the general public in support of a specific purpose, such as developing a new product (Davis et al., 2017). Given that crowdfunding takes place via the internet, entrepreneurial narratives play a central role in the process of communication between entrepreneurs and potential funders (Fischer and Reuber, 2014). While it has been suggested that these narratives represent an effective tool for shaping the beliefs of potential funders (Frydrych et al., 2014), the exact mechanisms remain unclear. As a result, we know relatively little with regards to why individuals choose to provide financial capital to a particular crowdfunding campaign. In an attempt to shed light onto this increasingly important topic, this study seeks to build theory regarding how persuasion processes influence the decisions of potential funders and, in turn, the outcomes of crowdfunding efforts.

In the current study, we draw upon the Elaboration Likelihood Model (ELM) of Persuasion (Petty and Cacioppo, 1986) to examine: (1) how do crowdfunding entrepreneurs successfully persuade potential funders to provide capital through the use of issue-relevant information and peripheral cues; and (2) how does the motivation and ability of funders influence the way in which persuasion occurs? We examine these research questions by examining the communicated entrepreneurial narratives associated with 383 entrepreneurs seeking capital to support their venture-related activities via the crowdfunding platform Kickstarter. In an attempt to obtain a more nuanced view of how funders' motivation and ability influence elaboration likelihood, a second experiment-based study, using individual-level data from 315 participants, was also undertaken.

Collectively, the results from our two studies provide considerable support for the elaboration likelihood model of persuasion in crowdfunding. In terms of central route processes, both entrepreneur-specific and product-specific issue-relevant information were found to be positively related to crowdfunding performance. In line with our peripheral route hypotheses, we find that crowdfunding performance is also enhanced by the presence of peripheral cues in the form of portraying the venture as a personal dream, espousing group identity, and using a positive narrative tone. Moreover, although somewhat mixed, our results suggest that the extent to which persuasion is primarily driven by issue-relevant information or peripheral cues is contingent upon funders' motivation and ability. Specifically, as crowdfunding experience and funding commitment increase (decrease), the influence of issue-relevant information (peripheral cues) on funders' decision to provide capital increases, and vice versa.

Our findings contribute to the emerging stream of research surrounding the context of crowdfunding and offer several important contributions to both theory and practice. To begin, research utilizing the ELM has primarily focused on attitude change (Bhattacherjee and Sanford, 2006), yet this work has neglected to examine the theory's potential to predict resource allocation decisions. In doing so, the current study not only extends the ELM to an important entrepreneurial context, but also extends the field's knowledge of factors that may influence entrepreneurs' ability to persuade resource providers. Second, through an integration of ELM theory and entrepreneurial resource acquisition research, we extend work in ELM by providing empirical evidence highlighting the importance of contextual influences on the persuasion process. Lastly, our findings also present meaningful implications for entrepreneurs hoping to garner funds via crowdfunding. Specifically, our results suggest that campaigns seeking relatively small contributions will likely perform at a higher level by relying upon peripheral cues as a means of persuasion. However, when seeking relatively large individual contributions, success may be largely contingent upon the entrepreneur(s) ability to clearly articulate issue-relevant information.

2. Introduction

Rewards-based crowdfunding enables entrepreneurs to obtain financial resources from the general public, via internet-based platforms, in exchange for some level of non-financial reward (Davis et al., 2017; Mollick, 2014). Although the field's knowledge is limited, research suggests that entrepreneurial narratives play a central role in the ability of entrepreneurs to garner financial resources via internet-based conduits, such as crowdfunding (Fischer and Reuber, 2014). While it is known that entrepreneurial narratives are effective in shaping the beliefs of potential funders (Frydrych et al., 2014), precisely how this occurs remains somewhat opaque. As a result, we have yet to obtain sufficient understanding of why funders decide (not) to provide financial capital to a specific crowdfunding campaign. The purpose of the current study is to build theory concerning how funders and, ultimately, crowdfunding outcomes are influenced via persuasive processes.

The elaboration likelihood model (ELM) of persuasion (Petty and Cacioppo, 1986) provides a framework for better understanding how entrepreneurs' use of narratives may drive attitude change in potential funders. According to ELM, individuals' overall evaluation of an entrepreneur's crowdfunding pitch may be influenced by two distinct routes: the central route and the peripheral route (Chaiken and Trope, 1999). The central route is defined as the process by which people evaluate information through critical thought. The peripheral route is defined as a less cognitively effortful process through which the message setting influences an individual (Petty and Cacioppo, 1986). Entrepreneurial narratives, such as those found on crowdfunding campaign web pages, contain both information relevant to the venture's pitch to funders, and contextual cues. Through the central route, individuals form evaluations by engaging in a critical thought process regarding issue-relevant information – which refers to credible, key content directly relating to the merits of the focal topic, such as objective evidence of product quality (Darley and Smith, 1993). Alternatively, through the peripheral route, individuals engage in a less cognitively rigorous process and form evaluations simply by relying on peripheral cues, which constitute the remaining elements of the message (Areni and Cox, 1995), such as underlying tone (Yang et al., 2006).

The extent to which funders' evaluations of a crowdfunding pitch may be influenced by central or peripheral route processes is determined by their position on the elaboration likelihood continuum (Crano and Prislin, 2006; Petty and Cacioppo, 1986). The term elaboration in this model refers to the process in which individuals 'add something of their own' and rigorously evaluate a message, rather than simply encoding the contents (Petty and Wegener, 1999). The elaboration likelihood continuum describes the extent to which elaboration is contingent upon individuals' *ability* and *motivation* to assess the merits of a focal person, issue, or object in a

particular decision context (Petty and Cacioppo, 1986; Petty and Wegener, 1998). Ability refers to the extent that one possesses adequate knowledge or experience with the topic at hand (Bhattacherjee and Sanford, 2006), while motivation is most commonly operationalized as personal relevance or importance of the topic at hand, such as the price of a consumer good (Kim and Benbasat, 2009). When individuals are both able and motivated to evaluate a message, they are more likely to be high on the elaboration continuum. As one moves higher on the elaboration continuum, evaluations of the focal topic become more dependent upon central route processes while the impact of peripheral route processes diminish, and vice versa (Petty and Wegener, 1998).

To our knowledge, no research has tested ELM using the allocation of financial capital as an outcome. While support for the moderating effects of both motivation and ability on elaboration likelihood has been found, elaboration likelihood is state-based and context dependent (Crano and Prislin, 2006; Dijkstra, 1999; Petty and Cacioppo, 1984). The implication of this dynamic is that characteristics of the decision context will determine whether issue-relevant information or peripheral cues will matter more to persuading potential funders. Similar to ELM research in marketing (e.g., Areni, 2003; Darley and Smith, 1993; MacInnis and Stayman, 1993), research in the field of entrepreneurship has viewed objective evidence of entrepreneur or product quality as issue-relevant information (e.g., Mitteness et al., 2012; Parhankangas and Ehrlich, 2014) with all other information in a pitch representing peripheral cues (e.g., Chen et al., 2009). Given the unique contextual nature of crowdfunding, we propose the following research questions: (1) how do crowdfunding entrepreneurs successfully persuade potential funders to provide capital through the use of issue-relevant information and peripheral cues; and (2) how does the motivation and ability of funders influence elaboration likelihood? We seek to answer these questions by

examining the communicated messages associated with 383 entrepreneurs seeking capital to support their venture-related activities via the crowdfunding platform Kickstarter.

Our study seeks to provide both theoretical contributions and practical implications. First, we provide an important empirical test of the ELM in the crowdfunding context. While prior research on ELM has typically focused on attitude change (Bhattacherjee and Sanford, 2006), little to no research has examined the theory's ability to predict the allocation of financial capital. In doing so, we not only extend ELM to an increasingly popular entrepreneurial context, but we also offer a new theory to explain the crowdfunding phenomenon, and, in turn, increase the field's knowledge of the factors that influence how entrepreneurs persuade resource providers. Second, by integrating entrepreneurial resource acquisition research with ELM theory, we extend ELM research by providing evidence highlighting the importance of contextual influences on the persuasion process. Finally, our work also presents meaningful implications for entrepreneurs: when seeking many small contributions, persuasion efforts rooted in the communication of peripheral cues represent an effective tactic for raising financial capital. In contrast, campaigns that ask individual funders to commit large amounts of capital will likely fail unless the entrepreneur articulates strong issue-relevant information.

3. Crowdfunding: The Rise and Context

Crowdfunding encompasses a very new take on ideas with historical parallels. Joseph Pulitzer pioneered one of the earliest examples of the crowdfunding concept by using his newspaper to call on the public to raise funds to purchase a pedestal for the Statue of Liberty (New York World, 1885). In a similar vein, artists, composers, inventors, and others have long relied upon funding from various backers to produce new works (Steinberg, 2012). Crowdfunding, in its modern form, has emerged via a confluence of trends supporting alternatives to traditional forms of investment (e.g., angel investment, venture capital, IPOs). Most notably, the prevalence of the

internet, social media, online commerce (e.g., Li et al., 2009), and advertising (Goldfarb and Tucker, 2011), has facilitated increased consumer comfort and confidence in transacting online. Additionally, in the U.S. and elsewhere, a vibrant entrepreneurial culture supported by popular media (e.g., Dragon's Den, Shark Tank) has increased interest in entrepreneurs' activities and the desire to support entrepreneurs (e.g., Spinelli and Adams, 2012).

Complementing traditional forms of investment, crowdfunding may serve as a 'bridge' for entrepreneurs attempting to access other forms of funding (e.g., Belleflamme et al., 2013). For example, after raising roughly $2 million in seed funding from a syndicate of early-stage venture funds, 3D-printing startup Formlabs utilized the crowdfunding platform Kickstarter to raise an additional $2.9 million. Not only did these funding efforts enable Formlabs to bring their product to market, but also enabled the venture to acquire a $19 million Series A round the following year. While the majority of entrepreneurial ventures that engage in crowdfunding obtain only a few thousand dollars, the funding potential of the conduit has continued to increase (Allison et al., 2015). Indeed, a recent study conducted by the World Bank and Crowdsourcing.org projects that crowdfunding will generate more than $300 billion in total funding by 2025 (EquityNet, 2014).

The process of crowdfunding begins with the development of a 'crowdfunding pitch narrative' consisting of information that entrepreneurs wish to make publicly available to prospective funders. This narrative typically consists of details relating to areas, such as the entrepreneurs' backgrounds and aspirations, the funding-reward structure, and an overview of the product for which funding is needed. This narrative is then placed within an online crowdfunding platform on a 'venture-funding page' that enables entrepreneurs to convey their pitch to prospective funders via both digital video and written text mediums. Throughout the duration of

the funding period, prospective funders can utilize this crowdfunding pitch narrative to obtain and evaluate venture or entrepreneur-relevant information prior to making a funding decision.

3.1. Crowdfunding Research

Crowdfunding research in entrepreneurship has proceeded at an increasing pace. While scholars initially sought to describe the overarching phenomenon (Bruton et al., 2015; Mollick, 2014), the field has recently taken a more nuanced approach and begun to investigate specific parts of the process (see Short et al., 2017 for a review). In general, this work has sought to identify similarities with traditional investment processes and drawn upon existing theories such as signaling (Courtney et al., 2017), social capital (Colombo et al., 2015), and legitimacy perspectives (Fisher et al., 2017). However, the application of such traditional theories to the context of crowdfunding has generally produced mixed results. As a result, a door has been opened for future research focusing on funders' distinctiveness relative to traditional investors (e.g., Cholakova and Clarysse, 2015; Davis et al., 2017).

Traditional investors, such as angel investors or venture capitalists are typically due-diligence experts (e.g., Ahlers et al., 2015). In contrast, funders are often laypersons, possessing little to no formal investment experience (e.g., Davis et al., 2017; Lin et al., 2014; Ordanini et al., 2011). Moreover, funders are also distinct in that they commit relatively small amounts of financial capital and are only rewarded via non-financial incentives, such as the product being funded (Mollick, 2014). Collectively, these factors highlight the extent to which funders do not invest capital in the traditional sense found in the entrepreneurial resource acquisition literature (e.g., Macmillan et al., 1985). As a result, non-traditional theories may need to be incorporated into the entrepreneurial resource acquisition research stream in order to better understand the crowdfunding phenomenon.

4. The Elaboration Likelihood Model of Persuasion

The Elaboration Likelihood Model (ELM) provides a theoretical lens for understanding the processes that drive attitude change, or the extent to which one's overall evaluation of a given target is modified from one value to another (Petty and Cacioppo, 1986). ELM posits that one's overall evaluation of a given target may be influenced via two distinct routes: the central route and peripheral route (Petty et al., 2005). Through the central route, individuals form evaluations by engaging in a critical thought process regarding *issue-relevant information*, which refers to all credible, key evidence directly relating to the merit of the focal topic being communicated (Crano and Prislin, 2006; Darley and Smith, 1993). Issue-relevant information may include evidence regarding the superiority of an entrepreneur's product (Petty et al., 1983), the specific benefits and costs of the product (e.g., Areni, 2003; MacInnis and Stayman, 1993), or objective evidence regarding the product's quality (e.g., Darley and Smith, 1993). Alternatively, via the peripheral route, individuals engage in a less effortful evaluation of the communicated message and, instead, tend to form evaluations by relying on *peripheral cues* (e.g., Kelman, 1961; Petty and Cacioppo, 1986). Unlike the issue-relevant information that provides direct support for the merits of a focal topic, peripheral cues are the remaining elements of the message, which often serve to create the message setting (Areni and Cox, 1995). For example, when evaluating a new product featured in an advertisement, individuals may process cues such as the tone or language used (Yang et al., 2006), the background music being played (Lord et al., 1995), or simply the count of arguments being made in support the product being pitched (Brinol and Petty, 2006).

A central tenet of ELM is the concept of an elaboration likelihood continuum (Petty and Cacioppo, 1986). *Elaboration* in ELM refers to a process with a very specific, narrow definition.[1] The process was named elaboration to "suggest that people add something of their own to the specific information provided in the communication…beyond mere verbatim encoding of the information provided" (Petty and Wegener, 1999: 46). Additionally, the elaboration likelihood continuum describes the extent to which elaboration is contingent upon individuals' *ability* and *motivation* to assess the merits of a focal person, issue, or object in a particular decision context (Petty and Cacioppo, 1986; Petty and Wegener, 1998). Motivation is most commonly operationalized as the personal relevance or importance of the topic at hand (e.g., price or importance of a consumer good), while ability refers to the extent to which one possesses expertise or experience with the topic at hand (Bhattacherjee and Sanford, 2006). When individuals are both able and motivated to evaluate a message, they are more likely to be high on the elaboration continuum. As one moves higher on the elaboration continuum, evaluations of the focal topic become more dependent upon central route processes while the impact of peripheral route processes diminish, and vice versa (Petty and Wegener, 1998). It is in this way that elaboration represents the differentiating factor between the central and peripheral routes (Crano and Prislin, 2006; Petty and Cacioppo, 1986).

Despite the relatively straightforward nature of ELM, the theory does recognize the relatively complex nature of persuasion. Regarding the ultimate formation of evaluations, the tradeoff hypothesis suggests that regardless of elaboration level, both central and peripheral route

[1] Elaboration is an internal cognitive process engaged in by *the person being persuaded*. In this context, these are the potential funders. Thus, it is not the entrepreneur who elaborates upon their arguments in order to persuade. Instead, funders in a high elaboration likelihood state cognitively elaborate upon the issue-based information that the entrepreneur has set forth. They do this by taking the entrepreneur's informational messages and adding their own relevant knowledge to create a more complex, nuanced view of the entrepreneur's issue-based information.

processes may occur and, ultimately, influence one's evaluation regarding the focal topic. When individuals transition to higher elaboration likelihood, peripheral route processes do not cease to occur – central route processes do not "take-over". Rather, the impact of peripheral route processes on one's evaluations begins to decrease (Petty and Wegener, 1998). The same is true in reverse: a transition to low elaboration likelihood does not result in a shut-down of central route processes, but it does make peripheral route processes more impactful. Moreover, despite the existence of two distinct routes, it is not suggested that the central route will lead to different outcomes when compared to the peripheral route, and vice versa (Bhattacherjee and Sanford, 2006). Rather, it is reasonable to assume that two separate individuals may arrive at the same decision (e.g., provide capital to an entrepreneur) despite being influenced by different routes (i.e., central or peripheral). At the same time, we can also speculate that two separate individuals may arrive at different decisions (e.g., to provide capital to an entrepreneur and no to do so) despite being influenced by the same route (cf. Tihanyi et al., 2003), given that issue-relevant information may hold different value according to existing knowledge stocks and past experiences of the individual evaluating (Ratneshwar and Chaiken, 1991).

4.1. ELM in Crowdfunding

In recent years, scholars have employed ELM in a variety of internet-based contexts. Through this application, a body of evidence suggests that organizations can use internet-based communications as an effective means for changing the attitudes of both potential customers (Petty and Wegener, 1999) and other various stakeholders (Tam and Ho, 2005). Moreover, it also appears that such internet-based communications may enable organizations to foster trust (Zheng et al., 2016) and even increase the purchase intentions of potential customers (Richard, et al., 2010). Collectively, this research highlights the value of ELM in its ability to explain how organizations are able to persuade outside individuals to take a desired action, particularly via

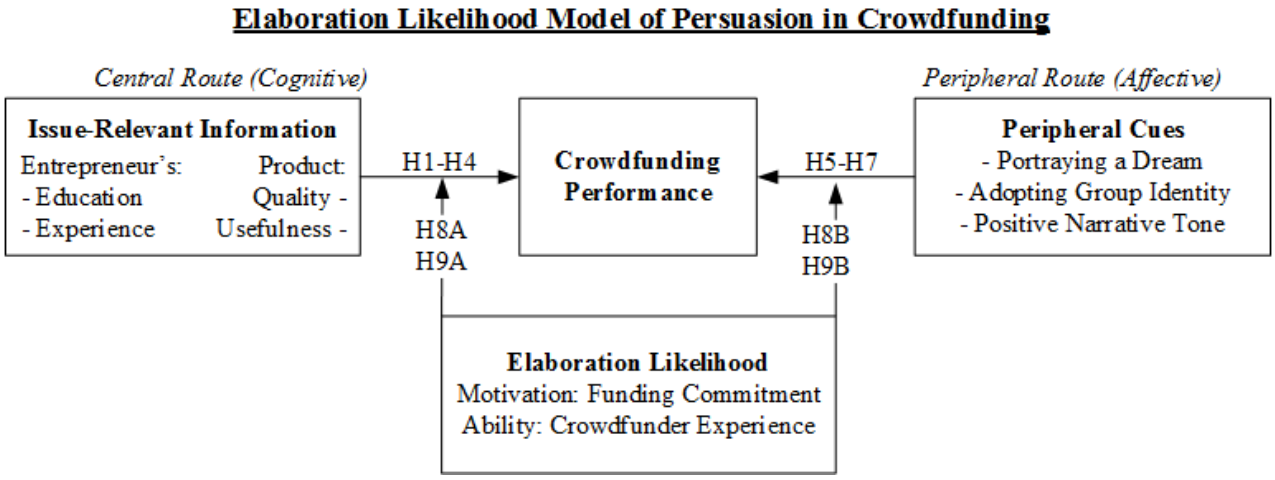
internet-based platforms. Given that crowdfunding takes place through the internet and involves entrepreneurs attempting to persuade funders to provide financial capital, ELM seems to have untapped potential for explaining this phenomenon.

Unlike traditional forms of financing, which often provide funds for general growth, crowdfunding requires entrepreneurs to seek funds in support of a specific product (Davis et al., 2017). When applying ELM to products, issue-relevant information typically consists of credible, specific evidence directly relating to the offering and producer, while peripheral cues constitute the remaining elements of the message (Angst and Agarwal, 2009; Inman et al., 1990). For example, when evaluating a pitch for a new product, persuasion via the central route may be influenced by the presence of strong, fact-based arguments (Angst and Agarwal, 2009; Petty and Cacioppo, 1986) such as known or verifiable attributes of a product and/or brand (Inman et al., 1990). At the same time, persuasion via the peripheral route may be influenced by the presence of affective components in the message (Miniard et al., 1991), variations in mood or tone underlying the message (Lord et al., 1995; Yang et al., 2006), or even the perceived status of the source delivering the message (Bhattacherjee and Sanford, 2006; Petty et al., 1983).

Consistent with ELM, the route through which potential funders are persuaded to provide capital is expected to be contingent upon their position on the elaboration likelihood continuum. Unlike traditional investors, funders are often novices with little to no formal investment experience (Davis et al., 2017). However, when determining one's ability in a given decision context, it is important to consider topic-specific knowledge (Wood et al., 1995). Taking this perspective, the ability of the general funder population is likely quite heterogeneous as roughly thirty-two percent of all funders have provided funds multiple times, while the remaining individuals are first-time funders (Kickstarter, 2017). While the role of ability in determining

one's elaboration likelihood should not be downplayed, perhaps the most important factor is motivation (Petty and Cacioppo, 1986). In crowdfunding, it is likely that funder motivation is shaped by the amount of risk a funder has to take on in order to get a given product. Specifically, entrepreneurs provide a variety of funding levels (and accompanying rewards) at which funders may provide capital. However, the level of funds needed to obtain a specific type of reward may vary widely across funding pitches (Mollick, 2014). When the level of funds required is higher, funders are much more likely to be motivated to delve into careful consideration of issue-relevant information. In the following sections, we develop and test the theoretical model displayed below in Figure 1.

Figure 1.
Elaboration likelihood model of persuasion in crowdfunding



5. Hypothesis Development

5.1. Central Route

The focal point in a crowdfunding pitch typically consists of a specific product or service that is to be further developed by the entrepreneur(s). Heightening the importance of this focal point, entrepreneurs reward funders that choose to provide financial capital by promising them a variety of future tangible rewards, often including the product or service being pitched. Mirroring research examining persuasion via advertisements, this suggests that potential funders' evaluations

will encompass issue-relevant information consisting of credible content directly relating to the entrepreneur and the product being pitched (Angst and Agarwal, 2009; Inman et al., 1990).

Entrepreneurs typically enjoy autonomy in terms of constructing the message underlying their crowdfunding pitch (cf. Allison et al., 2015) and, as such, a variety of issue-relevant information can be present. ELM research in related contexts suggests that two distinct categories of issue-relevant information exist: information regarding the product and information regarding the venture providing the product (Darley and Smith, 1993; MacInnis and Stayman, 1993). Similarly, research in entrepreneurship suggests that, when evaluating early-stage ventures, resource providers look to information regarding both the market offering being pitched and the entrepreneur's ability to successfully create that offering (Davis et al., 2017; Mitteness et al., 2012). Following this logic, in crowdfunding, we suggest that funders will look for evidence of the entrepreneur's competence and ability, in the form of their education, and their relevant experience. These two attributes are entrepreneur-specific issue-relevant information that is relatively objective and verifiable in nature (Angst and Agarwal, 2009; Inman et al., 1990; Petty and Cacioppo, 1986), as well as prevalent within the crowdfunding context. The other category of information pertains to the product itself. We draw from prior ELM research that suggests that product quality and product usefulness are of paramount concern (e.g., Darley and Smith, 1993). We suggest that the issue of quality will be addressed by information on ingredient branding, while the issue of usefulness will be addressed by information on market offering interconnects.

5.1.1. Entrepreneurs' Ability: Education and Experience

Persuasion is more likely to occur via the central route when receivers view the source of a given message as credible (Bredahl et al., 1998; Priester and Petty, 1995). Given that credibility suggests the source is knowledgeable (Eagly et al., 1978), perhaps one of the most common sources of credibility, as well as predicted ability, is an entrepreneur's human capital (Backes-

Gellner and Werner, 2007; Zimmerman, 2008). In the context of entrepreneurial resource acquisition, human capital has long been cited as a factor of key interest in determining new venture performance via entrepreneur ability (Baum and Silverman, 2004; Chemmanur and Paeglis, 2005).

Entrepreneurs obtain human capital through both formal education and work experience (Dimov and Shepherd, 2005). Entrepreneurs' level of education and experience provides insight into their ability to navigate complex task environments (Zimmerman, 2008), innovate (Bantel and Jackson, 1989), and successfully enact plans (Mitteness et al., 2012). Moreover, given that both education and experience-based credentials communicate readily known meaning, they not only enhance confidence in potential funders, but also provide evidence that the entrepreneur is in line with widely recognized norms and expectations (Nagy et al., 2012). Collectively, the relatively objective and verifiable nature of entrepreneurs' education and experience-based backgrounds suggests that these attributes serve as issue-relevant information that may be communicated to potential resource providers via funding pitches (Angst and Agarwal, 2009; Petty and Cacioppo, 1986). For example, the inclusion of issue-relevant information regarding entrepreneurs' human capital may be valued by funders as an indicator that their money will be spent wisely (e.g., Zimmerman, 2008) and bolster confidence in entrepreneurs' ability to produce and deliver a quality product (e.g., Jain and Tabak, 2008). Thus, for funders doing business with a crowdfunding entrepreneur, the issue-relevant information of education and experience is analogous to an established firm's reputation for producing quality products or for good customer service. Moreover, even in the absence of a tangible reward, such issue-relevant information may continue to be valued as an indicator of the entrepreneurs' ability to effectively pursue and achieve

goals that the funder thought worthy enough to support with his or her funds (cf. Sargeant, 1999). Therefore, we hypothesize the following:

> *Hypothesis 1:* For crowdfunding ventures, entrepreneur education will have a positive relationship with crowdfunding performance.
>
> *Hypothesis 2:* For crowdfunding ventures, functional experience of the entrepreneur will have a positive relationship with crowdfunding performance.

5.1.2. Product Quality and Usefulness

Entrepreneurs and the products that they produce represent tightly intertwined components of the venture. Due to this dynamic, is has been said that a successful venture must have both a strong horse and a strong jockey (Mitteness et al., 2012). Reflecting this sentiment, the quality of a given product has been found to be important for both resource providers (Aaker and Jacobson, 1994) and consumers alike (Kirmani and Rao, 2000). Although a product's quality may be evaluated in a number of ways, from an ELM perspective, the focus has most commonly been placed on issue-relevant information regarding objective evidence of overall quality (Darley and Smith, 1993), such as specific benefits and costs (e.g., Areni, 2003; MacInnis and Stayman, 1993) or the general superiority of the product in relation to competing offerings (Petty et al., 1983).

Individuals' ability to effectively evaluate and scrutinize issue-relevant information is contingent upon the possession of topic-specific knowledge (Wood et al., 1995). Reflecting this reality, individuals often make sense of new products by drawing upon their knowledge of, and creating links with, existing products (Pollack et al., 2012). As a result, entrepreneurs may influence how market offerings are perceived by external stakeholders by framing them in a way that is both understandable and acceptable (Lounsbury and Glynn, 2001). However, entrepreneurs may face a number of barriers in attempting to create perceptions of quality via marketing-related decisions (Kirmani and Rao, 2000), due to the existence of limited resources (Aldrich and Ruef,

2006). This reality becomes particularly salient within the context of crowdfunding as ventures are typically in the earliest stages of development (e.g., Ahlers et al., 2015).

Faced with resource constraints, entrepreneurs may instead borrow perceptions of product quality via ingredient branding, in which entrepreneurs use the products of other established organizations as components of their own market offerings (Keller, 2003). For example, when constructing their rolling camera tripod, the venture Cineskates utilized wheels from a well-known manufacturer in an attempt to ensure funders of the product's quality. Ingredient branding helps outside individuals make sense of a product's unique value-added benefits and can also provide a halo effect in which the legitimacy of the ingredient enhances the perception of the overall product (Desai and Keller, 2002). Ingredient branding has been found to increase both initial acceptance and long-term growth for new products (Loken, 2006).

Despite the potential benefits of ingredient branding, such a strategy may not always represent a viable strategy for entrepreneurs facing situations such as highly novel production requirements or extreme capital constraints. In such instances, or perhaps even alongside ingredient branding, entrepreneurs may also borrow perceptions of quality by creating interconnects between their product and existing offerings (e.g., Lounsbury and Glynn, 2001). For example, entrepreneurs seeking crowdfunding have created accessories specifically for an Apple iPhone or a Yeti cooler. The creation of interconnects, by describing a new product in relation to existing products, enables entrepreneurs to borrow quality perceptions by tapping into individuals' existing schemas (Hargadon and Douglas, 2001). In doing so, entrepreneurs may be able to resolve external perceptions of product uncertainty by enabling individuals to more readily make sense of how the product works and what the specific benefits are (Rosa et al., 1999).

Drawing upon the preceding arguments, we suggest that entrepreneurs influence funders by providing issue-relevant information regarding the meaning, benefits, and overall quality of the product being pitched (Areni, 2003; Darley and Smith, 1993) via ingredient branding and interconnects. Formally, we hypothesize:

> *Hypothesis 3:* For crowdfunding ventures, ingredient branding will have a positive relationship with crowdfunding performance.

> *Hypothesis 4:* For crowdfunding ventures, pitching a product that interconnects with or serves as a complement to an existing, successful product will have a positive relationship with crowdfunding performance.

5.2. Peripheral Route

Individuals' evaluations can also be shaped by a less-effortful thought process through which they rely upon peripheral cues (Crano and Prislin, 2006). In the crowdfunding context, in addition to looking to credible key evidence of quality regarding the product or entrepreneur(s), funders can look to other elements of the message that create the message setting (Areni and Cox, 1995; Richard, 2005), such as relatively subjective, affect-based elements (Miniard et al., 1991) or the underlying tone (Lord et al., 1995; Yang et al., 2006). We build on extant research and limit our discussion to three peripheral cues: portraying the venture as a dream, portrayal of group identification, and the presence of a positive tone underlying the pitch.

5.2.1. Characterizing the Venture as a "Personal Dream"

Prior entrepreneurial resource acquisition research has suggested that ventures often construct narratives around dreams (Lounsbury and Glynn, 2001). Describing a venture as a life-long dream may help to frame its importance or meaning, thus providing a potentially valuable cue to prospective funders. When leaders connect "goals to a 'dream' or a utopian ideal vision of a better future" (Shamir et al., 1993: 585), they personalize their ventures and convey their own enthusiasm and excitement that can serve to engender a positive affective response among funders

(e.g., Cardon, 2008). Conveying their visions as long-term goals or dreams creates the perception that entrepreneurs are dedicated to achieving these entrepreneurial visions (e.g., Oettingen et al., 2001). Doing so represents an important component in the process of goal realization, and individuals' (i.e., in this case, entrepreneurs') expectations of success are strongly associated with underlying goal commitment (Oettingen et al., 2001). Accordingly, we suggest that entrepreneurs' use of peripheral cues in the form of framing their venture as a "dream" will create a message setting that increases the likelihood of funder cooperation via affective response. Formally, we hypothesize:

> *Hypothesis 5:* For crowdfunding ventures, portraying the venture as a personal dream will positively influence crowdfunding performance.

5.2.2. Adopting and Communicating a Group Identity

Entrepreneurs may also better appeal to funders by utilizing peripheral cues that consist of collective language (e.g., Van Rooy, 2003). Collective language emphasizes the distinctiveness of the group and increases the salience of the group identity in members' self-concepts (Shamir et al., 1993). The self is a highly accessible memory structure and, as a result, increasing group salience in the message receiver may increase persuasion (Klein et al., 1994; West et al., 2004). Prior work has suggested that the effectiveness of narratives is influenced by social identification (Martens et al., 2007). By calling for commitments using a group identity, entrepreneurs and others make an implicit statement that they are committed to working with others (e.g., Swank and Visser, 2007). In framing the problem of venture financing as an opportunity that permits sharing in the solution, trust and in turn cooperation are both increased (McLain and Hackman, 1999).

When entrepreneurs convey peripheral cues to funders such as, '*we* can do this together' or 'come be a part of *our* team' versus 'I need your help' or 'I am almost there,' they are using language that calls for commitments using a group identity. Funders may feel more comfortable

providing capital for a venture when they feel the message suggests that they can become socially engaged and help others, despite not having a long-term, vested interest in the venture (Brabham, 2010; Buettner, 2015; Calic and Mosakowski, 2016). Indeed, by engendering a group identity, entrepreneurs may engender affective commitment among funders and present an image of likeability (cf. Ashforth and Mael, 1989). Taken together, we suggest that peripheral cues that engender a group identity will cause potential funders to self-identify as members of that group (e.g., Stryker and Burke, 2000). This adoption of identity will in turn cause funders to be more likely to provide support in the form of financial capital. Formally:

> *Hypothesis 6:* For crowdfunding ventures, the portrayal of group identification between the entrepreneur and prospective funders will have a positive relationship with crowdfunding performance.

5.2.3. Narrative Tone

With regards to setting (Areni and Cox, 1995), the underlying tone of a given message (Lord et al., 1995; Yang et al., 2006) represents perhaps one of the most salient peripheral cues. Positivity represents an important element of entrepreneurial pitches (Martens et al., 2007). Narratives frequently adopt an optimistic, positive tone in an effort to create a likeable story (Martens et al., 2007) and engender positive feelings in the receiver (Dillard and Peck, 2000; Nan, 2008). Indeed, the use of positive tone in one's language increases the potential that individuals will be liked by others (Curtis and Miller, 1986) and influences the efficiency and cooperativeness of individuals' interactions with others (Hecht and LaFrance, 1995).

Entrepreneurs in crowdfunding ventures engage prospective funders through the construction of entrepreneurial narratives during the solicitation period (Allison et al., 2015). As might be expected, entrepreneurs often speak positively of themselves, their products, and their ventures, which manifests as positive tone in the entrepreneurial narrative. For example, positive tone may reflect optimism in the potential of an entrepreneur's ability to reach her goals or deliver

a high-quality product (Davis et al., 2012; Loughran and McDonald, 2011). In addition to increasing funder confidence, positive tone may also lead funders to experience positive affect (Bono and Ilies, 2006) or to become ingratiated and, in turn, become more likely to support the entrepreneur's funding efforts (cf. Gooty et al., 2010). Collectively, we expect that peripheral cues, in the form of positive narrative tone, will have a positive impact crowdfunding performance. Formally:

> *Hypothesis 7:* For crowdfunding ventures, positive tone in the crowdfunding solicitations will have a positive relationship with crowdfunding performance.

5.3. The Moderating Role of Funder Motivation and Ability

One's position on the elaboration likelihood continuum is contingent upon their *ability* and *motivation* to assess the merits of a focal topic within a specific decision context (Petty and Cacioppo, 1986; Petty and Wegener, 1998). In the following, we discuss how funders' ability and motivation influence elaboration likelihood within the context of crowdfunding.

5.3.1. Funder Motivation

The cognitive effort required for one to elaborate upon issue-relevant information via central route processes is quite high (Bhattacherjee and Sanford, 2006). Given that cognitive resources are limited, individuals generally avoid engaging in effortful thought unless the situation motivates them to do so (Petty and Wegener, 1998). Under ELM, motivation is typically operationalized as the extent to which an individual perceives the message's focal topic as personally relevant or important (Petty and Cacioppo, 1986). However, the extent to which one views a topic as personally relevant or important is highly individualistic and context specific (Petty and Wegener, 1998).

In transaction-based contexts, such as consumer purchasing or crowdfunding, personal relevance and importance are often influenced by considerations of price (Inman et al., 1990; Kim

and Benbasat, 2009). Prices, both those experienced in past transactions or those found through current search efforts, play an important role as reference points that influence both cognitive and emotional decisions (cf., Mukhopadhyay and Johar, 2007; Park and Lennon, 2004). When prices are lower than one's referents, individuals become more likely to engage in peripheral route processes (Strack and Deutsch, 2006), while prices above one's referents increase the likelihood of cognitive decisions based on issue-relevant information (e.g., Areni, 2003; Bhattacherjee and Sanford, 2006). Individuals become increasingly motivated to engage in elaborative, central route processes as the price required to obtain a given product rises higher (Kim and Benbasat, 2009).

The centrality of products in crowdfunding, coupled with the presence of tangible rewards that are often the very product being created, suggests that price represents a particularly salient factor within the context (Groth, 1995; Kim and Benbasat, 2009). Looking to the world's largest crowdfunding platform, Kickstarter, roughly 99% of all campaigns feature tangible reward options, such as an early version of the product being pitched. These rewards are offered to funders at a variety of funding levels that may range from as little as $1 to several hundred dollars. As a result, funders are confronted with significantly varying levels of funding commitments (i.e., prices) that are required to obtain a given reward. This suggests that when funding commitments are high, relative to funders' reference points, the effect of issue-relevant information on crowdfunding performance will be strengthened, and the same will be true for cues when funding commitments are low. Therefore, we hypothesize:

> *Hypothesis 8A:* High funding commitments will strengthen the effect of issue-relevant information on crowdfunding performance.
>
> *Hypothesis 8B:* Low funding commitments will strengthen the effect of cues on crowdfunding performance.

5.3.2. Funder Ability

ELM also posits that an individual's place on the elaboration likelihood continuum is also

dependent upon ability (Bredahl et al., 1998; Priester and Petty, 1995). In general, ability refers to the extent that one possesses prior knowledge or expertise with the topic at hand (Bhattacherjee and Sanford, 2006). Context-specific knowledge garnered through past experience (Wood et al., 1995), provides the cognitive foundation that enables one to engage in cognitively rigorous elaboration (Petty and Cacioppo, 1986; Petty and Wegener, 1998). Reflecting this, individuals who lack ability, may not be able to engage in elaboration due to the inability to fully comprehend the information being presented. In other words, as one's level of ability decreases, they become increasingly dependent upon peripheral route processes, while the impact of central route processes diminishes (Petty and Wegener, 1998).

Drawing upon the conceptualization of ability as context-specific experience (Bhattacherjee and Sanford, 2006), we can define funder ability in the context of crowdfunding as the extent of past backing experience. The ubiquity of layperson funders, coupled with the rapid growth of crowdfunding, suggests that funder ability is quite heterogeneous (Davis et al., 2017). For example, the world's largest crowdfunding platform, Kickstarter, has seen roughly 12.8 million funders provide capital since 2009 but only thirty-two percent of those individuals are repeat funders (Kickstarter, 2017). Through their previous backing experience, funders are more likely to possess knowledge regarding product quality, entrepreneur quality, or other context-specific issues. As a result, previous backing experience should increase the likelihood that funders will engage in elaboration and be influenced by central route processes, while experiencing a decreased reliance upon peripheral cues. Formally, we hypothesize:

> *Hypothesis 9A:* High funder experience will strengthen the effect of issue-relevant information on crowdfunding performance.
>
> *Hypothesis 9B:* Low funder experience will strengthen the effect of peripheral cues on crowdfunding performance.

6. Method and Results: Study 1: Crowdfunding Platform

6.1. Data

Since we sought to understand if ELM might serve as a broad model for rewards-based crowdfunding, we focused on the crowdfunding platform Kickstarter.com. Kickstarter has been cited as the largest rewards-based crowdfunding platform in North America, in terms of both venture utilization and the level of capital provided by funders (Davis et al., 2017). Since its inception in 2009, Kickstarter has provided entrepreneurs with roughly $2.7 billion (Kickstarter, 2017) and reported a success rate of roughly 36 percent (i.e., percentage of ventures which achieve their stated funding goals), closely mirroring the success rates of ventures in the open market (e.g., Spinelli and Adams, 2012). To control for country effects, we limited the sample to U.S.-based ventures. To capture a cross-section of all crowdfunding projects on the platform, avoid sample-selection bias, and avoid the threat to validity posed by "cherry-picking," we downloaded all project pages every day, adding new projects daily, over a 90-day period from September to November 2011. This resulted in data on 383 crowdfunded ventures in a broad range of industries with differing funding needs (ranging from $40 to $500,000) and funding amounts pledged (ranging from $0 to $76,697). On average, the ventures in the sample received pledges accounting for 81.18% of their stated funding goals. Among the crowdfunding ventures that achieved their stated funding goals, in which case they were distributed funds (N=212, approximately 56% of cases in our sample), the average total funding amount received was $7,811.

To ensure our sample of 383 ventures was representative of the broader population of crowdfunding campaigns on Kickstarter, we compared this set against all other crowdfunding pitches on the same platform in the same year (a single year was used to ensure comparability of economic conditions). This data was collected for all projects, without regard to success/failure, from the Kickstarter crowdfunding platform. This population numbered 20,724 observations. Table 1 reports characteristics of the sample and characteristics of the population. We performed t-tests for mean differences across a variety of variables. These included project success, amount of funds raised, the number of funders, the number of funder comments, the number of project updates, and the rewards offered to funders. None of these variables exhibited significant mean differences; thus, we concluded it was likely that our sample was statistically indistinguishable from the population from which it was drawn.

6.2. Measures

6.2.1. Independent Variables

Data for the independent, dependent, and control variables were obtained through manual coding. Following earlier work (e.g., Deeds et al., 1997; Zimmerman, 2008), data for our study were coded directly from the venture-funding pages by two of the study's authors and a trained research assistant. Data was coded from both video and text within each venture-funding page.

Table 1. Sample characteristics and population comparison

	Sample			Population		
Variables	**Mean**	**s.d.**	**Median**	**Mean**	**s.d.**	**Median**
Successfully Funded (0/1)	0.55	0.50	1	0.56	0.50	1
Funded Amount (USD)	$4836	$9110	$1776	$4673	$18904	$1503
Funding Requested (Goal) (USD)	$12275	$39975	$5000	$9050	$35739	$4000
Number of Funders	62.45	140.12	28	62.69	214.03	25
Number of Funder Comments	5.72	28.01	1	6.41	52.70	1
Number of Project Updates	5.27	7.24	3	4.84	7.44	2
Funder Rewards (Number Offered)	8.24	3.72	8	8.00	4.02	8
Platform Featured Campaign (0/1)	0.10	0.30	0	0.09	0.29	0

Upon completion of the initial coding process, the data was examined and found to have an interrater reliability of 0.98 with a range of 0.97 to 0.99.

Coders obtained variable data directly from each venture funding page. To do so, the coders looked to the video, text, images (when present), owner biography, rewards associated with each level of funding, and profiles of each funder who provided capital. We operationalized *entrepreneur education* (H1) as a dichotomous variable, coded 1 when the lead entrepreneur had a college degree, and 0 otherwise (e.g., Bantel and Jackson, 1989; Cohen and Dean, 2005). Lead entrepreneur was defined as the individual who (1) delivered the majority of the video pitch and/or (2) created the funding campaign. *Entrepreneur experience* (H2) was operationalized as a dichotomous variable which was coded as 1 if the lead entrepreneur's prior functional experience was garnered in the same, or related, industry as their current venture, and 0 otherwise (e.g., Cohen and Dean, 2005).

Ingredient branding (H3) was operationalized as a dichotomous variable that was coded as 1 if the crowdfunding page highlighted use of component parts from other companies, and coded 0 otherwise. *Product interconnections* (H4) was operationalized as a dichotomous variable that was coded as 1 if the crowdfunding page highlighted ways in which their product interoperates with products from other companies, and coded 0 otherwise.

We operationalized *entrepreneur's dream* (H5) as a dichotomous variable coded as 1 if the entrepreneur stated that the venture was his or her dream or long-term goal, and 0 otherwise. *Group identity* (H6) was operationalized as a dichotomous variable, coded as 1 if the entrepreneur referred to funders by using the words 'we' and/or 'together' when requesting support (e.g., "together, we can make this happen", as opposed to "for this to happen, we need your help"), and

0 otherwise. We operationalized *positive narrative tone* (H7) using the validated positive tone dictionary developed by Loughran and McDonald (2011). As these dictionaries were originally developed for modeling the effect of tone in companies' disclosure statements on a broad range of financial outcomes, our application of these variables is similar to their original use (Loughran and McDonald, 2011). We ran the dictionary against the crowdfunding narrative (i.e., text only) using computer-aided text analysis software, which produced a continuous measurement based on the number of times positive words from the dictionaries occurred within the written narrative.

High funding commitment (H8A) and *low funding commitment* (H8B) were operationalized by first examining the funding commitments required of prospective funders in order to secure an extrinsic reward across all crowdfunding campaigns posted to Kickstarter prior to the sample we drew. Since the hypothesis relies on a logic of price reference points (Dawson and Kim, 2009; Strack and Deutsch, 2006), it was necessary to look at the prices previously set for the lowest-priced extrinsic reward category offered by other crowdfunding entrepreneurs as a reference point. Through this review, we found that the median value was $10. Thus, we coded high funding commitment as 1 when the *lowest-priced extrinsic reward* offered by a campaign in our dataset was above this value, and 0 otherwise; low funding commitment was coded as 1 when the lowest-priced extrinsic reward offered by a campaign in our dataset equaled $10 or less. The dollar amount required for "high funding commitment" was an average of $34.58, compared to an average of $6.94 for "low funding commitment."

High funder experience (H9A) and *low funder experience* (H9B) were operationalized by collecting data on all funders of each campaign in our data. For each campaign, we calculated the number of first-time funders and the number of experienced funders. The variable high funder experience takes on a value of 1 when there are more experienced than first-time funders, and zero

otherwise. The variable low funder experience takes on a value of 1 when there are more first-time than experienced funders, and zero otherwise. We represented the variable dichotomously to match our conceptualization of backer experience as a threshold effect.

6.2.2. Control Variables

We controlled for a set of variables relevant to both the resource endowment of the entrepreneur, their attractiveness to potential funders, their likelihood of achieving funding, and predictors for their ability to deliver the rewards they are promising to funders, which are potential alternate explanations for our elaboration likelihood model hypotheses. The controls used are as follows: geographic location, industry, lead entrepreneur race, lead entrepreneur gender, top management team size, social network shares, the presence of extrinsic rewards, venture development stage, and funding goal.

First, environmental munificence can vary geographically (Pouder and St. John, 1996), so we also included dummy variables to control for the physical location of the crowdfunding campaigns. The campaigns in our sample were distributed among 5 U.S. cities, so this entailed 4 dummy variables. While used, this control is not reported for parsimony. Second, differences in required funding may exist across industries, and the Kickstarter platform distinguished thirteen industry classifications. As a result, we employed twelve dummy variables, using ‘art’ as the reference category. Third, extant research suggests that resource providers may hold biases that stem from entrepreneurs’ race or gender (e.g., Becker-Blease and Sohl, 2007; Marlow and Patton, 2005). We controlled for *lead entrepreneur race* using a dichotomous variable coded ‘1’ for ventures led by a Caucasian and coded ‘0’ otherwise. We controlled for *lead entrepreneur gender* with a dichotomous variable (coded ‘1’ for male).

Next, larger top management teams (TMT) represent an important resource for ventures in that they are likely to possess higher levels of knowledge and creativity (e.g., Walters et al., 2010;

Higgins and Gulati, 2006). We controlled for *TMT size* through a scaled variable coded as the number of entrepreneurs on the venture's top management team. Similarly, benefits stemming from social influence, visibility, or network ties may be obtained from external connections to social media platforms such as Facebook (e.g., Mollick, 2014). We controlled for *social network shares* through a scaled variable coded as the number of times the venture's funding page was 'shared' on Facebook.

While ventures on crowdfunding platforms tend to be quite nascent in their development, differences do exist and may impact the way in which they are perceived by potential funders (e.g., Parhankangas and Ehrlich, 2014). Thus, we controlled for *venture stage* through a scaled variable coded as 0 when funds were sought to begin development of the product, coded as 1 when funds were sought to continue development, and coded as 2 when funds were sought to take the product to market. Next, given the absence of financial rewards within the context, ventures are limited to rewarding funders through extrinsic rewards (e.g., the product being funded) or intrinsic gifts (e.g., a simple thank you). To account for the potential of reward type to influence the path to persuasion, we controlled for *resources: rewards* through a dichotomous variable coded '1' for ventures that offered one or more extrinsic rewards and coded '0' otherwise. Finally, given the general heterogeneity of ventures that utilize crowdfunding, differences also exist with regards to the level of funds being requested (Mollick, 2014). To control for the potential of an entrepreneur's *funding goal* to influence crowdfunding outcomes, we utilized a scaled variable coded as the dollar amount being sought by each venture.

6.2.3. Dependent Variable and Modeling

The dependent variable was whether the venture met its funding goal. On crowdfunding platforms such as Kickstarter, the venture receives $0 if campaigns fail to meet their goal. Thus, hitting the goal is a critical outcome. The modeling method was industry-clustered ordinary least

squares regression with robust standard error estimates in order to provide conservative parameter estimates. Industry-clustering was used because projects in different industry categories may vary significantly in terms of the outcomes they achieve. As this may result in unevenly distributed residuals, industry clustering accommodates any potential heteroscedasticity.

6.3. Results

Table 2 presents descriptive statistics for the independent and dependent variables. Table 3 presents the results of our regression models. Model 1 includes only the control variables. Models 2-8 present each hypothesis test individually, and Model 9 presents the full main model. Hypothesis 1 predicted that entrepreneur education would be significantly related to funding performance. The education variable was found to be statistically significant, but negatively correlated to funding performance (b = -0.75; p = .016), thus Hypothesis 1 was not supported. Experience and ingredient branding were both significant and in the expected direction (experience: b = 0.62; p = .037; ingredient branding: b = 2.41; p < .001), thus we found support for Hypotheses 2 and 3. Product interconnections were also significant and positive (b = 3.05; p < .001), supporting Hypothesis 4.

Portraying the venture as a personal dream was positive and significant (b = 1.00; p = .004), supporting Hypothesis 5. Adopting a group identity was similarly positive and significant in its effect on venture funding (b = 1.65; p = .008), suggesting support for Hypothesis 6. Positive tone did not reach significance, though it was positive in direction as hypothesized (b = 0.07; p = .155). Thus, Hypothesis 7 was not supported. Overall in our unmoderated analysis we found support for five of seven hypotheses, with a sixth hypothesis significant but in the opposite direction as we expected (education).

We then move on to test our final four hypotheses. Each hypothesis is modeled multiple times. H8A and H9A are each modeled four times, once for each issue-relevant information

variable. H8B and H9B are each modeled three times, once for each of the three peripheral cue variables. Figure 1, in section 4.1 visualizes these relationships. We tested Hypothesis 8A by reparametrizing the model used in the test of the main effects using a factorial interaction. The first measure, education, was found to strengthen its effect in its interaction with high funding commitment, and this estimate was significant (b = -1.10; p = .001). However, the sign remained negative. We then tested experience. This interaction was not significant (b = 0.31; p = .395). We then tested ingredient branding's interaction with high funding commitment. We found that ingredient branding's effect did strengthen in the presence of high funding commitments (b = 1.40; p = .004), as expected. Finally, we tested product interconnections, which also strengthened in the presence of high funding commitments (b = 2.20; p < .001).

Hypothesis 8B was similarly tested with a factorial interaction for the first two main effects, and a continuous-categorical interaction for the third main effect, narrative tone. The first measure tested was portrayal of the venture as a personal dream. The interaction was positive as expected, and significant (b = 0.96; p = .040). We then tested the adoption of a group identity. We found that group identity's effect strengthens in its interaction with low funding commitment, and this was significant (b = 1.57; p = .027). Finally, we tested low funding commitment's interaction with positive narrative tone. We found that the coefficient estimate was positive and significant (b = 0.10; p = .039). Overall, of the seven motivation moderation effects, 5 of 7 were both in the expected direction and significant. Thus, we find partial, though strong, support for Hypotheses 8A and 8B. We build upon these results in the following, post-hoc section, and find support for a sixth positive and significant interaction.

Table 2. Descriptive statistics and correlations

Variables	Mean	s.d.	VIF	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Funded	0.55	0.50	DV															
2. Log Funding	6.89	2.56	DV	0.64														
3. Requested Funding	12274.80	39975.04	1.07	-0.18	-0.09													
4. Lead Ent. Race	0.74	0.44	1.17	0.17	0.21	-0.11												
5. Lead Ent. Gender	0.61	0.49	1.14	-0.18	-0.11	0.05	0.06											
6. Ent. Team (TMT) Size	1.79	1.39	1.09	0.11	0.16	0.04	-0.03	0.06										
7. Venture Stage	0.20	0.40	1.10	0.07	0.03	-0.03	0.04	0.00	-0.02									
8. Social Net. Shares	2.15	14.64	1.13	0.12	0.11	-0.01	0.03	0.05	0.02	-0.02								
9. Resources: Rewards	0.33	0.47	1.18	-0.04	-0.02	-0.07	-0.03	0.09	-0.05	0.04	-0.08							
10. Education	0.20	0.40	1.11	-0.07	-0.07	-0.04	0.07	0.05	-0.09	0.00	0.03	0.04						
11. Experience	0.72	0.45	1.15	0.11	0.14	-0.01	0.19	0.05	0.01	0.03	0.06	-0.03	0.16					
12. Quality/Ingr. Branding	0.08	0.26	1.16	0.16	0.18	0.00	0.06	0.03	0.10	-0.02	0.21	-0.05	0.01	-0.02				
13. Usefulness/Interconnections	0.04	0.19	1.30	0.05	0.09	0.07	-0.03	0.05	0.04	0.00	-0.02	-0.11	0.00	-0.03	0.09			
14. Portrayal of Dream	0.18	0.38	1.07	0.13	0.09	-0.05	0.03	-0.07	0.01	0.07	-0.04	-0.07	-0.03	0.03	-0.01	-0.02		
15. Adopted Group Identity	0.08	0.27	1.08	0.15	0.15	-0.02	0.00	-0.02	0.01	-0.05	-0.04	0.06	-0.05	0.06	0.02	-0.01	0.04	
16. Positive Narrative Tone	4.88	3.26	1.12	0.12	0.20	-0.02	0.01	-0.10	-0.03	0.07	0.01	0.05	-0.01	-0.01	0.05	0.00	0.04	0.09

N=383. Correlations whose absolute value exceeds 0.10 are significant at $p < .05$

Table 3. Logistic regression analysis on crowdfunding success (funded)

Variables	Model 1 Controls Only	Model 2 IRI: ENT: EDU	Model 3: IRI: ENT: EXP	Model 4: IRI: PROD: QUAL	Model 5: IRI: PROD: USE	Model 6: PERIPH: DREAM	Model 7: PERIPH: GROUP	Model 8: PERIPH: TONE	Model 9: FULL MODEL
Control Variables									
Requested Funding	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Lead Ent. Race	0.89***	0.93***	0.79**	0.90**	1.01***	0.91***	0.91**	0.90**	1.02**
	(0.27)	(0.27)	(0.30)	(0.28)	(0.26)	(0.26)	(0.29)	(0.31)	(0.34)
Lead Ent. Gender	-0.77***	-0.77***	-0.79***	-0.77***	-0.84***	-0.74***	-0.80***	-0.72***	-0.83***
	(0.16)	(0.16)	(0.16)	(0.13)	(0.14)	(0.17)	(0.17)	(0.15)	(0.17)
Ent. Team (TMT) Size	0.24	0.23	0.24	0.21	0.24	0.24	0.24+	0.25	0.22+
	(0.16)	(0.16)	(0.16)	(0.13)	(0.16)	(0.16)	(0.15)	(0.15)	(0.12)
Venture Stage	0.30	0.31	0.31+	0.36+	0.35+	0.21	0.38+	0.26	0.32
	(0.19)	(0.19)	(0.19)	(0.18)	(0.19)	(0.19)	(0.19)	(0.18)	(0.22)
Social Net. Shares	0.10	0.10	0.11	0.10	0.10	0.10	0.10	0.10	0.10+
	(0.08)	(0.08)	(0.08)	(0.07)	(0.07)	(0.08)	(0.08)	(0.07)	(0.06)
Resources: Rewards	-0.03	-0.01	-0.03	-0.00	0.04	0.03	-0.07	-0.08	0.12
	(0.22)	(0.24)	(0.22)	(0.22)	(0.22)	(0.24)	(0.23)	(0.21)	(0.26)
Independent Variables									
Education		-0.47*							-0.75*
		(0.22)							(0.31)
Experience			0.50+						0.62*
			(0.28)						(0.30)
Quality/Ingredient Branding				2.15***					2.41***
				(0.57)					(0.42)
Usefulness/Interconnections					2.31***				3.05***
					(0.68)				(0.62)
Portrayal of Dream						0.88**			1.00**
						(0.29)			(0.35)
Adopted Group Identity							1.70**		1.65**
							(0.65)		(0.62)
Positive Narrative Tone								0.08*	0.07
								(0.04)	(0.05)
Constant	-0.35	-0.24	-0.57+	-0.56*	-0.48*	-0.64+	-0.32	-0.66	-1.42**
R^2 (Pseudo)	0.186	0.191	0.193	0.214	0.202	0.200	0.210	0.196	0.291
Wald χ^2	62.70	66.15	66.38	71.36	68.47	65.66	70.79	66.27	89.05

N = 383 + p < .10 *p < .05 **p < .01 ***p < .001; Robust Standard Errors in parentheses. Industry and location dummies included in all models, coefficient estimates not printed for parsimony. There are 4 location dummies (5 categories), 12 industry dummies (13 categories).

The procedure for testing H9A and H9B was identical. The first H9A interaction measure, education, was found to strengthen its effect in its interaction with high funder experience, though this estimate was not significant (b = 2.38; p = .175). Entrepreneur experience was also found to strengthen its effect in its interaction with high funder experience, and this was significant (b = 2.46; p = .001). We then tested ingredient branding's interaction with high funder experience. We found that ingredient branding's effect did strengthen in the presence of high experience (b = 3.73; p = .024), as expected. Our final Hypothesis 9A test was product interconnections, which also strengthened in the presence of high experience (b = 1.40; p = .004).

The first H9B interaction measure tested was portrayal of the venture as a personal dream. We found a positive and significant interaction of low funder experience with portraying the venture as a personal dream (b = 1.28; p = .026). We then tested group identity's interaction with low funder experience. This hypothesis test produced an estimate that was in the hypothesized direction, but not significant (b = 1.85; p = .103). Finally, we tested low funder experience's interaction with positive narrative tone. We found that the coefficient estimate was positive, but short of significance (b = 0.09; p = .146). Overall, of the seven ability moderation effects, 4 of 7 were in the expected direction and statistically significant. The remaining three were in the hypothesized direction but had p -values ranging from .103 to .175. Overall, we find partial support for Hypotheses 9A and 9B.

6.3.1 Post-hoc Test

Given our surprising finding of a negative main and moderated effect of education on funding outcomes, we conducted additional analyses to better understand this surprising effect. These tests are necessarily post hoc and should be viewed in that light. Given the different cognitive loads in processing various types of information, we considered whether some issue-

relevant information, such as education, might only become salient to potential funders at higher funding commitments. Thus, we returned to the full-population data to establish a second pricing reference point (e.g., Strack and Deutsch, 2006). This procedure established that 99 percent of all crowdfunding projects feature an extrinsic reward that is priced below $100. Accordingly, we generated a dummy interaction variable, *very high funding commitment*, which is equal to 1 when the minimum extrinsic reward is at or above this level. Testing this moderator in the same way as before, we found that very high funding commitment did strengthen the effect of education as expected. We found that very high funding commitment apparently increased funders' valuation of the education issue-relevant information, flipping the sign to a positive coefficient estimate and a significant p-value estimate (b = 1.27; p = .029). While we cannot interpret this as a formal finding alone, taken together with our hypothesized motivation moderation effects tested by H8A and H8B, this does support the idea that the central route is given greater weight when potential funders are placing more at risk. In contrast, when funders are placing small amounts at risk, the effect of the peripheral route is strengthened.

7. Study 2: Method and Results for a Decision Experiment

While our theoretical model deals with individual-level decisions, crowdfunding produces only aggregate data at the venture level. Accordingly, to build more evidence for such a model we undertook a second study. The second study's design is an experiment, with crowdfunding narratives manipulated to vary the presence of issue-relevant information and peripheral cues. The benefit of an experimental method is that this also allows us to examine different decisions depending on ability and motivation. As a result, we are able to provide evidence suggestive of causal relationships, which in turn may somewhat diminish concerns about endogeneity.

7.1. Data

The mTurk platform has seen productive use as a source of survey and experimental participants in prior management research (Chua, 2013; Welsh and Ordóñez, 2014; Yam et al., 2017). mTurk-type samples have "great potential for organizational researchers." (Landers and Behrend, 2015: 12). Recent work has suggested that properly-designed surveys and experiments conducted with mTurk participants are consistent with the psychometric standards of prior work (e.g., Buhrmester et al., 2011; Welsh and Ordóñez, 2014). Aguinis and Lawal (2012) were among the first to write about the methodological considerations salient to mTurk-conducted experiments. We followed their recommendations in developing our experimental protocol. In addition, we avoided potential threats to validity outlined by Landers and Behrend (2015): the problem of repeated participation was avoided, as this was a one-time experiment. Paying participants is only a threat to validity if compensation level "can be theoretically linked to effect size" (Landers and Behrend, 2015: 12). This is not the case here. Finally, given that we seek in our main study to build knowledge on crowd-based phenomena, drawing participants from mTurk is highly valuable since the platform users reflect a non-professional crowd.

We recruited a group of 154 participants on the Amazon Mechanical Turk (mTurk) crowdsourcing platform. Each was paid $3.00 for participating in the experiment, which took the average participant 20.1 minutes to complete. This rate of compensation is at or somewhat above that used in recent management research (cf. Bendersky and Shah, 2013; Welsh and Ordóñez, 2014). Participants were screened to identify if they were over the age of 18, and whether they were located in the United States. This geographic restriction was set given that our experiment seeks to build up to our main analysis, which consists primarily of US-based funders. We enforced this restriction through three separate technical means. We also required that participants be familiar with crowdfunding, as the task involved evaluating crowdfunding narrative pitches.

7.2. Experimental Design and Instrument

The experiment consisted of informed consent, screener questions, demographic questions, and a series of 16 crowdfunding narratives that we adapted from actual crowdfunding campaigns and manipulated to present varying issue-relevant information and peripheral cues. As a check against inattentive participants (e.g., Meade and Craig, 2012), directed answer, manipulation check, and content check questions were presented to participants (Highhouse, 2009; Huang et al., 2012). As a result of these procedures, four participants were eliminated from the experiment, resulting in a final total of 150 participants. Each was asked to rate 16 profiles, though due to abandoned sessions, the total number of rated profiles was 2,351. The profiles were presented in random order to each participant. 48 such profiles were created by the authors, in three sets, each set covering a different fictional venture with a different product/technology. This was done to reduce the threat to validity arising from coder fatigue. Participants were randomly assigned to a different venture's profile with every profile assignment. To ensure comparability, each participant saw a matching profile from the same set when testing between levels of a given condition (e.g., high versus low education). An example profile is excerpted below:

> Seeking $100 funding! You'll receive: ONE Everyday Tote in the color of your choice (you'll choose later).
>
> My dream is to create a multi-purpose backpack tote. Designed by photographers, built for everyone. I have a college degree in design and ten years of experience designing bags for L.L. Bean. Our incredible bag will be crafted with only the highest-quality parts. The bag has pockets to fit your Android or Apple smartphone. Together, we can make this happen!

A series of instruments, including timers and countdown clocks, were used to monitor the online experiment and help participants maintain their attention on the task. Participants appeared to be very attentive – the correct-answer rates for the three directed answer questions were 99.4%, 99.3%, and 99.8%; for the manipulation check questions (administered twice): 97.1%; for the

content check question, 99.3%. These attainment rates are in-line with typical expectations (e.g. Maniaci and Rogge, 2014; McKibben and Silvia, 2015); participants who answered any check question incorrectly were removed. Participants mean age was 34.7 years (SD = 10.3). They were split approximately 40% female, 60% male (males = 61.3%). The participants identified themselves to be 81% white, 12% African American or black, 9% Asian, 1.4% Native American (totals exceed 100% because participants were allowed to select multiple racial backgrounds). The participants were 13% Hispanic. Overall, non-white and Hispanic people made up 32.5% of the participants. 70% were working, 16% were self-employed, 7.5% were looking for work, with the balance retired, disabled, or in some other status. Average work experience was 13.3 years (SD = 9.8). The mean level of household income reported was $40,000-$49,999 per year, though the sample was well dispersed across income bands. 78% were either college graduates or had attended some college (44% had bachelor's degrees). About 10% had higher degrees, and another 11% had high school diplomas. 98% owned smartphones, all had at least some interest in the three products our profiles featured: a tote bag, a card game, a smartphone accessory. All reported high levels of confidence in their understanding of crowdfunding. The participants had previously viewed an average of 30 crowdfunding campaigns (SD = 38.3), and reported contributing to an average of 2 campaigns in the past (SD = 2.93). 62.4% of the participants reported some prior investment experience (i.e., personal finances).

Participants were presented with a crowdfunding entrepreneurial narrative funding appeal, which was created based on the actual crowdfunding appeals used in our main study. For issue-relevant information, there were two types: producer-specific and product-specific. For producer-specific, two variables were manipulated: education and experience (education: "I have a college degree in electrical engineering."/"I have a high school diploma."). For product-specific, quality

and usefulness were manipulated. Peripheral cues were manipulated by substituting the word “my dream” in for “my idea” in two sentences, by substituting “we” for “I” in two sentences, and by modulating the ratio of positive to negative words. The moderator of motivation was manipulated by altering the requested funding commitment from $5 to $100. These values were selected based on common funding levels seen in Study 1. The ability moderator was each participant’s individual past experience in contributing to crowdfunding projects. Most participants (36%) had no experience – zero projects contributed to in the past. 22% had contributed to one project, 17% to two, with the remainder reporting contributing to three or more.

Participants were asked to read each narrative and then assess whether they would back that project, whether they would back that project assuming they needed the offered reward, and their opinion of the quality of the project. These ratings used a 5 point Likert-type scale, with anchors of Strongly Agree and Strongly Disagree. Given recent moves toward index measures in similar work (conjoint analysis of investment decisions; Drover et al., 2014), we computed a single dependent variable that was equal to the arithmetic mean of the three scale questions. The DV is ordinal, thus we used hierarchical ordered Probit regression to analyze both the main effects and their interactions with the elaboration likelihood moderators: motivation and ability.

7.3. Results

Education and experience were both found to be positively related to participants’ evaluations of the crowdfunding projects (b = 0.29; $p < .001$; b = 0.67; $p < .001$). Participants also responded positively to ingredient branding (b = 0.33; $p = .002$), although only for the tote-bag product. This observation raises important methodological considerations for both experimental and archival research. The same applied to usefulness in the form of product interconnects (b = 0.22; $p = .047$): we found a significant main effect for the smartphone accessory product, but not

in narratives based on other industries. The peripheral cue of positive narrative tone was positive, though only at reduced significance (b = 0.10; p = .068), though this may be due to sample size. Both group identity and personal dream presented surprises in their main effects in the experiment. Framing a venture as a personal dream was significant but was negatively related to participants' evaluations of the ventures (b = -0.15; p = .004); adopting a group identity was not significant (b = -0.07; p = .228). Consultations with participants suggest that in our efforts to ensure reliability and causal inference in this experiment, we may have sacrificed too much realism.

Of greatest interest to us in this small experiment was to probe the structure of our model, to see if it indeed operates as proposed. Here, we are able to report that this is largely the case. The elaboration likelihood interactions are motivation (funding commitments) and ability (funder experience). For education, funding commitments appear to enhance its importance (b = 0.20; p = .004). The same is true for funder experience – it enhances the importance of education as well (b = 0.30; p = .024). We find the same strengthening interaction for related experience: for funding commitments: (b = 0.61; p < .001); for funder experience: (b = 0.71; p < .001). We similarly find strengthening interactions in the case of ingredient branding (funding commitments [b = 0.419; p < 0.001]; funder experience [b = 0.19; p = .064]) as well as for usefulness in the form of product interconnects (funding commitments [b = 0.25; p < .001]; funder experience [b = 0.16; p = .063]).

Turning to the peripheral cues, and beginning with the message-setting cue of presenting the venture as a personal dream, we see that elaboration likelihood from motivation (funding commitments) significantly weakens the influence of this cue on participants' evaluations (b = -0.25; p < .001). While elaboration likelihood from ability (past crowdfunding experience) is negatively related to participant's evaluations of the venture, this is not significant (b = -0.15; p = .244). With the second peripheral cue, espousing a group identity, we also see that elaboration

likelihood from motivation (funding commitments) significantly weakens the influence of this cue on participants' evaluations (b = -0.19; p = .012). However, although ability in the form of past crowdfunding experience has a negative influence on this cue when ability is high, this is not a significant relationship (b = -0.07; p = .611). With the third peripheral cue, positive narrative tone, we observe no significant moderation for either funding commitments (b = -0.01; p = .841), nor by past crowdfunding experience (b = 0.09; p = .508).[2]

8. Discussion

Relatively little is known about the extent to which early-stage ventures employ persuasive messages as a means of attracting funding. Herein, we leveraged ELM to provide theory for the to-date most popular crowdfunding context, reward-based crowdfunding, where traditional entrepreneurial resource acquisition theories may not provide a fully satisfactory explanation. Overall, we found considerable support for ELM in crowdfunding.

Synthesizing what we observed across both studies, including post-hoc analyses, we found that the entrepreneur-specific issue-relevant information of education and experience were both positively related to crowdfunding performance. Both education and experience were also strengthened under conditions of higher elaboration likelihood. Education's effect was strengthened by funding commitment in both our post-hoc analysis of Study 1 and in Study 2. The effect of education was also strengthened by funders' prior crowdfunding experience in Study 2 (Study 1 we found a positive but insufficiently significant coefficient estimate). Entrepreneur prior related experience was not strengthened by higher funding commitments in Study 1, but this was observed in Study 2. The effect of entrepreneurs' related experience was strengthened by funders' prior crowdfunding experience in both Studies 1 and 2. We found that the product-specific issue-

[2] Interaction plots were consistent with these findings; plots available from the authors upon request.

relevant information of quality (ingredient branding) and usefulness (product interconnections), was positively related to crowdfunding performance in both studies. Our measure of quality was strengthened under conditions of higher elaboration likelihood. Funder motivation arising from higher funding commitments, and funder ability arising from prior funder crowdfunding experience were positive and significant moderators in all 8 tests (both quality and usefulness and both motivation and ability, across both Study 1 and Study 2).

Peripheral cues included portraying the venture as a personal dream, espousing a group identity, and positive narrative tone. Portraying the venture as a personal dream was positively related to crowdfunding performance in Study 1, and was strengthened under conditions of lower elaboration likelihood, such as when funder motivation or funder ability is lower, due to lower minimum funding commitments or lower prior funder crowdfunding experience. We did not find these hypothesized effects in Study 2. We believe this occurred for one (or both) of two reasons. First, consultations with participants suggest that in our efforts to ensure reliability and causal inference in this experiment, we may have sacrificed too much realism for these two effects to have worked. Outside of an experiment, funders are drawn to specific entrepreneurs and projects, rather than being randomly assigned to them, as in the experiment. Further, our real-world data is rich with personal details and information that may be vital to achieving the central-route shifting effect of this particular peripheral cue. Second, the experimental context may result in participants maintaining a higher level of focus, resulting in a greater likelihood of central route processing.

Espousing a group identity was also positively related to crowdfunding performance in Study 1, and was strengthened under conditions of lower elaboration likelihood, such as when funder motivation or funder ability is lower, due to lower minimum funding commitments or lower prior funder crowdfunding experience. However, the motivation moderator seemed to have

a more significant effect ($p < .05$), than did the ability moderator (marginal significance, $p = .103$). As with the previous peripheral cue, we did not find these expected effects in Study 2, and we believe the cause is the same.

The final peripheral cue, positive narrative tone, was positively related to crowdfunding performance in Study 1, but at an unacceptable level of significance ($p = .155$). Under conditions of lower elaboration likelihood, this cue was strengthened. Again, the motivation moderator (low funding commitment) had a more significant effect ($p < .05$), than did the ability moderator, which was not significant. Again, as with the previous peripheral cue, it proved difficult to replicate the nuances of this cue experimentally. While the main effect was positive, it was short of significance ($p = .063$); neither the motivation nor the ability moderator was significant with positive narrative tone in Study 2.

Our findings contribute to and extend the emerging stream of research surrounding the context of crowdfunding. Extant research on crowdfunding, although limited, is quite diverse and has examined a variety of factors. For example, scholars have sought to explore the influence of objective characteristics associated with the funding page such as geographic location, funding level (Mollick, 2014), and reward type (Belleflamme et al., 2014). Alternatively, others have focused on more psychological and sociological factors such as funder motivation (Cholakova and Clarysse, 2015) or the influence of entrepreneurs' within-platform social capital (Colombo et al., 2015). Viewed in this research stream, the dual process structure of the elaboration likelihood model examined in this work has provided us with a much more nuanced understanding of crowdfunding outcomes. Where education apparently had a paradoxically negative effect on funding performance, we in fact find evidence that this is only so when the amounts at risk are very small. When the amounts are considerable, funders prefer the higher human capital implied

by higher education. Similarly, while our initial findings for portraying a venture as a personal dream were contrary to our expectations, ELM provides the theoretical structure to understand that the type of cue involved in characterizing a venture as a personal dream seems to actually be quite effective at low individual funding amounts. Thus, when risk is quite low, these emotional appeals succeed. When risk is higher, it appears that funders give more weight to cognitive messages and place less emphasis on peripheral cues.

Prior work on persuasion in entrepreneurship has tended to minimize the differences between issue-relevant information and cues, suggesting that they function equivalently (Chen et al., 2009). This is certainly plausible in the professional investor contexts most often studied in the past. Such investors are often both able and well-motivated; however, given the relatively high financial stakes associated with traditional contexts, they may consciously seek out (or desire) strong, issue-relevant information that is supported by strong cues.

Our results also highlight some of the complexities associated with more detailed models of crowdfunding. For example, in our experimental results, we found that some issue-relevant information tended to only be regarded as salient in specific industries (quality was only significant for our tote-bag product scenario; usefulness in the form of product interconnects was only significant for our smartphone accessory scenario). While one possibility is that this is an artifact of the experimental design, we believe it likely that industry and technology may have material interactions with some forms of issue-relevant information.

Overall, our study is also the first in the entrepreneurship literature to be built comprehensively around ELM. While Martens and colleagues make a single ELM argument to support their second hypothesis, their focus is on storytelling, not on ELM. Their use of the term "elaboration" is in the meaning of "story elaboration" (2007: 1107), which is done by

entrepreneurs in their narratives. Alternatively, in ELM theory, "elaboration" is a cognitively intense process of evaluating issue-relevant messages, which is done by the individuals being persuaded (i.e., the potential funders). Nevertheless, their study presents an important complementary view to our own by finding evidence that entrepreneurs can excessively elaborate their narratives, suggesting that funders may experience information overload that undermines the funders' own elaboration and, ultimately, willingness to provide funding.

8.1. Limitations and Future Research

Our study's contributions should be understood in light of the limitations of our work. First, this study relies on data from a single crowdfunding platform. There are a number of rewards-based crowdfunding platforms and each is tailored towards a specific mission. Also, crowdfunding platforms may vary in terms of both usage guidelines (e.g., some platforms require funding goals to be met for ventures to receive money, while others do not) and the overall cost of usage for entrepreneurs (e.g., platform and fund-processing fees). However, we believe that the similarities between platforms enable our results to be generalizable, particularly in terms of the deal structure and funding goals, both of which are generally standardized across platforms that include only non-financial rewards. Finally, we necessarily drew upon existing research to guide us in discerning what issue-relevant information or peripheral cues may be of interest in the crowdfunding context. An examination of other possible elements may provide further insights into how entrepreneurs attract funding via persuasion. For example, future research may wish to examine the extent to which industry influences the importance of moderators in ELM models. Similarly, some industry contexts may dictate the selection of moderators that are of particular importance. Variable measures may also need to be tailored to the context. In this paper, the data suggested that over $100 was a good representation of "high funding commitment," which in turn makes elaboration more likely. In other contexts, such as equity crowdfunding, or in

crowdfunding ventures in industries with expensive products – such as vehicles, audiophile/ cinephile equipment, and luxury goods and services, such a relatively low cutoff would not capture the threshold of higher elaboration likelihood. Thus, future work will need to continue to evaluate what triggers are appropriate in their specific context.

Second, given the nature of our data, we recognize the potential for endogeneity. Indeed, in nearly all organizational research, endogeneity stands as a risk. We made a number of choices in this study to reduce that risk. First, with regard to simultaneity, the dependent variable crowdfunding performance is determined after all independent variables are fixed. Because of this temporal distance, simultaneous/loop causation is not possible. To limit the potential for selection-bias-caused endogeneity, we included all crowdfunded ventures on the platform over the study period, regardless of outcome. Further, we conducted a second study via different means (an experiment), to see if we found similar results. Nevertheless, an endogeneity issue may remain. For example, additional controls, may help further isolate the persuasion effects we describe. One potential class of controls we are particularly optimistic about are reading level/writing sophistication controls on the entrepreneurial narrative, which could capture differences in ability to articulate a more persuasive message (e.g., Cumming et al., 2017).

Third, aside from endogeneity, there also exists the potential for unobserved heterogeneity. While we sought to exclude selection effects and selection bias as much as possible by studying all ventures seeking crowdfunding on a given platform during the study period, it remains possible that insufficient randomness in the sample has resulted in unaccounted for differences between the ventures and crowdfunding campaigns studied. For example, some ventures may be of an objectively higher quality, some entrepreneurs may have greater abilities in persuasion, and some venture teams may put more effort into their crowdfunding campaigns. These are serious potential

threats to validity that remain difficult to detect, isolate, and control for. While raters can reach some level of agreement on the apparent quality of a venture, this factor still remains somewhat "in the eye of the beholder." A "quirky" crowdfunding campaign may appear unprofessional to an academic evaluator, but may resonate greatly with its intended audience. Future crowdfunding research would be strengthened by seeking out evaluations of such factors from actual funders of crowdfunding campaigns, after the campaign has concluded. As an input into research, controlling for unobserved heterogeneity, such data would be highly valuable.

Limitations notwithstanding, our findings have implications for both research and practice. Future research might employ a grounded theory approach (Jennings et al., 2015) to gain further insight into differences of motivation and other characteristics between funders and traditional investors. For example, as compared to traditional investors, funders may be more susceptible to persuasive efforts due to their general lack of experience and non-financial motivations (e.g., Lin et al., 2014; Ordanini et al., 2011). Such studies might also attempt to glean insight into how these differences affect the level of value funders place on certain entrepreneur- or venture-level characteristics, particularly as compared to traditional investors.

Several major areas of entrepreneurship research where ELM would be valuable are directly complimentary to the topic of this paper. One, assembling a venture team, tends to follow soon after initial fundraising. Unquestionably, this is a task that involves persuasion. Very often, potential high-value team members will be only slightly interested in the venture in the beginning (a state of low elaboration likelihood). Finally, research on opportunity creation and entrepreneurial bricolage would also benefit from examining the potential of ELM for answering previously unresolved questions. Opportunity creation clearly involves persuading potential customers that a need exists, potential suppliers to provide more favorable terms, and other

stakeholders similarly. ELM provides a model for studying this process. Bricolage entails necessary persuasion. Bricoleurs take harsh resource environments and make do with what is on hand (e.g., Baker and Nelson, 2005). They are not daunted by a lack of resources, recognizing instead the social construction of their resource environment. Yet realizing that, how do bricoleurs persuade potential partners, employees, and funders that their business is viable? Overall, ELM presents a solid framework for scholars to experiment with the use of persuasion by entrepreneurs.

For practitioners, financial capital represents the most important missing ingredient to support entrepreneurial activity in developing economies (Mead and Liedholm, 1998). Such internet-based crowdfunding platforms may enable entrepreneurs in developing economies to overcome barriers, such as time or distance, that often impede their ability to attract capital (e.g., Kiva). On a separate point, given the nascent stage of development of ventures on crowdfunding platforms, disclosure and the competitive risks that may result can be a potentially significant concern. Our perusal of crowdfunding websites suggests that issue-relevant information that might pose disclosure risks are generally not present (i.e., entrepreneurs normally do not provide details or schematics of their technology). While entrepreneurs may possess sources of advantage that form the basis of issue-relevant information, disclosing this information in their pitches could place the entrepreneurs at a significant competitive disadvantage as competitors imitate them (Guo et al., 2004). Fortunately, our findings suggest that entrepreneurs can use peripheral cues as substitutes for the disclosure of key sources of advantage at least in some cases.

References

Aaker, D.A., Jacobson, R. 1994. The financial information content of perceived quality. *Journal of Marketing Research*, 31, 191-201.

Ahlers, G., Cumming, D., Gunther, C., Schweizer, D. 2015. Signaling in equity crowdfunding. *Entrepreneurship Theory & Practice*, 39, 955-980.

Aldrich, H., Ruef, M. 2006. *Organizations Evolving*. Sage, Thousand Oaks, CA.

Allison, T.H., Davis, B.C., Short, J.C., Webb, J.W., 2015. Crowdfunding in a prosocial microlending environment: Examining the role of intrinsic versus extrinsic cues. *Entrepreneurship Theory & Practice*, 39, 53-73.

Aguinis, H., Lawal, S.O. 2012. Conducting field experiments using eLancing's natural environment. *Journal of Business Venturing*, 27, 493-505.

Angst, C.M., Agarwal, R. 2009. Adoption of electronic health records in the presence of privacy concerns: The elaboration likelihood model and individual persuasion. *MIS Quarterly, 33*, 339-370.

Areni, C.S. 2003. The effects of structural and grammatical variables on persuasion: An elaboration likelihood model perspective. *Psychology & Marketing*, 20, 349-375.

Areni, C.S., Cox, K.C. 1995. Assessing the impact of message cues and arguments in persuasion: Conceptual and methodological issues. *Advances in Consumer Research*, 22, 198-202.

Ashforth, B.E., Mael, F. 1989. Social identity theory and the organization. *Academy of management review*, 14, 20-39.

Backes-Gellner, U., Werner, A. 2007. Entrepreneurial signaling via education: a success factor in innovative start-ups. *Small Business Economics*, 29, 173-190.

Baker, T., Nelson, R.E. 2005. Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage. *Administrative Science Quarterly*, 50, 329-366.

Bantel, K., Jackson, S. 1989. Top management and innovations in banking: does the composition of the top team make a difference? *Strategic Management Journal*, 10, 107-124.

Baum, J.A., Silverman, B.S. 2004. Picking winners or building them? Alliance, intellectual, and human capital as selection criteria in venture financing and performance of biotechnology startups. *Journal of Business Venturing*, 19, 411-436.

Becker-Blease, J.R., Sohl, J.E. 2007. Do women-owned businesses have equal access to angel capital? *Journal of Business Venturing*, 22, 503-521.

Belleflamme, P., Lambert, T., Schwienbacher, A. 2013. Individual crowdfunding practices. *Venture Capital*, 15, 313-333.

Belleflamme, P., Lambert, T., Schwienbacher, A. 2014. Crowdfunding: Tapping the right crowd. *Journal of Business Venturing*, 29, 585-609.

Bendersky, C., Shah, N.P. 2013. The downfall of extraverts and rise of neurotics: The dynamic process of status allocation in task groups. *Academy of Management Journal*, 56, 387-406.

Bhattacherjee, A., Sanford, C. 2006. Influence processes for information technology acceptance: An elaboration likelihood model. *MIS Quarterly*, 30, 805-825.

Bono, J.E., Ilies, R. 2006. Charisma, positive emotions and mood contagion. *The Leadership Quarterly*, 17, 317-334.

Buhrmester, M., Kwang, T., Gosling, S.D. 2011. Amazon's Mechanical Turk a new source of inexpensive, yet high-quality, data?. *Perspectives on Psychological Science*, 6, 3-5.

Brabham, D.C. 2010. Moving the crowd at Threadless: Motivations for participation in a crowdsourcing application. *Information, Communication & Society*, 13, 1122-1145.

Bredahl, L., Grunert, K.G., Frewer, L.J. 1998. Consumer attitudes and decision-making with regard to genetically engineered food products–a review of the literature and a presentation of models for future research. *Journal of Consumer Policy*, 21, 251-277.

Briñol, P., Petty, R.E. 2006. Fundamental processes leading to attitude change: Implications for cancer prevention communications. *Journal of Communication*, 56, S81-S104.

Bruton, G., Khavul, S., Siegel, D., Wright, M. 2015. New Financial Alternatives in Seeding Entrepreneurship: Microfinance, Crowdfunding, and Peer-to-Peer Innovations. *Entrepreneurship Theory & Practice*, 39, 9-26.

Buettner, R. 2015. A Systematic Literature Review of Crowdsourcing Research from a Human Resource Management Perspective. In *System Sciences (HICSS), 2015 48th Hawaii International Conference.* IEEE, pp. 4609-4618.

Calic G., Mosakowski E., 2016. Kicking Off Social Entrepreneurship: How A Sustainability Orientation Influences Crowdfunding Success. *Journal of Management Studies*, 53, 738-767.

Cardon, M.S. 2008. Is passion contagious? The transference of entrepreneurial passion to employees. *Human Resource Management Review*, 18, 77-86.

Carter, R., Manaster, S. 1990. Initial public offerings and underwriter reputation. *The Journal of Finance*, 45, 1045-1067.

Chaiken, S., Trope, Y. 1999. *Dual-process theories in social psychology*. Guilford Press, New York.

Chemmanur, T.J., Paeglis, I. 2005. Management quality, certification, and initial public offerings. *Journal of Financial Economics*, 76, 331-368.

Chen, X.P., Yao, X., 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., Clarysse, B. 2015. Does the Possibility to Make Equity Investments in Crowdfunding Projects Crowd Out Reward-Based Investments? *Entrepreneurship Theory and Practice*, 39, 145-172.

Chua, R.Y. 2013. The costs of ambient cultural disharmony: Indirect intercultural conflicts in social environment undermine creativity. *Academy of Management Journal*, 56, 1545-1577.

Cohen, B.D., Dean, T.J. 2005. Information asymmetry and investor valuation of IPOs: top management team legitimacy as a capital market signal. *Strategic Management Journal*, 26, 683-690.

Converse, P.E. 1970. Attitudes and non-attitudes: Continuation of a dialogue. In Tufte, E.R. (Ed.), The quantitative analysis of social problems. Addison-Wesley, Reading, MA, pp. 168-189.

Cope, J. 2005. Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 4, 373-397.

Courtney, C., Dutta, S., Li, Y. 2017. Resolving information asymmetry: Signaling, endorsement, and crowdfunding success. *Entrepreneurship Theory and Practice*, *41*, 265-290.

Crano, W.D., Prislin, R. 2006. Attitudes and persuasion. *Annu. Rev. Psychol.*, 57, 345-374.

Colombo, M.G., Franzoni, C., Rossi-Lamastra, C. 2015. Internal social capital and the attraction of early contributions in crowdfunding. *Entrepreneurship Theory and Practice*, *39*, 75-100.

Cumming D.J., Leboeuf G., Schwienbacher A., 2017. Crowdfunding cleantech. *Energy Economics*, 65, 292-303.

Curtis, R.C., Miller, K. 1986. Believing another likes or dislikes you: behaviors making the beliefs come true. *Journal of Personality and Social Psychology*, 51, 284-290.

Darley, W.K., Smith, R.E. 1993. Advertising claim objectivity: Antecedents and effects. *The Journal of Marketing*, 57, 100-113.

Davis, A.K., Piger, J.M., Sedor, L.M. 2012. Beyond the Numbers: measuring the Information

Content of Earnings Press Release Language. *Contemporary Accounting Research*, 29, 845-868.

Davis, B.C., Hmieleski, K.M., Webb, J.W., Coombs, J.E. 2017. Funders' positive affective reactions to entrepreneurs' crowdfunding pitches: The influence of perceived product creativity and entrepreneurial passion. *Journal of Business Venturing*, 32, 90-106.

Dawson, S., Kim, M. 2009. External and internal trigger cues of impulse buying online. *Direct Marketing: An International Journal*, 3, 20-34.

Deeds, D.L., DeCarlos, D., Coombs, J.E. 1997. The impact of firm-specific capabilities on the amount of capital raised in an initial public offering: evidence from the biotechnology industry. *Journal of Business Venturing*, 12, 31-46.

Desai, K.K., Keller, K.L. 2002. The effects of ingredient branding strategies on host brand extendibility. *The Journal of Marketing*, 66, 73-93.

Dijkstra, J.J. 1999. User agreement with incorrect expert system advice. *Behaviour & Information Technology*, 18, 399-411.

Dillard, J.P., Peck, E. 2000. Affect and Persuasion: emotional responses to public service announcements. *Communication Research*, 27, 461-495.

Dimov, D.P., Shepherd, D.A. 2005. Human capital theory and venture capital firms: exploring "home runs" and "strike outs". *Journal of Business Venturing*, 20, 1-21.

Drover, W., Wood, M.S., Fassin, Y. 2014. Take the money or run? Investors' ethical reputation and entrepreneurs' willingness to partner. *Journal of Business Venturing*, 29, 723-740

Eagly, A.H., Wood, W., Chaiken, S. 1978. Causal inferences about communicators and their effect on opinion change. *Journal of Personality and Social Psychology*, 36, 424-435.

EquityNet. 2014. *About Equity Net*. Retrieved from https://www.equitynet.com/ about-equitynet.aspx

Fazio, R.H. 1986. How do attitudes guide behavior? In Sorrentino, R.M., Higgins, E.T. (Eds.), Handbook of motivation and cognition: Foundations of social behavior. Guilford Press, New York, pp. 204-243.

Fischer, E., Reuber, A.R. 2014. Online entrepreneurial communication: Mitigating uncertainty and increasing differentiation via Twitter. *Journal of Business Venturing*, 29, 565-583.

Fisher, G., Kuratko, D.F., Bloodgood, J.M., Hornsby, J.S. 2017. Legitimate to whom? The challenge of audience diversity and new venture legitimacy. *Journal of Business Venturing*, 32, 52-71.

Frydrych, D., Bock, A.J., Kinder, T., Koeck, B. 2014. Exploring entrepreneurial legitimacy in reward-based crowdfunding. *Venture Capital*, 16, 247-269.

Goldfarb, A., Tucker, C.E. 2011. Privacy regulation and online advertising. *Management Science*, 57, 57-71.

Gooty, J., Connelly, S., Griffith, J., Gupta, A. 2010. Leadership, affect and emotions: A state of the science review. *The Leadership Quarterly*, 21, 979-1004.

Groth, J. 1995. Important factors in the sale and pricing of services. *Management Decision*, 33, 29-34.

Guo, R.J., Lev, B., Zhou, N. 2004. Competitive costs of disclosure by biotech IPOs. *Journal of Accounting Research*, 42, 319-355.

Hargadon, A.B., Douglas, Y. 2001. When innovations meet institutions: Edison and the design of the electric light. *Administrative Science Quarterly*, 46, 476-501.

Hecht, M.A., LaFrance, M. 1995. How (fast) can I help you? Tone of voice and telephone operator efficiency in interactions. *Journal of Applied Social Psychology*, 25, 2086-2089.

Higgins, M.C., Gulati, R. 2006. Stacking the deck: The effects of top management backgrounds on investor decisions. *Strategic Management Journal*, 27, 1-25.

Highhouse, S. 2009. Designing experiments that generalize. *Organizational Research Methods*, 12, 554-566.

Huang, J.L., Curran, P.G., Keeney, J., Poposki, E.M., DeShon, R.P. 2012. Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology*, 27, 99-114.

Inman, J.J., McAlister, L., Hoyer, W.D. 1990. Promotion signal: proxy for a price cut?. *Journal of Consumer Research*, 17, 74-81.

Jain, B.A., Tabak, F. 2008. Factors influencing the choice between founder versus non-founder CEOs for IPO firms. *Journal of Business Venturing*, 23, 21-45.

Jennings, J.E., Edwards, T., Jennings, P.D., Delbridge, R. 2015. Emotional arousal and entrepreneurial outcomes: Combining qualitative methods to elaborate theory. *Journal of Business Venturing*, 30, 113-130.

Keller, K.L. 2003. Brand synthesis: the multidimensionality of brand knowledge. *Journal of Consumer Research*, 29, 595-600.

Kelman, H.C. 1961. Processes of opinion change. *Public Information Quarterly*, 25, 57-78.

Kickstarter, 2017. *Kickstarter Stats* 29 April. http://www.kickstarter.com/help/stats.

Kim, D., Benbasat, I. 2009. Trust-assuring arguments in B2C e-commerce: impact of content, source, and price on trust. *Journal of Management Information Systems, 26*, 175-206.

Klein, S.B., Loftus, J., Schell, T. 1994. Repeated testing: A technique for assessing the roles of elaborative and organizational processing in the representation of social knowledge. *Journal of Personality and Social Psychology*, 66, 830-839.

Kirmani, A., Rao, A.R. 2000. No pain, no gain: A critical review of the literature on signaling unobservable product quality. *Journal of Marketing*, 64, 66-79.

Landers, R.N., Behrend, T.S. 2015. An inconvenient truth: Arbitrary distinctions between organizational, Mechanical Turk, and other convenience samples. *Industrial and Organizational Psychology*, 8, 142-164.

Li, S., Srinivasan, K., Baohong, S. 2009. Internet auction features as quality signals. *Journal of Marketing*, 73, 76-92.

Lin, Y., Boh, W.F., Goh, K.H. 2014. How different are crowdfunders? Examining archetypes of crowdfunders and their choice of projects. In *Academy of Management Proceedings*, Academy of Management, pp. 13309.

Loken, B. 2006. Consumer psychology: categorization, inferences, affect, and persuasion. *Annu. Rev. Psychol.*, 57, 453-485.

Lord, K.R., Lee, M.S., Sauer, P.L. 1995. The combined influence hypothesis: Central and peripheral antecedents of attitude toward the ad. *Journal of Advertising*, *24*, 73-85.

Loughran, T., McDonald, B. 2011. When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks. *The Journal of Finance*, 66, 35-65.

Lounsbury, M., Glynn, M.A. 2001. Cultural Entrepreneurship: stories, legitimacy and the acquisition of resources. *Strategic Management Journal*, 22, 545-564.

MacInnis, D.J., Stayman, D.M. 1993. Focal and emotional integration: Constructs, measures, and preliminary evidence. *Journal of Advertising*, 22(4), 51-66.

Macmillan, I.C., Siegel, R., Narasimha, P.N.S. 1985. Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing*, 1, 119-128.

Maniaci, M.R., Rogge, R.D. 2014. Caring about carelessness: Participant inattention and its effects on research. *Journal of Research in Personality*, 48, 61-83.

Martens, M., Jennings, J., Jennings, P. 2007. Do the stories they tell get them the money they need? The role of entrepreneurial narratives in resource acquisition. *Academy of Management*

Journal, 50, 1107-1132.

Marlow, S., Patton, D. 2005. All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship Theory and Practice*, 29, 717-735.

McKibben, W.B., Silvia, P.J. 2015. Evaluating the distorting effects of inattentive responding and social desirability on self-report scales in creativity and the arts. *The Journal of Creative Behavior*, 51, 57-69.

McLain, D.L., Hackman, K. 1999. Trust, risk, and decision-making in organizational change. *Public Administration Quarterly*, 23, 152-176.

Mead, D.C., Liedholm, C. 1998. The dynamics of micro and small enterprises in developing countries. *World Development*, 26, 61-74.

Meade, A.W., Craig, S.B. 2012. Identifying careless responses in survey data. *Psychological Methods*, 17, 437.

Miniard, P.W., Bhatla, S., Lord, K.R., Dickson, P.R., Unnava, H.R. 1991. Picture-based persuasion processes and the moderating role of involvement. *Journal of consumer research*, 18, 92-107.

Mitteness, C.R., Baucus, M.S., Sudek, R. 2012. Horse vs. jockey? How stage of funding process and industry experience affect the evaluations of angel investors. *Venture Capital*, 14, 241-267.

Mollick, E. 2014. The dynamics of crowdfunding: an exploratory study. *Journal of Business Venturing*, 29, 1-16.

Mukhopadhyay, A., Johar, G.V. 2007. Tempted or not? The effect of recent purchase history on responses to affective advertising. *Journal of Consumer Research*, 33, 445-453.

Nagy, B.G., Pollack, J.M., Rutherford, M.W., Lohrke, F.T. 2012. The influence of entrepreneurs' credentials and impression management behaviors on perceptions of new venture legitimacy. *Entrepreneurship Theory & Practice*, 36, 941-965.

Nan, X. 2008. The influence of liking for a public service announcement on issue attitude. *Communication Research*, 35, 503-528.

New York World. 1885. The Unfinished Pedestal: What shall be done with the great Bartholdi statue? *New York World*, 16 March.

Oettingen, G., Pak, H., Schnetter, K. 2001. Self-regulation of goal setting: turning free fantasies about the future into binding goals. *Journal of Personality and Social Psychology*, 80, 736-753.

Ordanini, A., Miceli, L., Pizzetti, M., Parasuraman, A. 2011. Crowd-funding: Transforming customers into investors through innovative service platforms. *Journal of Service Management*, 22, 443-470.

Parhankangas, A., Ehrlich, M. 2014. How entrepreneurs seduce business angels: An impression management approach. *Journal of Business Venturing*, 29, 543-564.

Park, J.H., Lennon, S.J. 2004. Television apparel shopping: impulse buying and parasocial interaction. *Clothing and Textiles Research Journal*, 22, 135-144.

Petty, R.E., Cacioppo, J.T., Schumann, D. 1983. Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, 10, 135-146.

Petty, R.E., Cacioppo, J.T. 1984. Source factors and the elaboration likelihood model of persuasion. In Kinnear, T.C. (Ed.), *NA-Advances in Consumer Research* (volume 11). Association for Consumer Research, Provo, UT, pp. 668-672.

Petty, R.E., Cacioppo, J.T. 1986. The elaboration likelihood model of persuasion. In Berkowitz, L. (Ed.), *Advances in experimental social psychology* (Vol. 19). Academic Press, New York, pp. 123–205.

Petty, R.E., Cacioppo, J.T., Strathman, A.J., Priester, J.R. 2005. To think or not to think: Exploring two routes to persuasion. In Brock, T., Green, M. (Eds.), *Persuasion: Psychological insights and perspectives* (2nd ed.). Sage, Thousand Oaks, CA, pp. 81–116.

Petty, R.E., Wegener, D.T. 1998. Attitude change: Multiple roles for persuasion variables. In Gilbert, D., Fiske, S., Lindzey, G. (Eds.), *The handbook of social psychology*. McGraw Hill, New York, pp. 323–390.

Petty, R.E., Wegener, D.T. 1999. The elaboration likelihood model: Current status and controversies. In Shelly, Trope, Yaacov (Eds.), Dual-process theories in social psychology. Guilford Press, New York, pp. 37-72.

Pollack, J.M., Rutherford, M.W., Nagy, B.G. 2012. Preparedness and cognitive legitimacy as antecedents of new venture funding in televised business pitches. *Entrepreneurship Theory and Practice*, 36, 915-939.

Pouder, R., St. John, C.H. 1996. Hot spots and blind spots: geographical clusters of firms and innovation. Academy of Management Review, 21, 1192-1225.

Priester, J.R., Petty, R.E. 1995. Source attributions and persuasion: Perceived honesty as a determinant of message scrutiny. *Personality and Social Psychology Bulletin*, 21, 637-654.

Ratneshwar, S., Chaiken, S. 1991. Comprehension's role in persuasion: The case of its moderating effect on the persuasive impact of source cues. *Journal of Consumer Research*,

18, 52-62.

Richard, M.O. 2005. Modeling the impact of internet atmospherics on surfer behavior. *Journal of Business Research,* 58, 1632-1642.

Richard, M.O., Chebat, J.C., Yang, Z., Putrevu, S. 2010. A proposed model of online consumer behavior: Assessing the role of gender. *Journal of Business Research*, 63, 926-934.

Rosa J.A., Porac J.F., Runser-Spanjol J., Saxon M.S. 1999. Sociocognitive dynamics in a product market. *Journal of Marketing,* 63, 64-77.

Sargeant, A. 1999. Charitable giving: towards a model of donor behavior. *Journal of Marketing Management,* 15, 215-238.

Shamir, B., House, R.J., Arthur, M.B. 1993. The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science,* 4, 577-594.

Short, J.C., Ketchen, D.J., McKenny, A.F., Allison, T.H., Ireland, R.D. 2017. Research on Crowdfunding: Reviewing the (Very Recent) Past and Celebrating the Present. *Entrepreneurship Theory and Practice*, 41, 149-160.

Spinelli, S., Adams, R. (eds). 2012. *New Venture Creation*. McGraw-Hill, New York.

Steinberg, D. 2012. *The Kickstarter Handbook: Real-Life Crowdfunding Success-Stories*. Quirk Books, Philadelphia, PA.

Strack, F., Deutsch, R. 2006. Reflective and impulsive determinants of consumer behavior. Journal of Consumer Psychology, 16, 205-216

Stryker, S., Burke, P. J. 2000. The past, present, and future of an identity theory. *Social Psychology Quarterly*, 63, 284-297.

Swank, O.H., Visser, B. 2007. Motivating through delegating tasks or giving attention. *Journal of Law, Economics, and Organization*, 23, 731-742.

Tan, J., Shao, Y., Li, Wan. 2013. To be different, or to be the same? An exploratory study of isomorphism in the cluster. *Journal of Business Venturing*, 28, 83-97.

Tihanyi, L., Johnson, R.A., Hoskisson, R.E., Hitt, M.A. 2003. Institutional ownership differences and international diversification: The effects of boards of directors and technological opportunity. *Academy of Management Journal*, 46, 195-211.

Van Rooy, R. 2003. Being polite is a handicap: toward a game theoretical analysis of polite linguistic behavior. In *Proceedings of the 9th conference on Theoretical aspects of rationality and knowledge*. New York, pp. 45-58.

Walters, B.A., Kroll, M., Wright, P. 2010. The impact of TMT board member control and environment on post-IPO performance. *Academy of Management Journal,* 53, 572-595.

Welsh, D.T., Ordóñez, L.D. 2014. Conscience without cognition: The effects of subconscious priming on ethical behavior. *Academy of Management Journal*, 57, 723-742.

West, P.M., Huber, J., Min, K.S. 2004. Altering experienced utility: The impact of story writing and self-referencing on preferences. *Journal of Consumer Research*, 31, 623-630.

Wood, W., Rhodes, N., Biek, M. 1995. Working knowledge and attitude strength: An information-processing analysis. In: Petty, R.E., Krosnick, J.A. (Eds.), *Attitude strength: Antecedents and consequences.* Lawrence Erlbaum Associate, Mahwah, NJ, pp. 283-313.

Yam, K.C., Klotz, A.C., He, W., Reynolds, S.J. 2017. From good soldiers to psychologically entitled: Examining when and why citizenship behavior leads to deviance. *Academy of Management Journal*, 60, 373-396.

Yang, S.C., Hung, W.C., Sung, K., Farn, C.K. 2006. Investigating initial trust toward e-tailers from the elaboration likelihood model perspective. *Psychology & Marketing*, 23, 429-445.

Zheng, H., Hung, J.L., Qi, Z., Xu, B. 2016. The role of trust management in reward-based crowdfunding. *Online Information Review*, 40, 97-118.

Zimmerman, M.A. 2008. The influence of top management team heterogeneity on the capital raised through initial public offering. *Entrepreneurship Theory and Practice,* 32, 391- 414.