Funders' positive affective reactions to entrepreneurs' crowdfunding pitches: The influence of perceived product creativity and entrepreneurial passion

Blakley C. Davis a,⁎, Keith M. Hmieleski b, Justin W. Webb c, Joseph E. Coombs a

a Department of Management, Virginia Commonwealth University, 301 West Main St., Richmond, VA 23284, United States
b Department of Management, Entrepreneurship, and Leadership, Texas Christian University, TCU Box 298530, Fort Worth, TX 76129, United States
c Department of Management, University of North Carolina at Charlotte, Friday Building 308A, Charlotte, NC 28223, United States

A R T I C L E   I N F O

Article history:
Received 4 October 2015
Received in revised form 28 October 2016
Accepted 31 October 2016
Available online xxxx

Keywords:
Positive affect
Affective events theory
Crowdfunding
Creativity
Passion

A B S T R A C T

This study draws upon affective events theory, research regarding funders' perceptions, and research regarding expectation alignment between products and their presenters to develop and test an indirect effects model of crowdfunding resource allocation decisions. To test our hypothesized relationships, we drew upon a sample of 102 participants who each assessed ten different product pitches made by ten different entrepreneurs. Results from the study indicate that perceived product creativity is positively related to crowdfunding performance, both directly and indirectly, via positive affective reactions of prospective funders. Moreover, we find the indirect effect of product creativity is contingent upon the extent to which funders perceive an entrepreneur to be passionate, such that perceived entrepreneurial passion increases the positive nature of the indirect effect. Implications for future theory development, empirical research and implications for practitioners are discussed as well.

© 2016 Elsevier Inc. All rights reserved.

1. Executive summary

Rewards-based crowdfunding enables entrepreneurs to garner funds in support of a specific purpose, which often centers on the development or distribution of a new, unfinished, or unproven product. Since objective evidence of product quality or potential is often unavailable, prospective funders must rely upon perceived elements of the pitch (e.g., Maxwell et al., 2011; Parhankangas and Ehrlich, 2014). Prior funding decision research has primarily focused on how pitch elements interpreted by individuals as predictors of success, such as economic viability, influence resource allocation decisions (e.g., Chen et al., 2009). There is evidence, however, suggesting that by engendering affective reactions in prospective funders, pitch elements may also influence resource allocation decisions more directly via an emotional route (Baron et al., 2006).

Even though a number of perceived pitch elements may be considered by prospective funders, one that has been consistently found to differentiate successful new products from failures is product creativity (Cooper and Kleinschmidt, 1987). A product's creativity level may both inform funders' judgements in terms of overall quality or potential (Szymanski et al., 2007; Ward, 2004) and elicit positive affective reactions in individuals who observe or experience them (Algoe and Haidt, 2009; Baron, 2008). This point is particularly important because prior research has demonstrated that positive affect may increase one's...
willingness to cooperate (Dimotakis et al., 2012) and provide support to others (Jones and George, 1998). Within the funding context, however, individuals are often unable to differentiate between affective reactions they have toward a new product pitch from their reactions to the actual product (Cialdini, 2016). As such, it stands to reason that the degree to which prospective funders experience positive affective reactions may be influenced by pitch content.

In the current study, we draw from affective events theory to examine: (1) how funders’ perceptions of a product’s creativity may influence their resource allocation decisions (at least in part) by engendering positive affective reactions; and (2) how funders’ affective reactions to product creativity are influenced by perceptions of the entrepreneur(s) delivering the pitches. Using multilevel analyses, we test our conceptual model using a two-stage study design in which 102 participants each assessed ten different, product-based, funding pitches drawn directly from the crowdfunding platform Kickstarter.

The results indicate that funding pitches are more likely to receive financial support when funders perceive the product to be creative. In line with our mediation hypothesis, we find that the effect of perceived product creativity on crowdfunding performance occurs both directly as well as indirectly (i.e., via the degree to which funders’ experience positive affective reactions), suggesting the influence of both affective reactions and merit-based judgments. Moreover, our results suggest that the indirect effect of product creativity is contingent upon the degree to which funders perceive the entrepreneur as displaying passion, such that the greater the level of perceived entrepreneurial passion, the more positive the indirect effect of product creativity with crowdfunding performance via the positive affective reactions of funders.

Our findings offer several important contributions. First, we contribute to a growing body of evidence suggesting that resource allocation decisions are not only driven by funders’ economic judgments, but may also be influenced by other individual-level attributes, such as funders’ affective reactions to the pitch (e.g., Baron et al., 2006). Second, by explicitly focusing on product creativity, we extend the stream of literature concerning the influence of funders’ perceptions in determining their capital allocation decisions (Maxwell and Lévesque, 2014; Mitteness et al., 2012). Moreover, while this work has typically focused on independent effects, we provide evidence for an interaction effect between funders’ perceptions of the products pitched and their perceptions of the pitching entrepreneur (Kamins, 1989; Till and Busler, 2000). Third, our findings extend the use of affective events theory within the entrepreneurship literature to include how funders’ actions may influence prospective funders’ affective states, subsequently influencing their decision-making behavior. More broadly, we demonstrate how affective events theory can be used to predict the mechanisms through which the actions of organizational leaders may influence the reactions and behaviors of external stakeholders. Lastly, we integrate additive log-ratio transformation for the use of compositional data (Aitchison, 1986) into the entrepreneurship literature. In doing so, we provide an avenue through which scholars may obtain more nuanced measurements of ipsative decision contexts, such as resource allocation decisions made by entrepreneurs or investors alike.

2. Introduction

Rewards-based crowdfunding represents a relatively new and increasingly common conduit for acquiring financial resources. Rather than providing funds for the general development or growth of a new venture, crowdfunding enables entrepreneurs to garner funds in support of a specific purpose, which often centers on the creation or distribution of a new product (Belleflamme et al., 2014). Since entrepreneurs who utilize crowdfunding are often in the midst of developing products that are unfinished or unproven (Parhankangas and Ehrlich, 2014), prospective funders may be required to rely heavily upon perception-based elements of the pitch (e.g., creativity, passion) when determining whether, and to what extent, they will provide monetary support to the entrepreneur (Maxwell et al., 2011). Research examining perception-based elements of pitches has predominately focused on funders’ judgments regarding the merits of business related information that might be used to predict the odds of venture success (e.g., Chen et al., 2009). There is, however, some evidence to suggest that, by engendering positive affective reactions in prospective funders, entrepreneurs might also influence funding through emotional aspects of the product pitch (Baron et al., 2006).

New products often represent the focal point in entrepreneurs’ crowdfunding pitches. Although a number of perception-based elements may be considered, one that has been consistently found to differentiate successful new products from failures is product creativity (Cooper and Kleinschmidt, 1987). Creativity is highly valued across cultures (Peterson and Seligman, 2004) and is considered elemental to entrepreneurship (Schumpeter, 1947; Ward, 2004). For these reasons, creative products (i.e., those that are deemed to be both novel and meaningful; Andrews and Smith, 1996) have the potential to elicit positive affective reactions in those who view them (Algoe and Haidt, 2009; Baron, 2008). Moreover, the extent of creative products’ affect-inducing potential may be influenced by the entrepreneur delivering the pitch. Indeed, individuals are often unable to partition out the affective reactions they have to new product pitches from the reaction they have to the actual products (Cialdini, 2016). Despite this relationship, research has generally focused on how funders’ judgements and affective reactions are independently influenced by their perceptions of the entrepreneur(s) (e.g., Baron et al., 2006; Chen et al., 2009). Thus, relatively little is known with regard to (1) how funders’ perceptions of a product’s creativity may influence their resource allocation decisions (at least in part) by engendering positive affective reactions; and (2) how funders’ affective reactions to product creativity are influenced by perceptions of the entrepreneur(s) delivering the pitches.

To answer these research questions, we integrate affective events theory [AET] (Weiss and Cropanzano, 1996) with research findings regarding the importance of funders’ perceptions about elements of observed product pitches (Maxwell et al., 2011; Mitteness et al., 2012), and the alignment in expectations of both products and their presenters (Till and Busler, 2000) to develop an indirect effects model. More specifically, our model examines the relationship between a pitched product’s perceived level of creativity, funders’ positive affective reactions to that perceived creativity, and, ultimately, their decision to provide capital in
Complementing traditional forms of funding (e.g., banks, venture capital, angel investment, and friends and family members), crowdfunding provides a relatively new and increasingly important outlet for capital acquisition—one that can serve as a ‘bridge’ for accessing other more traditional forms of financing. For example, after raising almost $2 million in seed funding to develop an initial prototype, the venture known as Formlabs was able to acquire an additional $3 million through the crowdfunding platform Kickstarter. Crowdfunding enabled the venture to bring their 3D printer to market, and also contributed to their ability to acquire $19 million in venture capital the following year (Lomas, 2013). Even though the majority of ventures that employ crowdfunding receive only a few thousand dollars, the wide-reaching impact of the conduit continues to increase. Indeed, a recent report by the World Bank and CrowdSource.org states that crowdfunding will generate more than $300 billion in funding transactions by 2025 (EquityNet, 2014). Moreover, the number of crowdfunding platforms, as well as the level of funding activity they provide, has grown at rates of 200% to 500% per year, respectively (EquityNet, 2014).

Crowdfunding begins with the production of a ‘crowdfunding pitch’ that consists of information made publicly available by entrepreneurs to prospective funders through an online platform. The crowdfunding pitch consists of information such as a general synopsis of the product or service for which funding is being sought, the background of the management team, and the funding-reward structure. This information is then overlaid into a ‘virtual-funding page’ within the online crowdfunding platform, which generally consists of both digital video and written text mediums used to convey the pitch. Unlike traditional forms of funding, which often provide capital for ‘general’ purposes, crowdfunding is generally sought for a specific purpose. For example, Kammok utilized Kickstarter to ‘test the waters’ surrounding its innovative camping hammock, received tremendous support from funders, and has since grown its brand within the outdoor equipment industry (Kammok, 2013). Similarly, after being turned away by several venture capitalists, Pebble Technology acquired funds through Kickstarter to support production of the Pebble smartwatch (Svensson, 2012) and, more recently, its newer version Pebble Time smartwatch (Taylor, 2015).

Given that crowdfunding has grown to include a variety of forms, it is important to highlight a few distinctions with regard to our particular focus, the rewards-based model. In recent years, both equity-based crowdfunding and donation-based crowdfunding have grown in popularity. While equity-based crowdfunding closely mirrors traditional investment contexts, such that individuals provide capital in exchange for the expectation of future financial rewards (e.g., Ahlers et al., 2015), individuals in donation-based crowdfunding do so for nothing tangible in return (e.g., Allison et al., 2015). Alternatively, in rewards-based crowdfunding, individual funders generally provide entrepreneurs with financial capital in exchange for some type of reward (e.g., a special edition product), although the option sometimes also exists for individuals to provide funds in exchange for nothing other than the satisfaction of helping entrepreneurs further their cause. Reflecting this reward structure, recent studies suggest that funders may be motivated by a number of heterogeneous factors, such as the simple desire to obtain a novel product, the desire to support the entrepreneur’s dream, or even the desire to become part of the larger creative community (Gerber et al., 2012; Lin et al., 2014; Ordanini et al., 2011).

Similar to traditional investment contexts, resource providers in equity-based crowdfunding typically consist of due diligence experts (e.g., Ahlers et al., 2015). Alternatively, in both rewards-based crowdfunding and donation-based crowdfunding, resource providers typically consist of laypersons with little to no formal investment experience (e.g., Allison et al., 2015; Lin et al., 2014).
Indeed, the tremendous growth experienced by the rewards-based crowdfunding industry has been made possible, at least in part, by a steady influx of new, inexperienced funders. For example, while roughly 11.4 million individuals have provided capital through the crowdfunding platform Kickstarter since 2009, only about 31% are repeat funders (Kickstarter, 2016). Extant research suggests that while experienced individuals tend to seek out and assess information in a systematic way, more inexperienced individuals tend to make emotion-based evaluations that require little to no expertise or technical knowledge (Yang et al., 2013). This is a particularly important point with respect to the current research, as it suggests that typical crowdfunding campaign funders may rely heavily upon perception-based indicators of value, such as their impressions of product creativity or entrepreneurs’ levels of displayed passion, in making their funding decisions.

4. Affective events theory

Affective events theory (AET) provides a framework for predicting how certain types of events may engender affective reactions in individuals. Affective reactions, in turn, may influence individuals’ attitudes and actions (Hmieleski et al., 2012; Weiss and Cropanzano, 1996). Even though most individuals have a natural predisposition to, on average, experience certain levels of affect (Cropanzano et al., 1993), they often encounter events that interfere with such predisposed patterns and, in turn, act as external influences on one’s situational affective state (Pirola-Merlo et al., 2002). For example, meeting an attractive person (Baron et al., 2006), viewing a presentation by a charismatic speaker (Newcombe and Ashkanasy, 2002), and achieving a major career milestone (Baron, 2008) each represent an external event that may trigger positive affective reactions in the individuals who experience them. Such affective reactions, in turn, partly shape the nature of individuals’ behavioral responses to the given event (Forgas, 1998a).

The type of affective reaction (i.e., positive or negative) induced by an event is contingent on how the event in question is appraised (Gaddis et al., 2004; Weiss and Cropanzano, 1996). Individuals appraise affective events by the personal relevance of the event or its importance on some valued dimension (Pirola-Merlo et al., 2002). Thus, events leading to broader societal benefits or those that might greatly enhance one’s personal well-being are more likely to engender positive affective reactions, whereas events that harm or otherwise detract from an individual or the broader society are more likely to engender negative affective reactions. In traditional funding contexts, entrepreneurs’ funding pitches may be appraised on the basis of investors’ potential to enjoy financial rewards versus having to absorb potentially significant losses. Alternatively, given the lack of economic incentives for most persons who choose to support crowdfunding campaigns, funding pitches are typically based on personal emotional appeals and creative products that seek to evoke positive affective reactions and elicit support from potential funders.

AET suggests that affective reactions may directly result in emotion-driven behavior, such as biased decision-making (Isen and Baron, 1991; Weiss and Cropanzano, 1996). Indeed, when individuals experience positive affect, they tend to perceive the world around them in a more positive light (Forgas, 1995, 1998b). As such, positive affect may increase the likelihood that individuals will perceive other people (Forgas and Bower, 1987), or potentially even products (Isen et al., 1978), as favorable. Thus, given the ability to influence one’s perceptions, positive affect also represents an important factor in determining tangible outcomes. For example, when individuals experience a positive affective state, they may become more likely to cooperate (Dimotakis et al., 2012), to perform tasks effectively (Gaddis et al., 2004), and to take action (Baron, 2008).

In addition to behaviors induced by individuals’ affective reactions to events (i.e., behaviors based on their affective reactions), AET asserts that individuals may also form cognitive judgments that can influence their behaviors following events (Weiss and Cropanzano, 1996). When referring to judgments specifically, we refer to individuals’ merit-based assessments of a particular event (Wegge et al., 2006). For example, rather than only leading to affective reactions among investors, entrepreneurs’ visual expressions of internal passion may lead investors to provide capital due to judgments that passion is associated with venture success via qualities such as perseverance or creativity (e.g., Chen et al., 2009).

In the following sections, we draw from AET to develop a model in which the degree of product creativity demonstrated through entrepreneurs’ pitches is argued to generate positive affective reactions as well as overall merit-based judgments in potential funders who view the pitches, and subsequently influence their funding decisions. We take product creativity as the focal independent variable in our conceptual model given that creativity is valued across contexts (Pirola-Merlo et al., 2002; Schumpeter, 1947) and funders often seek out some form of product-based reward. Moreover, given that entrepreneurs are

![Fig. 1. Moderated mediation model for examining funders’ positive affective reactions to entrepreneurs’ crowdfunding pitches.](image)
responsible for pitching the product and can be passionate about their products and ventures overall (Smilor, 1997), we further hypothesize that perceived entrepreneurial passion will moderate the degree to which perceived product creativity generates positive affective reactions in funders. Specifically, funders’ perceptions of the product and the entrepreneur are expected to jointly influence resource allocation decisions. Our full conceptual model is depicted in Fig. 1.

5. Hypothesis development

5.1. Product creativity and crowdfunding performance

When evaluating funding proposals, particularly during early-stage screening, resource providers may place greater importance on the features of the product (or opportunity) as opposed to the qualities of the entrepreneur (c.f., Mitteness et al., 2012). Early-stage ventures are typically based on a single or very small number of products. Moreover, such products are often unfinished or unproven (Parhankangas and Ehrlich, 2014). For this reason, objective evidence of quality or potential for market success is often lacking and resource providers must instead rely more heavily upon their subjective impressions when making investment decisions (Maxwell et al., 2011; Maxwell and Lévesque, 2014).

Resource providers may look to a variety of different sources for information in forming judgments, yet product creativity is the one perception-based consideration that has been found to consistently differentiate new product successes from failures. This is because new product failures are often ‘me too products’ and do not provide clear value-added advantages over existing offerings (Cooper and Kleinschmidt, 1987). Products that are considered creative must be judged as being both novel and meaningful relative to existing attributes or practices that are associated with similar types of output (Andrews and Smith, 1996; Gardner, 1993; Hennessey and Amabile, 1988). Novelty refers to the degree to which the offering differs from existing outputs (i.e., the status quo), whereas meaningfulness refers to the extent to which the offering is perceived to generate value that goes above and beyond existing alternatives. Accordingly, we define product creativity as the extent to which a product represents a meaningful, value-creating advancement as compared to existing market offerings in the product category (Andrews and Smith, 1996).

In the context of crowdfunding, entrepreneurs typically seek funds to support a single product that, in turn, serves as the focal point in the funding pitch (e.g., Mollick, 2014). Moreover, funders are typically provided the option of receiving various tangible rewards in exchange for their capital, with the pitched product often being one of them. The introduction of creative products often represents a key hurdle on the road to broader acceptance and development of competitive advantage (Ward, 2004). Since failed products often lack creativity (Cooper and Kleinschmidt, 1987), prospective funders may judge a product’s level of creativity as an indicator of potential market performance (Szymanski et al., 2007), or the entrepreneur’s potential for offering other creative products in the future (Keller, 2012). Taken together, we hypothesize the following:

**Hypothesis 1.** In the crowdfunding context, product creativity will be positively related to crowdfunding performance.

5.2. Product creativity and positive affective reactions

Creative new products have the potential to elicit affective reactions within individuals who encounter them (Baron, 2008). AET posits that a positive affective reaction will typically be elicited from an event (i.e., such as a crowdfunding pitch) when individuals appraise the event as being personally relevant or important on some valued dimension (Pirola-Merlo et al., 2002).

Moreover, creativity is widely valued in society as the foundation for improving overall quality of life (Schumpeter, 1947). Consistent with this point, creativity has been found to be one of twenty-four basic virtues that are valued across all major countries and cultures; and individuals tend to experience positive emotion when observing creative performances or creations (Peterson and Seligman, 2004). In general, creative acts are examples of peak performance (Csikszentmihalyi, 1996) and are known to elevate observers’ positive emotion through self-transcendence (Algoe and Haidt, 2009).

Crowdfunding platforms, which act as intermediaries between entrepreneurs and funders, commonly espouse creativity as a basic value to be promoted. This value is made particularly salient through their mission statements, which often refer to the desire to support creative ideas and ventures (e.g., Kickstarter’s mission is to “help bring creative projects to life” [Kickstarter, 2015], and Indiegogo’s mission is to “empower everyone to change the world one idea at a time” [Indiegogo, 2014]). Such platform-based norms of valuing creativity may heighten the likelihood that exposure to a creative product in a crowdfunding pitch will generate positive affective reactions in potential funders. Thus, we hypothesize the following:

**Hypothesis 2.** In the crowdfunding context, perceived product creativity will be positively related to the prospective funder’s level of experienced positive affect.

---

1 In a sample of roughly 380 ventures drawn from Kickstarter, it was found that roughly 99% of ventures offered tangible rewards, while roughly 90% of funders chose to receive a tangible reward. To explore the robustness of these findings, a series of t-tests for mean differences were performed on a broader random sample of over 20,000 observations, also taken from the Kickstarter platform. Of the variables examined, none exhibited significant mean differences, suggesting the smaller sample was statistically indistinguishable from the larger population.
5.3. Positive affective reactions and the decision to provide funding

AET states that positive affective reactions may influence subsequent behavior (Weiss and Cropanzano, 1996). Moreover, research findings suggest that a positive affective state broadly generates desirable and/or favorable responses (Pham et al., 2001; Pham, 2007). Indeed, when individuals experience a positive affective state, they are more likely to focus on positive information when forming impressions (Sinclair, 1988). As a result, persons experiencing positive affect tend to perceive consumer products favorably (Isen et al., 1978), view their occupation in a positive light (Brief and Weiss, 2002), and perceive other people favorably (Forgas and Bower, 1987). Moreover, positive affect may also influence impression formation to the extent that individuals use affective reactions as proxies for value (Pham, 2004). For example, resource providers may be more likely to view products or business plans which ‘feel’ exciting as more desirable than ones which ‘feel’ dull (MacMillan et al., 1986).

In addition to its propensity to increase the likelihood that individuals will view events favorably, positive affect may also enhance the likelihood that individuals will take action—particularly with respect to the target that engendered the positive affective reaction (Baron, 2008). For example, prior research findings have indicated that positive affect may increase the likelihood that successful outcomes will occur in economic negotiations due to an enhanced willingness to cooperate with the other party (Dimotakis et al., 2012) and can facilitate the provision of support among individuals (Jones and George, 1998). In the crowdfunding context, prospective funders view entrepreneurs’ funding pitches that are based around a specific product, and as previously suggested, funders are likely to have positive affective reactions to products that they perceive to be creative. To that end, we expect that this positive affective reaction might translate into a willingness to provide funding to the venture in question. We therefore hypothesize the following:

**Hypothesis 3.** In the crowdfunding context, prospective funders’ experienced positive affective reactions will be positively related to crowdfunding performance.

5.4. The indirect relationship of product creativity with funding performance

Based on the findings of prior research concerning investor and consumer perceptions (Maxwell et al., 2011; Szymanski et al., 2007), we have argued that the extent to which individuals perceive an entrepreneur’s product as creative is positively related to crowdfunding performance (H1). Such relationships are, however, rarely so simple. Reflecting this point, we have drawn from AET to argue that exposure to events capable of eliciting positive affective reactions may increase the likelihood that individuals will comply with requested behaviors. Specifically, we have proposed that the extent to which funders perceive entrepreneurs’ products to be creative is positively related to the extent to which they will experience a positive affective reaction (H2). Building on this logic, we have further proposed that such a positive affective reaction will increase the likelihood that funders will comply with the entrepreneurs’ requests for funding (H3). Collectively, this pattern of relationships implies an indirect relationship between the perceived creativity of entrepreneurs’ products with crowdfunding performance that is mediated via funders’ positive affective reactions. However, given the proposed direct effect of product creativity of funding performance (H1), we expect a partial mediation to occur. Formally, we hypothesize the following:

**Hypothesis 4.** In the crowdfunding context, the positive relationship between perceived product creativity and crowdfunding performance is partially mediated by the prospective funder’s level of experienced positive affect.

5.5. The moderating role of perceived entrepreneurial passion

New products represent the focal point in the funding pitch; however, one must consider that it is the entrepreneur who is responsible for the creation, delivery, and communication of both the pitch and the product. Given the interconnected nature of entrepreneurs and their products, the way in which potential resource providers view new products may be influenced by their perceptions of the entrepreneurs (Grégoire et al., 2008; Mitteness et al., 2012). As Mitteness et al. (2012) have noted, just as a strong race horse needs an effective jockey to guide and motivate the horse to victory, ventures need effective entrepreneurs to pitch the concept and garner funding. Indeed, individuals are often unable to differentiate between the reactions they have to new product pitches from their reaction to the products themselves (Cialdini, 2016). For example, Baron et al. (2006) found that prospective resource providers are more likely to rate new products favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs. As a second example, Chen et al. (2009) found that resource providers are more likely to view ideas favorably when pitched by physically attractive entrepreneurs.
by other people (Hatfield et al., 1994). The existence of such a contagion effect suggests that funders may attribute the positive affective reaction (i.e., caused by their perception of an entrepreneur’s level of passion) to the product being pitched (Forgas, 1995, 1998b), and in turn, experience increased positive feelings towards the product (Barger and Grandey, 2006; Barsade, 2002). For example, in advertising, the presence of an emotionally expressive presenter has been found to increase viewers’ liking of the focal product (Howard and Gengler, 2001). Similarly, in service environments, positive emotional displays by employees have been found to increase customers’ overall service quality evaluations (Pugh, 2001).

While entrepreneurs’ displays of passion may increase funders’ perceptions of products being pitched in a variety of contexts, boundary conditions may exist. Specifically, research in the area of marketing suggests that it is important for the expectations of the presenters (i.e., the entrepreneur) to align with the expectations of the products being pitched (e.g., Kamins, 1989). For example, using an experimental design, Till and Busler (2000) found an athlete to be the most effective endorser when pitching a new energy bar, particularly with regards to consumer attitude towards the new product. Similar to product creativity (Schumpeter, 1947; Ward, 2004), the concept of passion is associated with entrepreneurship. Indeed, while athletes are typically viewed as images of health and vigor, the prototypical entrepreneur is often viewed as passionate (Smilor, 1997). This suggests that, while entrepreneurs’ passion may increase positive affective reactions among potential funders due to emotional contagion, these funders will experience an even greater positive affective reaction when creative products are pitched by more passionate entrepreneurs.

Thus based on the mechanisms of emotional contagion and the alignment of expectations of the entrepreneurs and the products being pitched, we expect entrepreneurial passion to strengthen the indirect effect of product creativity on crowdfunding performance. We therefore offer our final hypothesis as follows:

**Hypothesis 5.** The indirect effect of perceived product creativity on crowdfunding performance will be larger when prospective funders perceive entrepreneurs as exhibiting higher levels of entrepreneurial passion.

### 6. Methods

#### 6.1. Participants and procedure

The study’s participants consisted of 102 students (63 male and 39 female) who were enrolled at two large public universities in the United States (94 undergraduate and 8 graduate). On average, the participants were 22.6 years old and had 4 years of formal work experience. This age range closely mirrors the results of a 2012 survey conducted by the American Dream Composite Index, which found that the average individual providing funds through crowdfunding platforms is between 24 and 35 years of age. Additionally, the survey’s results indicated that participation rates decrease with age, such that individuals over 45 years old are significantly less likely to participate as funders (Fundable, 2014). Funders are not only typically younger than traditional investors but also much less experienced. Indeed, according to Kickstarter, roughly 69% of all funders are first time backers, meaning that only 31% have provided capital to more than one venture (Kickstarter, 2016). Similarly, of the individuals in our sample, only 7.8% had previously provided financial capital through a crowdfunding platform, and 25% had prior investment experience through other conduits. Taken together, these figures highlight the extent to which our sample is representative of the broader crowdfunding population both in terms of demographic composition and level of prior funding experience.

Following similar experimental studies (e.g., Elpers et al., 2003; Elpers et al., 2004), we employed stimuli taken directly from the domain of interest. The stimuli consisted of ten different entrepreneurial funding pitches drawn directly from the U.S.-based crowdfunding platform Kickstarter. Given that actual funding pitches were utilized, differences existed in areas such as entrepreneurs’ sex (i.e., 2 startups were led by female entrepreneurs), entrepreneur ethnicity (i.e., 7 lead entrepreneurs were identified as Caucasian), and platform-based funding success (i.e., 2 ventures failed to meet or exceed their funding goal). Kickstarter has been noted as one of the world’s largest rewards-based crowdfunding platforms, both in terms of entrepreneur utilization and dollars pledged (Mance, 2014) and, as such, represents a relevant setting for studying crowdfunding outcomes. In order to maintain consistency across the stimuli and control for the general diversity that exists among funding pitches on the Kickstarter platform, we selected pitches on the basis of several factors. Specifically, we selected 10 funding pitches which met the following criteria: (1) funds were sought in support of a single, tangible, technology-based product; (2) the pitch was presented by an individual entrepreneur (other team members only referenced by the lead entrepreneur or playing a supporting role in the pitch); and (3) the pitch was communicated using both digital video (Mean = 2.99 min; SD = 1.28) and written narrative (Mean = 737 words; SD = 218.6). Furthermore, to avoid potential response biases stemming from factors related to social influence (Leibenstein, 1950) or in-platform performance, all details pertaining to social networking outcomes (i.e., number of times the page had been liked/shared on Facebook or Twitter) and actual funding outcomes (i.e., the number of funders that provided capital and the level of funds received) were removed prior to the beginning of the study.

The study was conducted in a controlled-access computer lab at each university. In order to avoid subject fatigue and reduce the possibility of introducing bias into the dependent variables, the study was divided into two distinct parts, with a one-week lag between each (i.e., t₁ and t₂). To reduce the possibility of biases stemming from order effects, respondents viewed and evaluated each pitch in one of four randomly determined order sets (Elpers et al., 2004). Within each of these sets, the individual order of the stimuli was also randomized. To achieve randomization of both the participant set assignment and the stimulus order within each set, a random number generator was utilized. Prior to beginning the study, all participants were assured confidentiality of their responses and informed that the data being collected was only for research
purposes. In return for their participation, subjects were provided extra credit and entered into a drawing for a new tablet computer.

Upon arrival at the computer lab during $t_1$, each participant was seated at their own computer and provided with a pair of headphones. The participants were then briefed, during which time the researcher made two specific requests regarding information sharing and seeking. Specifically, it was requested that participants not discuss the activity with other participants or with outside friends or family until both segments of the study had been completed (i.e., $t_1$ and $t_2$). Moreover, the researcher also requested that, for the same time period, participants refrain from seeking outside information regarding the ventures used in the study (e.g., via the internet). After completing the briefing, participants were provided 10 min to view and respond to a practice funding pitch. The purpose of providing the participants with an initial practice pitch was to promote fluency in terms of viewing the stimuli and utilizing the Qualtrics platform (Elpers et al., 2003). Qualtrics, which is a computer-based survey platform, enabled participants to record their responses after viewing each funding pitch. This procedure was used for the assessment of measures related to all focal variables. Importantly, students were informed prior to starting the process that the purpose of the study was to understand what informs their preferences for crowdfunding pitches, and because the research sought to understand their idiosyncratic differences, respondents should know that there are no right or wrong answers.

During the initial portion of the study (i.e., $t_1$), participants were provided with 10 min to view each funding pitch. Participants were required to remain on the funding pitch for the entire duration, as the Qualtrics questionnaire did not become available until the ten-minute segment’s completion. Ten minutes of viewing time for each pitch was deemed to be appropriate through an initial pilot conducted by two of the study’s authors and three research assistants. While all ten pitches were drawn directly from the Kickstarter platform, it was assumed that initial exposure to each stimulus occurred during the study, given that no participant self-identified as having previously seen them. After viewing the stimulus pitch, participants were provided with the password needed to unlock Qualtrics, where they then responded to a series of measures regarding product creativity, entrepreneurial passion, and their own personal positive affective reaction to the pitch. This procedure was repeated for all ten stimuli during $t_1$.

Approximately one week after completing $t_1$, participants returned to the controlled access computer lab to complete the second portion of the study (i.e., $t_2$). Upon arrival, participants were again seated at their own computer, provided a pair of headphones, and then briefed by the researcher. Afterwards, they were given 30 min to re-familiarize themselves with the ten stimuli by viewing the pitches. During this time, participants were provided a pen and a clean sheet of paper to utilize for taking notes during the re-familiarization period. At the culmination of the 30 min, the participants were asked to “act as actual funders...as if they were making a decision to provide capital to one or more of the ventures in the sample”. The researcher then provided respondents with the password needed to unlock the Qualtrics platform where they were asked to provide information for the study’s dependent measures: predicted success and investment.

6.2. Measures

6.2.1. Independent variable: product creativity

Measured at $t_1$, product creativity was measured using Andrews and Smith’s (1996) 10-item scale of creativity ($\alpha = 0.95$). Participants were instructed to evaluate, on a seven-point semantic differential scale, each entrepreneur’s product using a seven-point semantic differential scale based on the following statement: “compared to possible competitors, the entrepreneur’s product is”. Example items include “commonplace or original” and “fresh or routine”. Responses were averaged to form an overall measure of product creativity.

6.2.2. Mediator variable: funders’ positive affective reactions

Measured at $t_1$, funders’ positive affective reactions were measured using 10 items ($\alpha = 0.95$) related to positive affect from the PANAS (Watson et al., 1988). Given that our focus was on affect experienced as a result of viewing each individual pitch, we provided participants with the instruction (Watson et al., 1988): “after viewing the pitch, to what extent do you feel this way?”. Sample items include emotions such as “excited”, “enthusiastic”, and “interested”. Using a seven-point scale, which ranged from 1 (not at all) to 7 (very much), participants were asked to respond to each of the 10 items. Responses were averaged to form an overall measure of funder positive affective reactions.

6.2.3. Moderator variable: perceived entrepreneurial passion

Measured at $t_1$, perceived entrepreneurial passion was measured using Chen et al.’s (2009) six-item scale of perceived entrepreneurial passion ($\alpha = 0.96$). For this measure, participants were instructed to focus on the entrepreneur and respond to each of the six items using a seven-point scale, which ranged from 1 (strongly disagree) to 7 (strongly agree). Example statements include “the entrepreneur had energetic body movements” and “the entrepreneur talked with varied tone and pitch”. Responses were averaged to form an overall measure of perceived entrepreneurial passion.

6.2.4. Dependent variables: investment and predicted success

While the actual Kickstarter funding outcome for each pitch in our sample was known by the authors, it did not represent an appropriate measure for the current study. In particular, objective data regarding funding performance on the Kickstarter platform

---

2 The measure of passion that we have used is consistent with what Chen et al. (2009) refer to as affective passion in the theoretical development of their work and later simply refer to as passion in the empirical portion of their research.
is at the aggregate level (i.e., the total amount of money raised for the product), whereas the focus of the current study is on performance ratings at the level of the individual funding decision (i.e., each individual funding decision made by prospective funders). In order to overcome this limitation, and better align our theoretical and empirical models, we utilized dependent measures that were scored by the study’s participants.

Regardless of funding context, perhaps the most important overarching indicator of performance is the acquisition of financial capital. As demonstrated in the strategic management literature, it is, nonetheless, important to consider the multidimensional nature of performance (Schendel and Patton, 1978; Venkataraman and Ramanujam, 1986). We follow this tradition by utilizing two measures of funding performance: investment and predicted success. Data for each of these variables were collected during t2.

To begin, we operationalized investment as funders’ capital allocation decisions in dollars. Specifically, participants were provided with a fictitious $1000 USD (framed as their own money) and instructed to distribute the funds in an unstructured manner among the ten stimuli pitches (e.g., $1000 to one venture, and $500 to two). Participants distributed the funds on the basis of the following statement: “Act as real funders and distribute your money among the ten ventures in any way that you see fit”. Therefore, this variable was operationalized as a compositional measure (Coenders et al., 2011; Mobley and Meglino, 1977). The process undertaken to transform the resulting compositional data prior to analysis is discussed below in the section “Statistical Procedures”.

Next, given that funders typically provide capital in exchange for extrinsic rewards (often the product being pitched), the extent to which one expects the venture (and thus the product) to be successful in the open market may be important as well. Thus, to operationalize predicted success, participants were asked to respond to the following statement: “To what extent do you believe the entrepreneur’s concept will succeed or fail in the open market”. The responses were recorded on a 7-point scale with 1 meaning ‘the venture will definitely fail’ and 7 meaning ‘the venture will definitely succeed’.

6.2.5. Control variables

We drew upon both work in traditional investment settings (e.g., Chen et al., 2009) and crowdfunding (Mollick, 2014) to develop control variables for the current study. First, to guard against the possibility of homophily (Harrison and Mason, 2007), we controlled for: (1) entrepreneur sex and entrepreneur ethnicity. Entrepreneur sex was controlled with a dummy variable coded ‘1’ for ventures led by a male entrepreneur and coded ‘0’ for ventures led by a female entrepreneur. Similarly, entrepreneur ethnicity was controlled through a dummy variable, coded ‘1’ for those who identified as Caucasian and otherwise coded ‘0’.

To account for any differences across the funding pitches used in the study, we controlled for (1) video length (duration in minutes), (2) narrative length (word count), and (3) funding goal (dollar amount). The resulting variable for funding goal was found to have a positive skew of 2.27. As such, the natural log of funding goal was taken (skewness = −0.83) and used in the final analysis.

Finally, to account for entrepreneurs’ human capital, we controlled for entrepreneurs’ education, experience, and preparedness. Education was measured using a dummy variable coded ‘1’ for lead entrepreneurs who possessed a master’s degree or above and otherwise coded ‘0’ otherwise to discern a level of specialization in knowledge. Experience was assessed using a dummy variable coded ‘1’ for lead entrepreneurs with functional experience in the same or similar context of the current venture and otherwise coded ‘0’ to discern whether the entrepreneur might have prior experience that can be leveraged in the current venture. Finally, preparedness was measured using the five-item (α = 0.918) preparedness scale developed by Chen et al. (2009) to control for differences in entrepreneurs’ level of cognitive engagement with their ventures and effort put into the funding pitch. Participants were instructed to focus on the entrepreneur and respond to each of the five items using a seven-point scale, which ranged from 1 (strongly disagree) to 7 (strongly agree). Sample items include “the entrepreneur was thoughtful and in depth” and “the entrepreneur cited facts to support his/her arguments”. Responses for each item were averaged to form an overall measure of preparedness.

6.3. Statistical procedures

6.3.1. Data transformation

The dependent variable investment is comprised of multiplicative ipsative data (Chan, 2003), otherwise referred to as compositional data (Aitchison, 1986; Coenders et al., 2011), because the total of all funding choices for each participant sums to a constant of 100% of funds available (i.e., $1000). Compositional data present a number of analytical challenges, such as having a highly non-normal distribution and being range-restricted (see Aitchison, 1986 for review). To overcome these challenges, we used the R statistical package and followed Aitchison’s (1986) recommendation to perform an additive log-ratio transformation (ALR). ALR is computed as the log-ratio of each decision component divided by the last decision component (Coenders et al., 2011). The major limitation of this transformation for our data analysis is that there is one fewer investment choice than included in the original data because the last of ten investment decisions for each participant is used as the denominator when dividing each investment choice before taking the log-ratio. In compositional data the absolute size of each component (i.e., investment decision) lacks meaning and it is only the relative size of each component that is meaningful.

Prior to transforming the data, we needed to first consider the issue of zero components where participants decided to allocate $0 to a particular venture (38% of cases). Given the structure of our data, Coenders et al. (2011) recommend replacing each zero with an amount expected to be nearly undetectable. In the case of the current study, the lowest non-zero level that a participant could allocate to a venture was $1. Martín-Fernández et al. (2003) suggest replacing each zero with:

\[ k_{0,\text{idm}} \text{ with } 0 < k < 1 \]

where \( k_{0,\text{idm}} \) is the smallest detectable proportion and \( k \) is suggested to be 0.65 (Martín-Fernández et al., 2003). Thus, we replaced
each zero with 0.65 (1 * 0.65) before applying the ALR transformation. Additionally, prior to performing the ALR transformation, the sum of quantities replacing zeroes were subtracted proportionally from the non-zero values (Martín-Fernández et al., 2003).

6.3.2. Analyses

Multilevel modeling is a widely used statistical technique for analyzing nested data such as when students are clustered in schools (Enders and Tofghi, 2007), employees are nested within jobs (Taylor et al., 2008), and employees are nested within teams (Kim et al., 2013). The data used in the current study is nested within individuals making funding decisions (Level 2) based on (perceived and actual) crowdfunding pitch characteristics (Level 1). In these cases, assumptions of observation independence may not hold, leading to downwardly biased standard errors, smaller estimated p values, and increased Type 1 error rates (Hayes, 2006; Preacher et al., 2010).

According to Heck et al. (2010, p. 6), “the first step in a multilevel analysis is partitioning the variance in an outcome variable into its within- and between-group components. If it turns out that there is little or no variation (perhaps less than 5%) in outcomes between groups, there would be no compelling need for conducting a multilevel analysis”. To measure the between groups variance we calculated the intra-class correlation (ICC) (Hayes, 2006) for positive affect and our two dependent variables. To begin, for positive affect, the ICC is calculated as 1.33 / (1.33 + 0.99) where 1.33 is the intercept and 0.99 is the estimated residual variance for the null model (Hayes, 2006). Our ICC calculation for positive affect is therefore 0.57, which suggests that 57% of positive affect is accounted for by differences between funders. This finding supports use of multilevel modeling techniques for this variable. Next, we calculated the ICC for investment as 3.86 / (3.86 + 6.95) resulting in an ICC of 0.36, meaning that 36% of investment results from funder differences and supports the use of multilevel modeling. Finally, the ICC for our predicted success variable was calculated as 0.12 / (0.12 + 3.35). This calculation results in an ICC of 0.03. While it is unclear as to how close to zero an ICC needs to be for confidence to be had in hypothesis tests and confidence intervals (Kreft and De Leeuw, 1998), multilevel modeling may still be useful when an ICC is near zero (Hayes, 2006). We therefore utilize multilevel modeling for our predicted success variable despite the low ICC.

6.3.3. Common method bias

Given that the study’s participants provided measures for all focal variables (i.e., the independent, mediator, moderator, and dependent variables), we conducted a series of tests to assess the extent to which our results may be influenced by common method bias. First, we conducted Harmon’s single-factor test (e.g., Aulakh and Genceturk, 2000; Podsakoff et al., 2003). The resulting un-rotated principle components factor analysis failed to yield a single factor accounting for the majority of the variance in the variables, and indicated five factors with eigenvalues greater than one. Importantly, these results suggest that common method variance does not represent a major threat to the integrity of our study.

Next, to assess the psychometric soundness of our measures and provide a more robust test of common method bias, we also performed a confirmatory factor analyses using AMOS 23.0. We compared models of increasing complexity (Gerbing and Anderson, 1988; Korsgaard and Roberson, 1995) and allowed latent variables to covary in two- and three-factor models (Kepes et al., 2009). Collectively, pairwise comparisons of the three models (Gerbing and Anderson, 1988), chi-square difference tests, and model fit indices indicated a better fit for the three-factor model. The single-factor model yielded the following fit statistics, which we compared to those of several two-factor models: $\chi^2 (df = 275) = 14,286.94, p < 0.000; CFI = 0.47; TLI = 0.43; NFI = 0.47; SRMR = 0.18$. Several two-factor models were compared and provided similar findings. For example, for entrepreneurial passion-positive affect (factor 1) and creativity (factor 2): $\chi^2 (df = 274) = 8534.47, p < 0.000; CFI = 0.69; TLI = 0.66; NFI = 0.68; and SRMR = 0.15$. Finally, for the hypothesized three-factor model $\chi^2 (df = 272) = 3149.01, p < 0.000; CFI = 0.89; TLI = 0.88; NFI = 0.88; SRMR = 0.07$; two-factor $\chi^2_{\text{difference}} (df = 2) = 5385.47, p < 0.000; single-factor $\chi^2_{\text{difference}} (df = 3) = 11,137.92, p < 0.000$. While the chi-square test for the three-factor model was significant, it exhibited factor loadings between 0.73 and 0.92, significant t-values for all items (p < 0.000) and acceptable fit (Hu and Bentler, 1999; Kline, 2011).

The correlations between the factors were as follows: creativity and positive affect ($r = 0.52$); creativity and passion ($r = 0.37$); positive affect and passion ($r = 0.40$). The squared phi-correlations between the latent variables were as follows: creativity and positive affect ($r = 0.27$); creativity and passion ($r = 0.13$); positive affect and passion ($r = 0.16$). Both the average variance extracted and the variance extracted for each factor is larger than the phi-correlation. As such, discriminant validity is supported. These findings, combined with the overall model fit statistics, chi-squared difference test, and statistically significant factor loadings, suggest that each scale is internally consistent and distinct from others in the model (Kepes et al., 2009; Kline, 2011). If common method bias represents a serious problem, a single-factor model should demonstrate similar fit to a more complex model (McFarlin and Sweeney, 1992). Instead, we find evidence for a three-factor model (i.e., funder positive affect; entrepreneurial passion; product creativity). While this procedure does not eliminate the threat of common method variance, it provides evidence that correlations between variables are not driven purely by method bias (Korsgaard and Roberson, 1995).

7. Results

Means, correlations, and standard deviations for the variables are presented in Table 1. Table 2a provides multilevel results for the study's two dependent measures: investment and predicted success, whereas Table 2b presents the multilevel results for

---

1 These results mirror those found when preparedness is included in the confirmatory factor analysis.
positive affect (as the dependent variable). The Sobel test for mediation relating to Hypothesis 4 is provided in Table 3. Finally, the conditional indirect and direct effects of perceived product creativity on crowdfunding performance (via funders’ positive affect) relating to Hypothesis 5 are found in Table 4, and the plotted interaction between perceived product creativity and perceived entrepreneurial passion is provided in Fig. 2.

Hypothesis 1 predicted that perceived product creativity would be positively related to crowdfunding performance. As can be seen in Table 2a, the coefficient for product creativity is both positive and statistically significant [(Model 3; Investment: $B = 0.69, p < 0.000$) (Model 6; Predicted success: $B = 0.62, p < 0.000$)], thus lending support for Hypothesis 1. Similarly, Hypothesis 2, which predicted a positive relationship between perceived product creativity and funders’ positive affect, also received support [(Table 2b; Model 3 $B = 0.34; p < 0.000$)].

Next, in Table 2a, we find a positive and statistically significant relationship between funders’ positive affective reactions and crowdfunding performance [(Model 3; Investment: $B = 0.23, p < 0.01$) (Model 6; Predicted success: $B = 0.05, p = 0.08$)]. Thus, Hypothesis 3 is supported.

Hypothesis 4 predicted that the positive relationship between perceived product creativity and crowdfunding performance (H1) is partially mediated by funders’ level of positive affect (H2 and H3). As can be seen in Table 3, the indirect effect of perceived product creativity on crowdfunding performance (via funders’ positive affect) is both positive and statistically significant for both dependent variables: [(Investment; $\text{coef} = 0.240; 95\% \text{ CI: 0.065 to 0.414}$) (Predicted success; $\text{coef} = 0.118; 95\% \text{ CI: 0.080 to 0.157}$)]. Thus, Hypothesis 4 is fully supported.

Finally, Hypothesis 5 predicted that the indirect relationship between perceived product creativity and crowdfunding performance (via funders’ level of positive affect) would be contingent upon the level of perceived entrepreneurial passion, such that the indirect effect will be larger when pitches are led by entrepreneurs who are perceived to be highly passionate, as compared to those perceived as less passionate. As shown in Table 2b, the interaction term ($\chi * M$) is both positive and statistically significant ($B = 0.04; p < 0.05$). The pattern of the interaction (shown in Fig. 2) suggests that funders’ positive affective reactions to perceived product creativity increase to a greater degree when the pitching entrepreneurs are perceived as more passionate (as compared to less passionate).

Taking a more nuanced look at this relationship, we follow the procedure outlined by Bauer et al. (2006) for assessing the statistical significance of conditional indirect effects. Table 4 provides the pattern of results related to the indirect effects of perceived product creativity on crowdfunding performance (via funders’ positive affective responses) at high ($M + 1 \text{ SD}$), Mean ($M$), and low ($M - 1 \text{ SD}$) levels of perceived entrepreneurial passion. For our investment model, the estimated indirect effect of perceived product creativity is statistically significant, and its magnitude becomes more positive as the value of the moderating variable increases in a positive direction: (1) Low passion levels ($M - 1 \text{ SD}$), indirect effect $= 0.11; 95\% \text{ CI from 0.02 to 0.20}$; (2) Mean passion levels ($M$), indirect effect $= 0.13; 95\% \text{ CI from 0.03 to 0.23}$; (3) High passion levels ($M + 1 \text{ SD}$), indirect effect $= 0.15; 95\% \text{ CI from 0.03 to 0.26}$. Similarly, for predicted success, the estimated indirect effect of product creativity is statistically significant, and the effect becomes more positive as the value of the moderator becomes more positive: (1) Low passion levels ($M - 1 \text{ SD}$), indirect effect $= 0.05; 95\% \text{ CI from 0.01 to 0.10}$; (2) Mean passion levels ($M$), indirect effect $= 0.06; 95\% \text{ CI from 0.01 to 0.11}$; (3) High passion levels ($M + 1 \text{ SD}$), indirect effect $= 0.07; 95\% \text{ CI from 0.02 to 0.13}$. Collectively, these findings provide full support for Hypothesis 5.

8. Discussion and conclusion

Our findings advance the crowdfunding and entrepreneurship literatures by contributing to the growing stream of research concerning how resource providers’ perceptions influence their ultimate capital allocation decisions, particularly when evaluating early- or nascent-stage ventures (e.g., Baron et al., 2006; Maxwell and Lévesque, 2014). Despite the centrality of creativity to entrepreneurship (Schumpeter, 1947; Ward, 2004), little, if any, research has explicitly focused on product creativity in the context of early-stage funding decisions.

Table 1
Descriptive statistics and variable correlations.

<table>
<thead>
<tr>
<th>Mean</th>
<th>SD</th>
<th>r</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ent. sex</td>
<td>0.80</td>
<td>0.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ent. ethnicity</td>
<td>0.70</td>
<td>0.46</td>
<td>0.22**</td>
<td>0.21**</td>
<td>-0.01</td>
<td>0.28**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fund goal (LOG)</td>
<td>9.56</td>
<td>1.13</td>
<td>-0.44**</td>
<td>-0.19**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Word count</td>
<td>737.70</td>
<td>218.64</td>
<td>-0.11**</td>
<td>-0.07</td>
<td>0.80**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Video length</td>
<td>2.99</td>
<td>1.28</td>
<td>0.13**</td>
<td>0.21**</td>
<td>-0.01</td>
<td>0.28**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ent. education</td>
<td>0.10</td>
<td>0.30</td>
<td>0.17**</td>
<td>0.22**</td>
<td>0.10**</td>
<td>0.07</td>
<td>-0.14**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Ent. experience</td>
<td>0.40</td>
<td>0.49</td>
<td>-0.10**</td>
<td>0.33</td>
<td>0.48**</td>
<td>0.30**</td>
<td>-0.18**</td>
<td>0.41**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Preparedness</td>
<td>4.74</td>
<td>1.53</td>
<td>-0.28**</td>
<td>0.10**</td>
<td>0.14**</td>
<td>0.08**</td>
<td>0.09**</td>
<td>0.09**</td>
<td>0.25**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Prod. creativity</td>
<td>4.23</td>
<td>1.46</td>
<td>-0.43**</td>
<td>0.07</td>
<td>0.34**</td>
<td>0.23**</td>
<td>0.13**</td>
<td>0.20**</td>
<td>0.33**</td>
<td>0.58**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Ent. passion</td>
<td>4.49</td>
<td>1.47</td>
<td>-0.22**</td>
<td>0.13**</td>
<td>-0.13**</td>
<td>-0.18**</td>
<td>0.04</td>
<td>-0.02</td>
<td>0.11**</td>
<td>0.62**</td>
<td>0.34**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Pos. affect</td>
<td>2.64</td>
<td>1.52</td>
<td>-0.29**</td>
<td>0.04</td>
<td>0.21**</td>
<td>0.13**</td>
<td>0.08**</td>
<td>0.09**</td>
<td>0.18**</td>
<td>0.49**</td>
<td>0.59**</td>
<td>0.39**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Investment</td>
<td>0.90</td>
<td>3.28</td>
<td>-0.25**</td>
<td>0.08</td>
<td>0.23**</td>
<td>0.12**</td>
<td>0.03</td>
<td>0.09**</td>
<td>0.19**</td>
<td>0.28**</td>
<td>0.42**</td>
<td>0.09**</td>
<td>0.32**</td>
<td></td>
</tr>
<tr>
<td>13. Pred. success</td>
<td>4.28</td>
<td>1.86</td>
<td>-0.33**</td>
<td>0.10**</td>
<td>0.33**</td>
<td>0.24**</td>
<td>0.03**</td>
<td>0.19**</td>
<td>0.26**</td>
<td>0.38**</td>
<td>0.59**</td>
<td>0.15**</td>
<td>0.42**</td>
<td>0.57**</td>
</tr>
</tbody>
</table>

$N = 1020.$

* $p < 0.05.$

** $p < 0.01.$
of resource acquisition. Through our examination of the relationships among product creativity, positive affect, and funding, we not only advance research concerning resource providers’ perceptions, but also contribute to growing evidence that resource providers are not necessarily driven by economic motivation (e.g., Baron et al., 2006; Lin et al., 2014). Moreover, our study also identifies boundary conditions for this effect by examining the interaction between funders’ perception of product creativity and their perceptions of entrepreneurial passion. In our view, these collective findings present an important divergence from what has been considered traditionally important with respect to theory and point to new avenues of research regarding how resource providers make decisions. Empirically, we advance understanding of compositional data transformation and use for entrepreneurship of resource acquisition.

In particular, we have drawn upon affective events theory (Weiss and Cropanzano, 1996; Gaddis et al., 2004) to explain how the decision to provide capital to entrepreneurs is influenced by funders’ perceptions of product creativity and their positive affective reactions to that creativity. After controlling for a number of entrepreneur- and pitch-related factors, we found that the relationship between perceived product creativity and crowdfunding performance is partially mediated by funders’ positive affective reactions. Additionally, our findings also suggest that the magnitude of this indirect effect is conditional on the level of perceived entrepreneurial passion, such that the effect is larger for funding pitches presented by entrepreneurs who are perceived as highly passionate. These findings extend beyond prior research, which has generally focused on perceptual elements of the entrepreneur, the direct effects of those elements, and how judgments guide decision-making.

8.1. Contributions to theory

The present research offers a novel theoretical perspective by highlighting perceived product creativity as a potential driver of funder decision-making via positive affect. Despite creativity being prototypical of entrepreneurship (Schumpeter, 1947), indicative of a product’s market potential (Cooper and Kleinschmidt, 1987; Szymanski et al., 2007), and theoretically capable of engendering positive affective reactions in viewers (Baron, 2008), little to no research has examined this relationship in entrepreneurial funding environments. Instead, studies in crowdfunding and traditional investment contexts alike have generally focused on perceptual elements tied to the entrepreneur and how funding decisions are determined via investors’ judgments (Chen et al., 2009; Martens et al., 2007). Moreover, while studies examining investors’ perceptions have generally focused on first-order effects (e.g.,
Baron et al., 2006), our study suggests that perceptual elements may interact to influence the ultimate funding decision. Therefore, our findings contribute to the literature by providing a more complex view of funder decision-making.

Past research examining the direct relationship between entrepreneurs' outwardly visible indicators of passion and funding performance has generally produced mixed results (Chen et al., 2009). The findings of the current study add further clarity to this body of research by demonstrating a significant moderating effect of perceived entrepreneurial passion on the indirect relationship between perceived product creativity and crowdfunding performance (via positive affect). Thus, by examining the mediating role of funders' positive affective reactions, we have further contributed to the literature by identifying a mechanism for when and how entrepreneurs' displayed passion may influence funding performance. Indeed, our results suggest that entrepreneurs' displayed passion can mobilize resources from funders who make affect-based decisions.

The findings of the current research also contribute broadly to the literature on AET. Prior research based on AET has generally focused on how workplace events shape the affective states of workers, subsequently influencing the satisfaction and performance of such persons (Hmieleski et al., 2012; Judge et al., 2006; Pirola-Merlo et al., 2002; Wegge et al., 2006). The current research extends the use of AET to examine how specific actions taken by organizational leaders (i.e., entrepreneurs making crowdfunding pitches) can act as events that shape the affective states of external stakeholders (i.e., funders) and subsequently influence their decision-making and behavior (i.e., the decision of whether to provide funding). Our results, in this respect, point toward the potential for future research to adopt AET frameworks in studies investigating how entrepreneurs' actions (or even the actions

Table 2b
Hierarchical linear model results.

<table>
<thead>
<tr>
<th>Funders' positive affect (M)</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$ (SE)</td>
<td>$B$ (SE)</td>
<td>$B$ (SE)</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ent. sex</td>
<td>$-0.34^{***}$</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>(0.09)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td></td>
</tr>
<tr>
<td>Ent. ethnicity</td>
<td>0.07 (0.10)</td>
<td>0.15 (0.08)</td>
<td>0.15 (0.08)</td>
</tr>
<tr>
<td>Fund. goal (LOG)</td>
<td>0.11 (0.06)</td>
<td>0.15** (0.05)</td>
<td>0.14** (0.05)</td>
</tr>
<tr>
<td>Word count</td>
<td>$-0.00$ (0.00)</td>
<td>$-0.00$ (0.00)</td>
<td>$-0.00$ (0.00)</td>
</tr>
<tr>
<td>Video length</td>
<td>0.04 (0.02)</td>
<td>0.14 (0.02)</td>
<td>0.14 (0.02)</td>
</tr>
<tr>
<td>Ent. education</td>
<td>0.30** (0.09)</td>
<td>0.11 (0.08)</td>
<td>0.11 (0.08)</td>
</tr>
<tr>
<td>Ent. experience</td>
<td>$-0.09$ (0.10)</td>
<td>$-0.31^{***}$ (0.08)</td>
<td>$-0.31^{***}$ (0.08)</td>
</tr>
<tr>
<td>Preparedness</td>
<td>0.37*** (0.04)</td>
<td>0.11*** (0.03)</td>
<td>0.11*** (0.03)</td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product creat. (X)</td>
<td>0.34*** (0.04)</td>
<td>0.34*** (0.04)</td>
<td>0.34*** (0.04)</td>
</tr>
<tr>
<td>Ent. passion (W)</td>
<td>0.14*** (0.03)</td>
<td>0.15*** (0.03)</td>
<td>0.15*** (0.03)</td>
</tr>
<tr>
<td><strong>Two-way interaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X × W</td>
<td>0.04* (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>−2 log-likelihood</td>
<td>2806.51</td>
<td>2523.13</td>
<td>2522.65</td>
</tr>
<tr>
<td>Difference in $\chi^2$</td>
<td></td>
<td>283.38***</td>
<td>0.48</td>
</tr>
<tr>
<td>N</td>
<td>1020</td>
<td>1020</td>
<td>1020</td>
</tr>
</tbody>
</table>

*p < 0.05.

**p < 0.01.

***p < 0.000.

Table 3
Sobel test of mediation.

<table>
<thead>
<tr>
<th>Indirect effect of X on Y via positive affect</th>
<th>$Z$</th>
<th>$P$</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>0.240</td>
<td>3.535</td>
<td>0.000</td>
</tr>
<tr>
<td>Predicted success</td>
<td>0.118</td>
<td>7.914</td>
<td>0.000</td>
</tr>
</tbody>
</table>
of leaders in large corporations) influence the affective states of other key stakeholders (e.g., suppliers, and customers), thus shaping relationship-based outcomes (e.g., Cardon, 2008).

8.2. Implications for practice

For practitioners, our study suggests that product creativity and passion exhibited by entrepreneurs might jointly strengthen entrepreneurs’ ability to receive funding from their pitches. Moreover, it highlights the importance of alignment of funders’ expectations in their perceptions of entrepreneurs as individuals and the products/services they pitch (Till and Busler, 2000). Unfortunately, some entrepreneurs may lack creativity and have difficulty being emotionally expressive due to factors such as general dispositional or personality constraints. Therefore, entrepreneurs might benefit from formal education, outreach programs, or perhaps even participation in social organizations that foster the development of creativity as well as communication and presentation skills. Additionally, entrepreneurs may also benefit from taking acting classes, given that some experts have suggested it may be possible to simply appear creative or highly passionate (Cardon et al., 2013; Gardner and Avolio, 1998).

8.3. Limitations and directions for future research

The present study has a number of limitations that should be noted. First, the setting for our study was artificial and the pitches used were drawn from a single crowdfunding platform. The funding pitches, although real in terms of their content and origin, were scrubbed of social indicators (e.g., Facebook ‘likes’) and were not viewed on the crowdfunding platform from which they were derived. Instead, the participants viewed each pitch through an interactive PDF document that mimicked the original webpage. Moreover, the participants did not actually provide funds to the ventures being evaluated, but instead provided fictitious dollars. Due to these points, the financial risk present in ‘real-world’ funding contexts was not present. Collectively, these factors may potentially limit the generalizability of our findings (e.g., Chen et al., 2009). Additional research is also needed to examine the impact of product creativity and positive affect on the decision-making of resource providers in more profit-driven contexts such as venture capital or angel investment.

Second, while data were collected at two points in time (t1 and t2), we did not measure the extent to which the study’s participants experienced the same level or type of affect at t2 as at t1. We assume the affective reactions experienced by participants at both t1 and t2 were the same and expect that they would react in a relatively similar manner (i.e., the overall level of affective reaction might be higher or lower, but the general pattern of reactions would remain the same). Similar to the artificial time lag in our study’s design, crowdfunding pitches typically extend over several weeks (e.g., thirty days). As such, scholars conducting future research on similar topics might consider exploring the extent to which individual funders’ viewing experiences (i.e., how much time they spend examining a pitch, over what period of time, whether funding is generally provided in the initial view of the pitch or later, and how often they return to a pitch) influence their decision to provide capital. If funders view pitches
over multiple periods, might they experience lower levels of positive affect (perhaps the product becomes less novel to that person) and, as a result, become less likely to provide capital?

Third, it is possible participants may have engaged in information seeking or sharing activities regarding the ventures utilized in the study. During both \( t_1 \) and \( t_2 \), the participants operated within a controlled environment that prevented both sharing information with other participants and seeking information from outside sources such as the internet. Although participants were instructed to refrain from such activities during the one-week lag between \( t_1 \) and \( t_2 \), it is possible that some failed to comply. Such information sharing and seeking may certainly influence the way in which a funding pitch is ultimately evaluated (e.g., via social influence), and likely occurs quite often in ‘real-life’ funding contexts. Future research utilizing a similar design might benefit from the collection of dependent measures at both \( t_1 \) and \( t_2 \) as a means to evaluate the presence of such external influence.

Next, we focused on only two perception-based elements of the funding pitch that were consistent with our use of AET: product creativity and entrepreneurial passion. Beyond the centrality of product creativity within crowdfunding, the focus on both creativity and passion was driven by the prototypical nature of each element within entrepreneurship at large (Schumpeter, 1947; Smilor, 1997). There may, however, be an array of other perception-based elements, particularly regarding the entrepreneur, that may influence funders’ positive affect and, ultimately, crowdfunding performance. For example, other studies have examined factors such as the extent to which entrepreneurs are perceived to be trustworthy (Maxwell and Lévesque, 2014), enthusiastic and honest (Mitteness et al., 2012), or even physically attractive (Baron et al., 2006). It may be quite fruitful for future research examining funder affect in the crowdfunding context to examine multiple entrepreneur, venture, and/or product-level characteristics.

With regard to the way in which resource providers respond to product creativity, future studies could investigate alternative first-stage relationships, as compared to those in the current study. For example, scholars might explore potential curvilinear or conditional effects of creativity that are based on individual-level attributes of the resource provider, such as age. Similarly, with regards to affect, future studies could potentially explore the individual differences of resource providers that might influence their preference for, or even susceptibility to, affective reactions versus judgment-based considerations. In particular, researchers might consider if and how entrepreneurs can influence positive affective reactions in funders while also influencing judgments. Further, scholars might also explore additional factors that may trigger positive affect in resource providers during funding presentations.

Although we focused on a creativity-to-affect-to-funding relationship, we encourage future research to explore alternative explanations. For example, it is possible that potential funders might view a creative new product, decide to provide capital, and then experience positive affect as a result of anticipation stemming from receiving the product. In the current study, we introduced a one-week lag to guard against the possibility of reverse-causality. However, we recognize that no methodological approach is full proof, and encourage future research on crowdfunding to use experimental or quasi-experimental designs to better account for various relationships that may be present, particularly with regards to funder affect.

Finally, we drew upon judgment as an all-encompassing concept for decisions influenced more by merit than on affective reactions. Judgments may be formed via holistic assessments that are economically rational considerations of entrepreneurs’ pitches. Judgments may, however, be non-rational in the sense that resource providers simply draw upon heuristics to evaluate pitches. Thus, future research may benefit from a finer-grained examination of judgments, distinguishing rational and non-rational considerations and the potential even for affective reactions to influence a greater use of heuristics.

### 8.4. Conclusions

The role of perceived product creativity, along with its association with funder positive affect, represents a valuable yet understudied area of interest within entrepreneurship. Moreover, while past research has generally focused on ways in which funders’ perceptions of the entrepreneur(s) directly influence resource allocation decisions, we find that perceptual elements of the individual entrepreneurs and their pitched products can interact to create a stronger collective influence. We believe that these results should broaden the perspectives of both scholars and practitioners about the various inputs that shape funding outcomes.

### Acknowledgments

We would like to thank Dr. Mark Gavin and Dr. Oi-Man Kwok for their guidance and helpful comments related to our data analyses.

### References


