The dark side of source credibility: Differential effectiveness of credibility cues in fraudulent versus legitimate crowdfunding campaigns

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Abstract

Crowdfunding fraud represents an understudied yet increasingly prevalent form of business fraud with significant ethical implications. Despite increasing reports of deceptive crowdfunding campaigns, little is known about how these campaigns persuade funders and achieve success. Using a phenomenon-driven approach and drawing on source credibility theory, we examine how the effectiveness of three credibility cues (i.e., trustworthiness, attractiveness, and expertise) differs between fraudulent and non-fraudulent crowdfunding campaigns in forecasting their success. We theorize that subjective cues (i.e., trustworthiness and attractiveness) are especially persuasive for fraudulent campaigns, while objective cues (i.e., functional expertise) are more influential in non-fraudulent ones. Analyzing a matched-pairs sample of 204 Kickstarter campaigns, we find that the effects of cognition-based and affect-based trustworthiness and physical attractiveness are significantly stronger for the success of fraudulent campaigns than non-fraudulent campaigns. In contrast, functional expertise is more influential in driving success for non-fraudulent campaigns. This raises important ethical concerns about how perceptual cues, often assumed to reflect genuine intent, can be strategically misused to simulate legitimacy, thereby blurring the line between ethical and deceptive conduct on digital business platforms (e.g., crowdfunding).

Keywords: crowdfunding; entrepreneurial fraud; scam; source credibility theory

INTRODUCTION

Theranos founder Elizabeth Holmes captivated the world with her bold promise to revolutionize blood testing, emerging as one of the most compelling figures in Silicon Valley. In her now-infamous TED-style presentations, Holmes projected calm authority, moral purpose, and visionary ambition, skillfully leveraging the visual and narrative tools of digital persuasion to craft a compelling public image. Her appearance and deliberate voice projected credibility, convincing people that she knew what she was doing. She established credibility through subjective cues, such as trustworthiness and attractiveness. In contrast, experienced medical professionals raised concerns about the feasibility of Theranos's technology. However, their warnings, based on their expertise, were largely ignored. Holmes's subjective cues overshadowed the objective knowledge offered by experts. Her carefully engineered credibility won over powerful investors. Her eventual downfall became one of the most high-profile business frauds of the 21st century. This story illustrates a troubling ethical paradox in business: the appearance of credibility, when manipulated, may be more persuasive than credibility grounded in actual expertise. This manipulation of credibility underscores a fundamental ethical concern in business fraud: the persuasive power of subjective versus objective credibility cues may differ significantly depending on whether genuine or deceptive actors employ them.

Fraud has long been recognized as a pervasive ethical issue in business, drawing scholarly attention. Cressey's (1953) foundational work remains influential in understanding how frauds emerge. Building on this work, business ethics scholars have explored a wide range of issues related to fraud, including its prediction (DeZoort & Harrison, 2018), prevention (Smith-Crowe et al., 2015), detection (Verwey & Asare, 2022), and reduction (Rodgers et al., 2015). Still, as Anand and colleagues (2015) argue, fraud remains a difficult phenomenon to capture due

to its evolving forms and contextual variability. As new technologies reshape how business is conducted, fraudsters adapt accordingly. The expansion of business transactions over the Internet has created new vulnerabilities, enabling fraudsters to target individuals directly through online platforms by manipulating credibility cues (Nikitkov & Bay, 2008).

One such context gaining increasing scholarly and practical attention is crowdfunding. Crowdfunding is a social phenomenon of virtual online communities that facilitates interaction between entrepreneurs and prospective funders (Escudero et al., 2025). Entrepreneurs employ crowdfunding platforms to convince funders to back them through narratives describing their business ideas and detailing their abilities, beliefs, and values (Allison et al., 2015; Davis et al., 2017; Gafni et al., 2019; Oo et al., 2025). Crowdfunding is widely perceived as a positive and prosocial phenomenon in the entrepreneurial finance literature (Allison et al., 2013; Figueroa-Armijos & Berns, 2022). While most entrepreneurs on these platforms operate in good faith to raise needed funds for their ventures, the crowdfunding decision environment presents opportunities for unethical individuals to exploit funders. Funding decisions are often made quickly with limited opportunities for interaction, sometimes after reviewing little more than a brief video pitch in which entrepreneurs have only a few minutes to convey their ideas (Parhankangas & Renko, 2017). Thus, the crowdfunding context provides fertile ground for scammers to present seemingly credible projects in an attempt to defraud unsuspecting funders. Fraudulent campaigns can amass significant funds by manipulating the many funders who, on average, individually contribute relatively small amounts of money (Fredman, 2015). These relatively small contributions can add up to substantial amounts. For example, during crowdfunding's early years (2009-2015), fraudulent campaigns managed to secure an estimated 30 million US dollars on just two platforms across nine countries (Cumming et al., 2021).

Moreover, records from the United States Federal Trade Commission reveal that the number of reported crowdfunding fraud cases is growing (FTC, 2019).

As reflected in the case of Theranos, creators of fraudulent campaigns (or pitches in general) may employ less conspicuous cues that bolster the credibility of their campaigns, which is a key factor influencing performance in critical areas such as fundraising and customer acquisition (Huang et al., 2022). Since campaign credibility is instrumental in winning over skeptical funders, fraudulent campaigns have a clear incentive to incorporate credible cues. As such, a recent review of fraud research calls for future studies to theorize "how light side elements can be used in dark ways" (Scheaf & Wood, 2022). Consequently, we theorize that the positive nature of certain credibility cues, when utilized negatively by deceptive entrepreneurs, is more effective in persuading potential funders than the same credibility cues employed positively by legitimate entrepreneurs. By focusing on crowdfunding fraud as an emerging but under-theorized phenomenon of business misconduct, our study addresses calls for research on the diversity of fraud types in the business ethics literature (Anand et al., 2015), building upon prior investigations of entrepreneurial fraud (Scheaf & Wood, 2022; Wood et al., 2021) and crowdfunding-specific fraud (Cumming et al., 2021). Accordingly, we pose the following research question: *Does the relationship between specific credibility cues and the achievement of crowdfunding success differ between fraudulent and non-fraudulent campaigns?*

To address this question, we integrate source credibility theory with an impression management perspective (Derrick & Ligon, 2014). Specifically, we argue that subjective-focused cues of credibility (i.e., perceptions of trustworthiness and attractiveness) will exhibit a more positive relationship with crowdfunding success for fraudulent campaigns, compared to non-fraudulent ones. In contrast, objective-focused cues of credibility (i.e., stated forms of expertise)

are expected to have a comparatively more positive relationship with crowdfunding success for non-fraudulent campaigns. Using a matched-pairs sample of 204 fraudulent and non-fraudulent crowdfunding campaigns, we find general support for our conceptual model.

Our study makes two primary contributions to the literature on business ethics and entrepreneurship. First, while different types of fraud have been studied as a violation of business ethics (Munawiroh & Rumawi, 2023), crowdfunding fraud is recognized as an emerging and ethically significant issue in the evolution of business ethics (Uriarte et al., 2025). It is also an underexplored phenomenon within the broader domain of business fraud, which is widely recognized as a central concern in business ethics (Nikitkov et al., 2014). Fraud in this context not only misleads funders but also undermines the legitimacy of crowdfunding as a funding mechanism for early-stage ventures. Using a phenomenon-driven approach, we show how the persuasiveness of credibility cues varies depending on the ethical status of the actor, advancing understanding of how ethical and unethical entrepreneurs leverage distinct persuasive strategies in the process of resource acquisition. By doing so, our study addresses recent editorial calls for research on phenomenon-driven theorizing grounded in real-world business contexts (e.g., Ployhart & Bartunek, 2019; Fisher et al., 2021).

Second, our study challenges the implicit assumption in the business ethics literature that credibility cues inherently reflect ethical conduct and moral character (e.g., Caldwell et al., 2008). We argue and present evidence that fraudsters can strategically co-opt these cues, often seen as indicators of ethical stewardship, to simulate legitimacy and deceive funders. This directly responds to calls in entrepreneurial fraud literature to examine how "light side elements can be used in dark ways" (Scheaf & Wood, 2022). In addition, many applications of source credibility theory assume that credibility cues are inherently positive and authentic. Moreover,

little attention has been given to the distinctive effects arising from the honest use of credibility cues by legitimate entrepreneurs versus the deceptive practices of fraudsters. Our theorization addresses this gap by illustrating how positive credibility cues can be utilized negatively, highlighting fraud's contingent effect on source credibility. Our findings offer insights to mitigate the risk of fraud on crowdfunding platforms, preventing the unethical exploitation of funders. By emphasizing the significance of subjective credibility cues, our research highlights the necessity for heightened awareness and vigilance by stakeholders on crowdfunding platforms.

ENTREPRENEURIAL FRAUD AND THE DECEPTIVE USE OF CREDIBILITY CUES

Fraud is traditionally defined as representing "any intentional or deliberate scheme that one person uses to gain an unfair advantage over another person by resorting to lying, trickery, surprise, cunning, cheating or by any other unfair means." (Cerullo & Cerullo, 1999, p. 14). It manifests when misrepresentation is utilized to secure unfair advantages, distinguishing itself from a routine and normal transaction (Shover et al., 2004). At the heart of fraudulent activities lies the perpetrator's distortion of a material fact, leading to harm inflicted upon the trusting victim who acted based on the false information provided (Titus, 2001). In crowdfunding, multiple types of fraud, such as suspected fraud and detected fraud, have been considered (Cumming et al., 2021). Suspected fraud includes behaviors such as ceasing communication with funders, failing to deliver promised rewards, and misrepresenting product features and information. Detected fraud involves actions like being suspended by the platform and falsely claiming readily available, cheaper products from wholesale shopping platforms (e.g., Alibaba) as original inventions.

Therefore, the prevalence of fraudulent campaigns poses significant challenges to the integrity of crowdfunding platforms, undermining trust and stakeholder confidence (Cumming et

al., 2021; Zenone & Snyder, 2019). To date, research on crowdfunding fraud has explored both typologies, predictors, and remedies. For example, Zenone and Snyder (2019) offer a classification of fraudulent behaviors in medical crowdfunding and propose policy reforms for greater accountability. Teichmann and colleagues (2024) extend this work by connecting crowdfunding fraud to financial crimes including money laundering and compliance failures. Cumming et al. (2021) identify the categories of suspended fraud and detected fraud and predictors including vague language, unrealistic goals, and inconsistent communication. Their work emphasizes that crowdfunding fraud is not only frequent but also economically significant and reputationally damaging for legitimate entrepreneurs. Other research highlights the role of technology, advocating for blockchain and smart contract mechanisms to regulate fund release and reduce funder exposure (Kumar et al., 2023; Pandey et al., 2019). Complementing these efforts, system-level governance approaches have also emerged. Bradford (2017) proposes online arbitration as a practical mechanism for resolving fraud disputes, while Siering and colleagues (2016) use machine learning techniques to identify suspicious linguistic and content patterns in crowdfunding campaigns.

Despite these advances, much of the prior literature focuses either on macro-level policy or on platform-centric enforcement, with less attention given to the micro-level cues that allow deceptive actors to succeed in the first place. This gap is significant because fraudulent actors do not succeed by hiding; they succeed by appearing legitimate and credible. Leveraging the crowdfunding context, our study capitalizes on the wealth of rich and dynamic information available in pitch videos (Allison et al., 2022; McSweeney et al., 2025a). We contend that understanding the combination of these dynamic cues is crucial for deciphering information relevant to how fraudulent individuals effectively manipulate and deceive their victims.

Moreover, the prevailing focus on business fraud has been toward "dark" (i.e., negative) elements such as moral disengagement or the gullibility of potential victims. In addition, most studies assume that source credibility cues are genuinely used to enhance “bright” elements of the actor (e.g., Wymer & Drollinger, 2015). In contrast, our study offers a new perspective by theorizing how positive or "bright" elements can be harnessed in unethical ways. In essence, our research aims to explore how credibility cues are strategically utilized for fraudulent purposes. In the subsequent section, we introduce our conceptual framework, drawing from source credibility theory, to formulate predictions about which facets of credibility are more closely associated with the success of fraud in crowdfunding campaigns, distinguishing them from non-fraudulent crowdfunding campaigns.

THEORY AND HYPOTHESIS DEVELOPMENT

Source Credibility Theory

The persuasive impact of a message hinges on the perceived credibility of its source (Hovland et al., 1953). Ohanian (1990) defines source credibility as "a communicator's positive characteristics that affect the receiver's acceptance of a message." The foundational elements of source credibility, originally proposed in social psychology, encompass expertise and trustworthiness (McGinnies & Ward, 1980). Subsequently, research across communications, consumer behavior, and journalism has converged to introduce attractiveness as a third dimension of credibility, establishing and then validating a triadic structure (Eisend, 2006).

Among the three primary elements of source credibility (Ohanian, 1990), expertise reflects the perceived knowledge of a source (Pornpitakpan, 2004), trustworthiness pertains to the perceived honesty and transparency of the source's actions (Hsueh, 2018), and source attractiveness involves the perceived social value of the source, including factors like

appearance, likeability, and similarity to observers (Schlecht, 2003). Some studies directly assess the effectiveness of these three elements, while others explore cues that can be employed to infer them. Examples include online reputation (Banerjee et al., 2017), celebrity endorsement (Jain & Posavac, 2001), online forum rankings (Rahim et al., 2015), and logos (Lowry et al., 2014).

Presenting oneself as credible is a fundamental objective in impression management for persuasive communication (Westphal et al., 2012). Impression management involves strategic efforts to shape specific perceptions in the minds of others (Goffman, 2002). Consequently, prior research indicates that impression management tactics can enhance dimensions of credibility such as expertise, trustworthiness, and attractiveness (Derrick & Ligon, 2014). Given that credibility is formed through perceptions of cues and impression management tactics employed by the source, these cues can be objective (i.e., representing facts) or subjective (i.e., matters of opinion) (Gorman et al., 1978). In the context of crowdfunding, we argue that the nature of credibility cues (i.e., whether they are objective or subjective) exhibited by entrepreneurs will differentially predict the successful attainment of funding goals when comparing fraudulent and non-fraudulent campaigns. Thus, source credibility theory, emphasizing communicated cues, serves as our overarching theoretical framework, guiding the formulation of fraud-specific predictions regarding how cues expressed in fraudulent versus non-fraudulent crowdfunding campaigns differ in their relationship with the attainment of funding outcomes.

Source Expertise

Expertise pertains to the degree to which observers perceive that an individual possesses the knowledge, skill, and experience necessary for effective task performance (Hovland et al., 1953; McGinnies & Ward, 1980). It can be categorized based on function or domain (Sawhney & Kaplan, 1999). Functional expertise involves specific capabilities enabling individuals to excel

in their roles (Bowman et al., 2014), while domain expertise denotes an individual's understanding of a context, field, or environment (Novita, 2021). In crowdfunding, entrepreneurs are likely to have some degree of: (1) specific skills to develop their products and (2) knowledge about crowdfunding platforms. Consequently, we argue that entrepreneurs possess functional expertise if they have work experience relevant to the product they present to funders. Entrepreneurs are conceptualized as having domain expertise if they have previous experience launching a crowdfunding campaign.

Functional expertise and domain expertise are objective cues since these forms of expertise can be factually determined (cf. Rissanen et al., 2014). From an impression management perspective, both represent objective claims about an entrepreneur's past. While these objective cues can benefit both fraudulent and non-fraudulent campaigns, their impact is likely to differ. Genuine campaigns readily showcase verifiable expertise through campaign details and external attestations (e.g., Courtney et al., 2017). For legitimate campaigns, objective cues such as project quality and verifiable expertise help reduce information asymmetry (Huang et al., 2024) and enhance project feasibility. When funders perceive high credibility through objective cues such as expertise, they are more likely to engage in a more systematic and analytical processing of information (Chaiken, 1980). Therefore, this engagement with objective cues allows legitimate entrepreneurs to build credibility that withstands scrutiny.

While fraudulent campaigns may attempt to showcase such displays, their inherent lack of genuine substance creates critical inconsistencies. Fraudsters, aiming primarily to deceive funders, struggle to maintain consistency with their fabricated expertise claims and other campaign elements. Consequently, fraudsters face heightened risks of exposure when relying on objective cues, as these prompt funders to engage in deliberative assessment rather than heuristic

judgment (Petty & Cacioppo, 1986). This deliberative processing renders their fabricated claims vulnerable to detection, thereby disproportionately disadvantaging them and diminishing their credibility, ultimately strengthening the case for legitimate entrepreneurs.

Therefore, by prioritizing objective-based tactics, such as expertise, legitimate entrepreneurs can evoke perceived credibility more easily than fraudsters can. In contrast, fraudsters may avoid expertise as a credibility cue. They must instead rely more on subjective cues that engender emotional responses rather than objective cues, such as expertise, which might encourage critical evaluation of campaigns. Thus, drawing on logic derived from source credibility theory and the objective nature of domain and functional expertise cues, we propose our first set of hypotheses:

> **Hypothesis 1a***:* Domain expertise expressed in campaigns will be more positively related to crowdfunding success for non-fraudulent than for fraudulent campaigns.
>
> **Hypothesis 1b***:* Functional expertise expressed in campaigns will be more positively related to crowdfunding success for non-fraudulent than for fraudulent campaigns.

Source Trustworthiness

Source credibility theory identifies trustworthiness as a key facet of credibility (Ohanian, 1990). In contrast to expertise, which revolves around skills and knowledge being objectively confirmable, trustworthiness pertains to the perceived willingness and intention of a source to provide accurate, unbiased information (Gottschling et al., 2020). Stemming from perceptions of honesty and believability (Lim, 2013), trustworthiness is a subjective cue that significantly impacts audience perception and shapes overall source credibility (e.g., Ohanian, 1990; Qahri-Saremi & Montazemi, 2019). Notably, trustworthiness can manifest through cognition or affect (McAllister, 1995). Trustworthiness based on cognition arises from expressions of reliability and dependability, while affect-based trustworthiness stems from expressions of care and concern

(Schaubroeck et al., 2011). In crowdfunding, where personal interactions are absent, trustworthiness relies on subjective impressions rather than direct experiences (Zou et al., 2015). Consequently, fraudsters can exploit this reliance on subjective impressions in crowdfunding, skillfully crafting pitches that convey dependability and empathy to deceive potential funders.

From an impression management perspective, fraudulent campaigns face a heightened need to establish trustworthiness through emotionally persuasive appeals and deceptive tactics, in contrast to genuine campaigns (cf., Kircanski et al., 2018). This necessity arises from the inability of fraudulent campaigns to provide verifiable and objective information supporting the legitimacy of their endeavors. Exploiting the predisposition of potential funders to trust, fraudsters strategically present themselves as trustworthy individuals, diverting attention away from potential red flags or inconsistencies in their campaigns.

These effects can be further explained through the affect heuristic (Slovic et al., 2007) and heuristic processing (Kahneman, 2011), which suggest that emotionally appealing portrayals of trustworthiness evoke rapid, intuitive judgments that require minimal cognitive effort. When funders encounter subjective cues such as perceived trustworthiness, they are more likely to form favorable impressions without engaging in critical deliberation or reasoning (Fichter, 2018). This strategic activation of heuristic thinking allows fraudsters to bypass the more effortful, systematic analytical processing (Williams, Morrison, & Wiggins, 2024). In this way, fraudsters exploit affective impressions of trust to manipulate funders' perceptions while avoiding the risks of objective scrutiny.

In summary, trustworthiness is crucial for crowdfunding success across all types of campaigns. However, fraudulent campaigns in particular must rely heavily on instilling perceptions of trustworthiness, manipulating impression management to emphasize subjective

cues that elicit emotional responses while evading rigorous verification. This point aligns with observations in the broader literature on fraud concerning fraudsters trying to "appear" trustworthy to exploit unsuspecting victims (Jansen & Leukfeldt, 2015). In contrast, legitimate entrepreneurs are able to build trustworthiness through transparency and authenticity, welcoming rigorous scrutiny of their campaigns. Hence, drawing from logic based on source credibility theory and the subjective nature of cognition-based and affect-based trustworthiness cues, we propose our second set of hypotheses:

> **Hypothesis 2a***:* Cognition-based trustworthiness will be more positively related to crowdfunding success for fraudulent than for non-fraudulent campaigns.
>
> **Hypothesis 2b:** Affect-based trustworthiness will be more positively related to crowdfunding success for fraudulent than for non-fraudulent campaigns.

Source Attractiveness

Expanding upon source credibility theory, Ohanian (1990) introduced and validated source attractiveness as a third factor crucial for a source to influence a target effectively. Empirical evidence supports the notion that attractiveness enhances perceptions of source credibility (Patzer, 1983). Attractiveness, being a perceptual concept influenced by personal preference, serves as a subjective cue for evaluating source credibility, particularly in the absence of other pertinent information (Reinhard & Sporer, 2010). The literature on impression management and personality echoes similar sentiments, suggesting that observers utilize both physical and vocal attractiveness to infer source credibility, especially when making swift judgments based on limited data (Surawski & Ossoff, 2006). Recognizing these effects, organizations invest significant resources in hiring physically attractive individuals to disseminate carefully crafted messages, aiming to persuade potential customers to purchase their products (Amos et al., 2008). Stakeholders, including investors, have likewise been shown to be

influenced by such biases, even with respect to their susceptibility toward being swayed to fund ventures led by physically attractive entrepreneurs (Baron et al., 2006). These findings are often attributed to the "what is beautiful is good" stereotype, which aligns with research demonstrating that judgments of perceived attractiveness are made in the same neural regions of the brain responsible for interpretations of morality (Tsukiura & Cabeza, 2010). Additionally, the "what sounds beautiful is good" stereotype suggests vocal attractiveness can positively bias observers' judgments, making them more susceptible to manipulation (Zuckerman & Driver, 1989). Thus, source attractiveness includes both physical and vocal characteristics.

In contrast to authentic campaigns, fraudulent campaigns face a heightened imperative to appear and sound attractive to compensate for their lack of objective credibility. Source credibility theory has previously been used to link a source's physical attractiveness to increased risk levels in judgments made by targets, facilitating their likelihood of victimization (Eulerich et al., 2018). This aligns with our argument that attractiveness bypasses or substitutes for systematic decision-making, leading to rapid judgments based on surface characteristics. From an impression management standpoint, fraudsters can leverage emotional responses as an exploitative tactic by presenting themselves as physically attractive.

This strategy often activates the "halo effect" (Batres & Shiramizu, 2023) since prior research has shown that attractive people are perceived as more competent (Spielmann, Gomez, & Minton, 2024). Due to this “beauty premium” effect (Mobius & Rosenblat, 2006), the positive impression of physical or vocal attractiveness spills over to influence perceptions of other unrelated traits, such as competence, honesty, and overall project viability. In the fast-paced crowdfunding environment, this allows deceptive campaigns to short-circuit critical evaluation, as attractive communicators are often granted greater leniency and less scrutiny than their less

attractive counterparts under ambiguous conditions when information is limited (Landy & Sigall, 1974). Indeed, recent research has indicated that attractive people are judged as more believable and less deceptive (Murai, Nose, & Takiguchi, 2018). Therefore, attractiveness acts as a powerful heuristic, allowing fraudsters to capitalize on superficial appeal to circumvent rigorous evaluation and scrutiny that would otherwise expose their deception.

A key distinction is that while fraudsters and legitimate entrepreneurs may possess physical attractiveness, fraudsters have a greater incentive to leverage this trait for deceptive purposes. This emphasizes that attractiveness, when utilized for deceptive ends, may be a particularly powerful tool for fraudsters to manipulate perceptions of credibility. Legitimate entrepreneurs, in contrast, are instead more easily able to rely on the merits of their projects. Therefore, while we anticipate a positive relationship between physical and vocal attractiveness with crowdfunding success for all crowdfunding campaigns, fraudulent campaigns are likely to derive comparatively greater benefits from attractiveness. In sum, building from logic based on source credibility theory and the subjective nature of physical and vocal attractiveness, we offer the following hypotheses:

Hypothesis 3a. Physical attractiveness will be more positively related to crowdfunding success for fraudulent than for non-fraudulent campaigns.

Hypothesis 3b. Vocal attractiveness will be more positively related to crowdfunding success for fraudulent than for non-fraudulent campaigns.

METHODS

To examine our conceptual model, we employ a matched-pairs design, building on research by Cumming and colleagues (2021) regarding crowdfunding behaviors that signal fraud. We drew our sample from the Kickstarter crowdfunding platform. Kickstarter is the most popular reward-based crowdfunding platform, with over $8 billion raised. We chose Kickstarter

as our empirical context for three reasons. First, fraud is disproportionately identified in reward-based crowdfunding, particularly on Kickstarter, which lacks formal investor protections. Indeed, it is also a platform that experiences deep concern regarding fraudulent activities from multiple stakeholders, including scholars, government consumer protection entities, news media, and funders (e.g., Anders, 2021; Calic et al., 2021; Popper, 2015). For example, after analyzing multiple types of crowdfunding platforms, Zafar (2023) concluded that 87% of the largest crowdfunding scams and failures of all time (14 out of 16 campaigns) launched their campaigns on Kickstarter. Second, reward-based platforms provide a unique advantage in detecting fraud. Campaigns are tied to physical products, which allows funders and researchers to verify delivery outcomes, origin of products (i.e., whether these are products they actually invented or bought from wholesale markets and resold through the platform). This transactional nature, where funders expect a tangible return for their contribution, makes it closer to typical business interactions and less feasible on donation-based platforms (which typically do not promise anything tangible) or equity-based platforms (which are usually governed by financial regulations). Third, Kickstarter campaigns heavily emphasize visual and narrative persuasion (e.g., pitch videos, profile photos, and past project performance). These elements make it an ideal setting to study how subjective and objective credibility cues influence funder perceptions. Importantly, there are different categories of fraud within this context. Some campaigns are detected as fraud while still active, prompting project cancellation by creators or suspension by the platform (e.g., Kickstarter). Others are only identified as fraudulent post-funding, when funders realize that entrepreneurs have misrepresented crucial facts about their products, such as their true origins (e.g., as a fake). Some campaigns are suspected of being fraudulent when entrepreneurs cut off communication with funders without delivering promised rewards or

providing refunds. This diversity of fraud types provides an empirically rich context for examining how credibility cues are leveraged in crowdfunding campaigns.

As there are no databases dedicated to tracking fraudulent campaigns, we went through a series of steps to identify potential fraudulent campaigns. We began searching for two fraud-related keywords: *fraud* or *scam* in the comment sections of campaign pages. The comment sections enable potential funders to share their concerns regarding the legitimacy of crowdfunding campaigns. Our initial search of those keywords from 2009 to 2022 yielded a population of 9,052 campaigns, of which 8,385 were successful (i.e., meeting or exceeding their campaign goals) and only 667 were unsuccessful. Among campaigns with keywords, more than 92% were successful. This high percentage is logical when considering that funders would most likely realize the fraudulent nature of campaigns only after creators have absconded with their funds. Therefore, using a random sampling approach would result in high skewness in our outcome variable (i.e., campaign success). Additionally, a random sampling approach would yield high skewness in our predictor variable (fraudulent vs. non-fraudulent) as well, since there are likely many more legitimate campaigns than fraudulent ones. High skewness makes a random sampling approach unsuitable. Instead, we adopted a matching sample approach using a two-step procedure to balance campaigns for both the outcome and the predictor.

First, given the foundational study by Mollick (2014) found a Kickstarter campaign fundraising success rate of approximately 50%, we attempted to construct a more balanced sample on the campaign outcome by identifying non-successful fraudulent campaigns, then matching them with an equal number of successful fraudulent campaigns. After removing unsuccessful campaigns that did not feature visual or verbal communication, the count of unsuccessful campaigns with keywords decreased from 667 to 206. Recognizing that the

presence of fraudulent keywords in comments might not exclusively indicate fraud allegations, we undertook a comprehensive review of each campaign's details—including Kickstarter status, creator updates, and funder comments. To minimize false positives, we relied on either objective indicators or consistent patterns identified through triangulation. A campaign was classified as fraudulent if it met at least one of the following criteria: (1) multiple funders independently accused the campaign of fraud in a consistent manner; (2) the campaign was cancelled or suspended by Kickstarter; or (3) the campaign raised funds successfully but failed to deliver the promised rewards and ceased further communication with funders. This process yielded a sample of 51 unsuccessful fraudulent campaigns. Then, we followed the same process to identify 51 successful fraudulent campaigns to have a success rate of 50%. This led to a total of 102 fraudulent campaigns for our analysis. Although the final number of fraudulent campaigns decreased notably compared to the initial number identified through our initial keyword search due to the process described above, it was necessary to reduce Type I error, minimize skewness in campaign outcomes, and eliminate campaigns with missing data for our key variables. Our sample of fraudulent campaigns encompasses various types of fraud. One instance involved an individual who raised money for consumer electronics accessories but ceased communication with funders and never delivered the promised rewards (a case of non-delivery fraud). In another instance, a campaign was launched for a charging accessory that was readily available and cheaper on wholesale platforms, demonstrating non-invention fraud. Other individuals were also caught soliciting additional funds through external channels without intending to deliver rewards or while misrepresenting features and crucial product information.

Second, to fulfill our objective of comparing fraudulent versus non-fraudulent campaigns, we employed exact matching grounded in two financial indicators: campaign goal and campaign

outcome. Recognizing the potential influence of campaign category on popularity among funders and susceptibility to fraudulent activities, we introduced category as a third matching criterion. In instances where an exact match was unavailable, such as for the campaign goal, we opted for matching campaigns with goals closest to those of the focal campaigns. For example, a focal campaign with a $4,900 goal was paired with a matching campaign with a $5,000 goal. Our final matched pair sample consisted of 204 campaigns.

To enhance the robustness of our matching procedure, we utilized coarsened exact matching (CEM), which outperforms other matching methods by more effectively aligning the distributional characteristics of the groups, thereby reducing the risk of statistical bias (Iacus et al., 2012). The CEM results indicate an in-sample multivariate imbalance (L1) of 0.027, reflecting a high degree of balance (Blackwell et al., 2009). An L1 score of 0 signifies perfect balance, with higher scores indicating greater differences between groups (maximum L1 = 1). Table 1 presents the univariate imbalance post-matching, with L1 scores of nearly 0.00 for all variables, demonstrating excellent balance. Table 2 provides descriptive statistics for the matching variables across the treatment and control groups, revealing nearly identical mean and standard deviation values (e.g., the average campaign goal (logged) for both fraudulent and non-fraudulent campaigns is 4.16). Additionally, we performed t-tests, which revealed no significant differences between fraudulent and non-fraudulent campaigns in terms of campaign goal (p = 0.96), campaign category ($p > 0.99$), or campaign outcome ($p > 0.99$). Collectively, the low L1 values, comparable descriptive statistics, and t-test results indicate the success of our matched-pair sampling approach.

In addition, to ensure that our final sample is representative of the broader Kickstarter population and not subject to selection bias, we conducted independent samples t-tests

comparing our matched sample to a larger dataset of 10,000 Kickstarter campaigns on the two financial indicators used in our matching process: campaign goal and campaign outcome. The results revealed no significant differences (p = .150 for campaign goal; p = .460 for campaign outcome), indicating that our sample is statistically comparable to typical Kickstarter campaigns and does not suffer from systematic bias.

Then, we collected data for our focal variables from campaign pages and creators' profile pages. This approach ensures the robustness of our dataset, enabling a comprehensive analysis of our conceptual model, contrasting identified fraudulent and non-fraudulent campaigns. The use of the matched-pair design and controlling for other campaign characteristics in our analysis allows us to minimize selection bias that might have been present in a random sampling approach and improve statistical precision and efficiency despite the limitations posed by a relatively small sample size (Austin, 2011).

Measures

Dependent variable. In alignment with established literature examining factors relating to effective persuasion via crowdfunding platforms, we measured *crowdfunding success* as a dichotomous outcome indicating whether a campaign reached its funding goal (e.g., Parhankangas & Renko, 2017). While other crowdfunding studies have used the amount of money raised as a continuous measure (e.g., Anglin et al., 2018), we chose this binary operationalization of the dependent variable for two reasons. First, it aligns with the rules set by Kickstarter for campaigns on their platform. The nature of Kickstarter is all-or-nothing. Entrepreneurs receive funds only when their campaigns meet or exceed their targeted funding goals within a set timeframe. If the goal is not met, all funds are returned to the funders. Second, from the perspective of fraudsters, their endeavors are only deemed successful when they

convincingly persuade funders to pledge to their fraudulent campaigns and transfer the funds into their accounts. Regardless of the pledged amount, success for them hinges on reaching the funding goal they indicated at the campaign launch. Consequently, this was coded "1" to denote a successful campaign and "0" for those that did not meet their funding goal.

Independent variables. To assess the three dimensions of source credibility, we employed a manual coding and videometric technique commonly applied in crowdfunding research (e.g., Allison et al., 2022). First, to measure *domain expertise* and *functional expertise*, we manually reviewed each campaign page and creator profile page. For domain expertise, we specifically examined the creator's profile and checked whether they had success in prior crowdfunding campaigns. This variable was coded as "1" if entrepreneurs had prior success in crowdfunding and "0" if they did not. For functional expertise, we followed an approach commonly used in top management literature (e.g., Tabesh et al., 2019) by coding this variable "1" if the entrepreneur demonstrated functional experience relating to the crowdfunding campaign, and "0" if they did not. Below is a representative example of text demonstrating prior functional experience (note: the campaign was for an image-sharing application for mobile devices):

> *"I'm also a proven software engineer, having worked for a few Fortune 50 companies. That was fun, for a time, but then I started thinking that building apps for myself would be much more fun."*

To assess our two types of trustworthiness, we followed work from a recent crowdfunding study by Oo et al. (2022) that adapted three items in the context of crowdfunding for each type of trustworthiness, paired with a seven-point Likert-type scale (ranging from 1= strongly disagree to 7 = strongly agree). Similar to Chua et al. (2008) and Schaubroeck et al. (2011), Oo and colleagues adapted the measure from McAllister (1995) and used three items that

were most applicable to the crowdfunding context. The items for *cognition-based trustworthiness* are: "I see no reason to doubt his/her ability and preparation to finish this project," "This person approaches his/her crowdfunding project with professionalism and dedication," and "I can rely on this person to finish this project." For *affect-based trustworthiness*, the items are: "I believe that the person has funders' best interests in mind," "When watching the pitch video, I felt he/she displayed a warm and caring attitude towards funders," and "If funders ask for updates about the project, I feel he/she would respond caringly." Using these items and following the approach of prior crowdfunding and entrepreneurial pitch studies that utilized field data (e.g., Warnick et al., 2021), two trained independent coders, naïve to our hypotheses, viewed the pitch videos and provided ratings used to score these variables. Cronbach's coefficient alphas of item ratings for cognition-based trustworthiness and affect-based trustworthiness were observed as ranging from 0.92 to 0.95, in each case above the traditional threshold level of 0.70 (Hair et al., 2019). Next, we assessed intraclass correlation coefficients, observing 0.87 for affect-based trustworthiness and 0.90 for cognition-based trustworthiness, meeting or exceeding the common threshold value of 0.75, indicating good interrater reliability (Portney & Watkins, 2009). Items were averaged to form individual measures of cognition-based and affect-based trustworthiness.

Lastly, to measure physical attractiveness and vocal attractiveness, two different coders were asked to rate the *physical attractiveness* of entrepreneurs in pitch videos using three items, paired with a seven-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree). Higher scores represented greater attractiveness. Following Otterbring (2020), these items were: "The person is physically attractive," "The person is good looking," and "The person is handsome/pretty." Cronbach's coefficient alphas for physical attractiveness, derived from rating

of two independent raters, were 0.92 and 0.96, exceeding the 0.70 threshhold for reliability (Hair et al., 2019). We found that the intraclass correlation coefficient for physical attractiveness between two raters was 0.82, indicating good interrater reliability. Items were therefore averaged, with higher scores indicating greater physical attractiveness. For *vocal attractiveness*, we followed the work of Zuckerman and Miyake (1993) by asking coders to rate entrepreneurs' voices on a seven-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree). A higher score represented greater attractiveness. The item used was "The person's voice is attractive." The intraclass correlation coefficient for vocal attractiveness between the two coders was 0.91, indicating good interrater reliability (Portney & Watkins, 2009).

Moderator. We categorized campaigns as *fraudulent* or *non-fraudulent*. A binary variable was used, coded as "1" for fraudulent campaigns and "0" for non-fraudulent campaigns. As explained above, we used objective indicators (such as platform intervention or lack of reward delivery and communication) and a triangulation strategy (multiple accusations) to avoid, detect, and screen out false positives. To avoid capturing failed but non-fraudulent campaigns (e.g., McSweeney et al., 2025b), we classified campaigns as fraudulent only when at least one of the following criteria was met: (1) a campaign was canceled or suspended by Kickstarter. Such actions typically occur after the platform identifies misrepresentation of product origin or features, inaccurate creator information, or other violations of its terms of service; (2) a campaign failed to fulfill promised rewards, and no subsequent communication was made with funders after successfully raising money. This objective lack of reward delivery and post-campaign engagement provided clear evidence supporting the fraudulent classification; (3) multiple independent funder accusations of fraud that were consistent in nature. The presence of several separate accusations identified through a triangulation approach provided stronger

evidence of fraud. For example, one fraudulent campaign in our sample was accused of "non-invention," a direct violation of Kickstarter policy: funders discovered the creator fraudulently claimed they created a product that was already widely available on the market, which subsequently led to Kickstarter suspending the campaign. We suggest this approach is both more comprehensive and more conservative than alternative approaches, such as relying solely on media reports, as it relies on objective indicators and multiple sources (triangulation).

In contrast, non-fraudulent campaigns were classified through manual verification and only included if they met both of the following conditions: (1) the campaign showed no signs of controversy or fraud-related complaints in the comment section, and (2) there was no evidence of cancellation or suspension by the platform. This conservative approach to classification ensures high confidence in the validity of both fraudulent and non-fraudulent classification, aligning with our focus on analyzing how credibility cues function across ethically distinct campaign types.

Control variables. A number of control variables relating to campaigns and rewards were included. *Campaign goal* and *campaign duration* were used as controls since the amount of money requested and the time that a campaign has been active can influence campaign success (Mollick, 2014). We controlled for the *number of FAQs* (frequently asked questions) included in the crowdfunding narrative because including answers to commonly asked questions can indicate the preparedness of the entrepreneur and reduce information asymmetry between entrepreneurs and funders. Entrepreneur *gender* and *ethnicity* were used as controls given the known effects of these demographic variables on crowdfunding outcomes (Anglin et al., 2022). Gender was coded as "1" for male and "0" for female. Ethnicity was coded as "1" for white and "0" for non-white (e.g., Anglin et al., 2018). *Internal social capital* expressed through the platform was controlled for by using the number of campaigns the entrepreneur previously supported to address the

potential effects of reciprocity (Colombo et al., 2015). Similarly, we also controlled for social capital outside the platform by using a dummy variable coded as "1" for campaigns that include links to the entrepreneur's Facebook account and "0" otherwise. We controlled for *product innovation* using a four-item measure developed by Plambeck (2012), with higher scores representing greater innovativeness (e.g., Oo et al., 2019). Cronbach's coefficient alpha for product innovation was 0.87. Based on the work of Clark (2008), we also controlled for *pitch quality* using four key categories: clarity and understandability, presentational structure, level of information provided, and presentational persuasiveness. The Cronbach's coefficient alpha produced by the measure was 0.85. We also controlled for whether the campaign was a *Kickstarter-featured* project on the platform to capture the product's innovativeness, the quality of the pitch itself, and the additional exposure and potential endorsement signal of being a featured campaign. This item was coded "1" if the project was platform featured, and "0" otherwise. We coded the number of *collaborators* involved in the campaign by counting the number of different people involved in the project, as this provides information about human and social capital. Finally, to quantify the quality of the crowdfunding pitch webpage, we controlled *word count*, *number of images* included within the narrative, and *number of external links* (Chan & Parhankangas, 2017).

RESULTS

[Insert Tables 1-4 about here.]

Table 3 presents correlations and descriptive statistics for all controls and focal variables used in our hypothesis testing. Since it is not uncommon to have high correlations among credibility cues (e.g., Johnson & Grayson, 2005; Newman et al., 2014; Oosterhof & Todorov, 2008; Yang et al., 2009; Zuckerman et al., 1989) and these were significantly correlated, we

mean-centered all predictors in our models to reduce nonessential multicollinearity (Tangirala & Ramanujam, 2008). Our multicollinearity checks for the regression models examined revealed that the maximum VIF was 4.15 and the average VIF was 1.71. Thus, no evidence of multicollinearity was observed in hypothesis testing (Hair et al., 2006). Table 4 presents our binary logistic regression models predicting crowdfunding campaign success. Model 1 presents results for control variables on campaign success. Consistent with the practice of recent management studies which introduce interaction terms individually within separate regression models to reduce multicollinearity and overfitting while increasing interpretability and statistical power (e.g., Kor & Tan, 2023; Taeuscher et al., 2021), Models 2-7 present the regressions used to test each hypothesis, examining whether the relationship of each form of source credibility with campaign success is significantly different between fraudulent and non-fraudulent campaigns. Finally, Model 8 presents each of these models tested jointly, including all six forms of source credibility and their interactions with whether the campaign was fraudulent.

Hypothesis 1a proposed that domain expertise is more positively related to crowdfunding success for non-fraudulent than for fraudulent campaigns. The results fail to support this hypothesis since Model 2 shows a non-significant interaction between domain expertise and fraud (coefficient = -0.25, $p > 0.05$), indicating that domain expertise on campaign outcome has no significant difference between fraudulent and non-fraudulent campaigns.

Hypothesis 1b proposed that functional expertise is more positively related to crowdfunding success for non-fraudulent than for fraudulent campaigns. Our results supported this hypothesis: Model 3 shows a significant negative interaction between functional expertise and fraud (coefficient = -2.31, $p < 0.05$), indicating that functional expertise has a more positive relationship with the success of non-fraudulent than fraudulent campaigns. Figure 1 illustrates

this interaction, showing a substantially more positive effect of functional expertise on the success of non-fraud campaigns, with the slope for non-fraudulent campaigns being steeper than that for fraudulent ones.

Hypothesis 2a proposed that cognition-based trustworthiness is more positively related to crowdfunding success for fraudulent campaigns than for non-fraudulent ones. Our analysis supports this hypothesis. Model 4 shows a significant positive interaction between cognition-based trustworthiness and fraud (coefficient = 1.22, $p < 0.05$), indicating that cognition-based trustworthiness has a stronger positive effect on success in fraudulent campaigns. Figure 2 illustrates this effect, with the slope for fraudulent campaigns being steeper than that for non-fraudulent ones, indicating the greater impact of cognition-based trustworthiness in fraudulent campaigns.

Hypothesis 2b proposed that affect-based trustworthiness is more positively related to crowdfunding success for fraudulent than for non-fraudulent campaigns. Our results also support this hypothesis. Model 5 shows that affect-based trustworthiness is more positively related to the success of fraudulent than of non-fraudulent campaigns (coefficient = 0.94, $p < 0.05$) at a statistically significant level, indicating that affect-based trustworthiness has a stronger positive effect on success in fraudulent campaigns. Figure 3 illustrates this interaction, again with a much stronger positive effect of affect-based trustworthiness on the success of fraudulent campaigns, with a steeper slope for fraudulent campaigns.

[Insert Figures 1-4 about here.]

Hypothesis 3a predicted that physical attractiveness is more positively related to crowdfunding success for fraudulent than for non-fraudulent campaigns. Results in Model 6 show that physical attractiveness has a more positive relationship with the success of fraudulent

than non-fraudulent campaigns (coefficient = 1.60, $p < 0.05$), supporting H3a. Figure 4 illustrates this interaction with a steeper slope for fraudulent campaigns, depicting a pattern in which the relationship between physical attractiveness and crowdfunding success is stronger for fraudulent campaigns.

Finally, Hypothesis 3b predicted that vocal attractiveness is more positively related to crowdfunding success for fraudulent than for non-fraudulent campaigns. Model 7 shows that vocal attractiveness is more positively related to the success of fraudulent than of non-fraudulent campaigns, but it is not statistically significant (coefficient = 0.94, $p > 0.05$). These results fail to support H3b.

Overall, we observed that certain source credibility aspects (i.e., functional expertise, cognition-based trustworthiness, affect-based trustworthiness, and physical attractiveness) differentiated the success of fraudulent crowdfunding campaigns compared to non-fraudulent ones. Other aspects of source credibility failed to differentiate the effectiveness of each type of campaign (e.g., domain expertise and vocal attractiveness). Generally, the types of cues that proved to be differentiating factors favoring the success of fraudulent campaigns were inherently subjective: dimensions of trustworthiness and attractiveness. In contrast, those favoring the success of legitimate campaigns tended to be more objective: dimensions of expertise.

DISCUSSION

Our investigation of entrepreneurial fraud in crowdfunding demonstrates how unethical actors in crowdfunding can exploit the positive nature of crowdfunding. By highlighting this key dark side, our study aimed to redirect attention to a critical aspect that has often been overshadowed by the predominantly positive portrayal of crowdfunding in prior entrepreneurship research. While prior work emphasizes crowdfunding's potential to democratize entrepreneurial

finance, especially for underrepresented founders (Anglin et al., 2022), we direct attention to the risks that arise when apparently unethical campaign creators manipulate persuasive signals to gain funder trust. Such manipulations pose consequences for the legitimacy of crowdfunding as a mechanism for entrepreneurial resource acquisition (Allison et al., 2017), threatening trust in such platforms and in crowd-based participation more broadly.

Our findings demonstrate that not all credibility cues are equally effective across contexts of ethical versus unethical entrepreneurship. Cognition-based trustworthiness, affect-based trustworthiness, and physical attractiveness were more positively associated with campaign success in fraudulent campaigns, suggesting that deceptive actors disproportionately benefit from subjective cues that are affectively charged and difficult to verify. In contrast, functional expertise was significantly more effective in non-fraudulent campaigns. These results suggest that fraudulent campaigns appear more successful than their legitimate counterparts, not because of superior products or expertise, but due to strategic manipulation of surface-level credibility indicators.

Theoretical Contributions

This study contributes to the literature on business ethics and entrepreneurship in two important ways. First, it advances scholarly understanding of crowdfunding fraud as an emerging and significant phenomenon in the evolution of business ethics (Uriarte et al., 2025). Although fraud has long been recognized as a central concern in business ethics (Nikitkov et al., 2014), fraudulent behavior in the context of crowdfunding introduces novel challenges due to the digitally mediated, trust-dependent nature of these platforms. Fraud in this setting not only misleads individual funders but also threatens the broader legitimacy of crowdfunding as a mechanism for resource mobilization among early-stage ventures. Building on a phenomenon-

driven theorizing approach (Fisher et al., 2021), our study reveals how the persuasiveness of source credibility cues such as expertise, trustworthiness, and attractiveness varies depending on whether the actor is ethical or deceptive. By uncovering this asymmetry in credibility cue effectiveness, our study enhances our understanding of how different types of entrepreneurs strategically navigate moral boundaries in resource acquisition.

Second, our study challenges a prevalent, yet often implicit, assumption within the business ethics literature: that credibility cues are inherently and uniformly tied to ethical behavior and sound moral character (e.g., Caldwell et al., 2008). While much of the existing source credibility literature generally presumes that cues like trustworthiness and attractiveness are naturally interpreted as genuine signals of authenticity or benevolence, our findings, in contrast, depict a more intricate scenario. Our study shows that credibility cues that are often perceived by audiences as indicators of ethical stewardship and authentic intent can be strategically leveraged by unethical actors to simulate legitimacy. This distinction is important to business ethics because it reveals how identical cues that are assumed to reflect moral intent can be subverted for deceptive purposes, blurring the line between ethical entrepreneurship and fraud. By doing so, our study directly responds to recent calls in entrepreneurial fraud research to investigate how seemingly "light side" elements can be used in "dark" ways (Scheaf & Wood, 2022). In line with this point, our study demonstrates how ostensibly positive credibility cues can be leveraged for malicious purposes in entrepreneurial fraud. In these ways, our findings contribute insights for future studies of fraud in entrepreneurial finance, potentially reducing the exploitation of prospective funders.

Complementing our contributions to business ethics and entrepreneurship, our study also advances source credibility theory by introducing source characteristics (ethical vs. unethical) as

boundary conditions that shape the effectiveness of credibility cues in entrepreneurial settings. While prior research has predominantly theorized boundary conditions based on observer traits (e.g., gender, experience), our approach shows that the ethical status of the source moderates how different types of credibility cues (expertise vs. trustworthiness and attractiveness) influence crowdfunding success. This challenges the prevailing assumption that boundary conditions uniformly alter the effects of credibility cues and instead supports a contingency-based model that accounts for variation based on the source's ethical standing. By developing new theoretical perspectives rooted in real-world observations of crowdfunding fraud, our phenomenon-based theorizing not only expands how source credibility theory can be applied by demonstrating a contingency-based extension of the framework, but also enhances its practical applicability to entrepreneurial fraud and business ethics more broadly.

Practical Implications

The repercussions of entrepreneurial fraud on crowdfunding platforms extend beyond immediate financial losses; they encompass the potential harm inflicted on entrepreneurs due to the adverse effects on discouraged funders. This underscores the unique role of crowdfunding as a community-driven source of entrepreneurial capital. While some parallels exist in community-oriented funding outlets such as angel groups, the internet-based nature of crowdfunding platforms facilitates the creation and engagement of broader and more diverse communities dedicated to supporting entrepreneurs. The vitality of these communities becomes crucial for entrepreneurs, emphasizing the practical importance of detecting and reducing fraud on crowdfunding platforms. For platforms, we suggest implementing verified badges for entrepreneurs who have demonstrated success not only in fundraising but also in fulfilling promised rewards. These badges (e.g., a "Delivers on Time" badge) should be prominently

displayed on the campaign page to reduce the burden on funders to search creators' profiles. We also recommend that platforms incorporate educational prompts or tooltips to help funders recognize common signs of fraudulent campaigns (e.g., overreliance on emotional appeals without evidence of feasibility).

In addition, our results show that subjective credibility cues such as perceptions of trustworthiness and attractiveness appear to influence potential funders to support fraudulent campaigns that they might otherwise have avoided in the absence of such cues. In light of this point, we encourage funders to conduct basic verification checks, such as searching for the advertised product online to determine if it already exists or has been marketed under different names. In addition, we suggest that funders conduct at least some research into the backgrounds of entrepreneurs beyond the information presented in pitch videos, using verification processes such as those employed by other internet companies, including Twitter and Facebook. Actively participating in online communities dedicated to tracking instances of fraud can provide valuable insights, and cross-referencing records of rewards delivery can offer a practical means of assessing an entrepreneur's track record in running successful campaigns. By incorporating these objective cues into their due diligence process, potential funders can enhance their ability to make more informed and discerning decisions, thereby mitigating the risk of falling victim to fraudulent campaigns. Table 5 provides a summary of our recommendations.

[Insert Table 5 about here.]

Limitations and Implications for Future Research

While our study contributes to theoretical understanding and practical implications, it is essential to acknowledge its limitations, which, in turn, open avenues for future research. To begin, while providing a structured framework, our reliance on source credibility theory suggests

opportunities to explore other communication and persuasion theories (e.g., Anglin et al., 2020; McKenny et al., 2025). As demonstrated in our study, manipulating positive signals in a negative context hints at broader implications across various theoretical perspectives. This is particularly pertinent in the entrepreneurial finance literature, where frameworks like signaling theory, the elaboration likelihood model, and the emotions-as-social information model are prominent (e.g., Allison et al., 2017; Oo et al., 2024; Plummer et al., 2016; Warnick et al., 2021). Future research could delve into the potential misuse of positive signals for deceptive purposes, expanding the scope of these theories and uncovering conditions conducive to such manipulations. Addressing the assumption of sources as "good faith actors" in existing studies, as highlighted by Scheaf and Wood (2022), our study challenges this assumption and suggests that sources may not always communicate true signals. Future research endeavors could explore the conditions under which dishonest cues are utilized for personal gain. Drawing parallels with our conceptualization of objective versus subjective source cues, recent entrepreneurial financing research has examined the impact of costly vs. costless signals on funders' decision-making processes (e.g., Anglin et al., 2018; Di Pietro et al., 2023; Kleinert, 2023). We posit that fraudsters may be inclined to exploit costless signals to persuade funders. Therefore, future studies could investigate how the influence of these signals differs across fraudulent and non-fraudulent campaigns. Moreover, considering the emphasis in prior research on observers' characteristics as potential boundary conditions for source credibility, we encourage holistic investigations in future studies. Exploring the interplay between the characteristics of both sources and observers could offer a more comprehensive understanding of how the effects of credible cues are shaped. By doing so, researchers can further advance theory in this area and provide nuanced insights into the dynamics of persuasion in crowdfunding and entrepreneurial finance contexts.

Additionally, the exclusion of social proof in our study, focusing instead on perceived expertise, trustworthiness, and attractiveness as cues of credibility, presents a noteworthy limitation. Our study focuses on three widely accepted components of source credibility—expertise, trustworthiness, and attractiveness. However, we acknowledge that other factors, such as social proof, including indicators like the number of Facebook friends and shares, are prevalent in crowdfunding campaigns. Future research could explore the impact of social proof on perceived credibility and its potential role in differentiating genuine campaigns from fraudulent ones. Investigating how credibility cues interact with other demographic characteristics such as gender or race may also offer valuable insights into the dynamics of persuasive communication in crowdfunding contexts (cf. Davis et al., 2021). Expanding the scope of research, other less explored dimensions of credibility also warrant attention. As suggested by Ayeh et al. (2013) and Eisend (2006), attributes such as sociability or authoritativeness could be fruitful avenues for investigation. Additionally, perceived similarity between the source and target, leading to positive affect and liking, could be a promising cue of credibility. With Kickstarter no longer publicly sharing information regarding the funders of individual campaigns, experimental methods could be employed in future studies to explore other cues emerging from similarities between entrepreneurs and funders. Moreover, within the key credibility cues of expertise, trustworthiness, and attractiveness, there may be variations in their potency as indicators of fraud. For instance, individuals with a proven track record and expertise in both functional and domain experience might be less prone to fraudulent activities and could serve as predictors of non-fraudulent campaigns. Conversely, fraudsters might rely more on subjective cues, such as attractiveness. Although outside the scope of our current study, we encourage future research to delve into the antecedents of fraudulent campaigns in

crowdfunding and entrepreneurial pitches. Understanding the specific cues that differentiate between fraudulent and non-fraudulent campaigns can contribute valuable insights to the development of effective fraud detection and prevention strategies.

Next, our study encompassed various types of perceived scams in crowdfunding, ranging from unexpectedly reducing rewards to failing to deliver rewards and selling existing items as novel. We adopted this comprehensive approach for the sake of completeness, recognizing that relationships examined may differ with broader or narrower definitions of fraud. However, acknowledging the variability in funders' concerns across different types of fraud, future research could consider evaluating potential differences across specific kinds of fraudulent campaigns. Such an approach would enable a nuanced examination of whether different aspects of source credibility matter more or less across distinct types of fraud.

In addition, many funders may perceive campaign fraud as a violation of trust. Research on trust formation and studies on violation and trust repair (e.g., Schoorman et al., 2007) could serve as apt models for understanding how individual funders react upon discovering that a supported campaign was fraudulent. The challenge in identifying large enough samples for each form of fraud is acknowledged, but as cases of fraud continue to grow in tandem with the overall expansion of crowdfunding, future research may find it more feasible to conduct in-depth analyses of specific types of fraudulent activities. This would undoubtedly enhance our understanding of the nuanced dynamics of fraud in crowdfunding and contribute to the development of targeted strategies for prevention and mitigation.

Moreover, our findings are based on reward-based crowdfunding. We selected reward-based crowdfunding as our empirical context for several reasons. First, fraud is disproportionately identified and documented on reward-based platforms, particularly

Kickstarter, which accounts for the vast majority of high-profile crowdfunding fraud cases (Zafar, 2023). Second, equity-based crowdfunding platforms typically involve a much smaller number of funders per campaign, which may reduce the collective capacity to detect fraud. Moreover, the nature of fraud likely differs across platform types: reward-based campaigns are often characterized by source-related or product misrepresentation fraud (e.g., claiming to have invented a product sourced from a wholesaler), whereas equity-based campaigns are more likely to involve misstatements in financial disclosures, which may be less visible in a public campaign narrative. Third, donation-based crowdfunding lacks the built-in accountability mechanisms that reward-based campaigns possess (i.e., the requirement to deliver promised products). Because donation-based campaigns do not necessarily imply reciprocity, funders may have fewer expectations of delivery or verification, making fraud harder to detect and study in systematic ways. Taken together, these contextual differences support our focus on reward-based crowdfunding, where credibility cues are both highly consequential and observable. Nonetheless, future studies could explore whether our theorization holds in other crowdfunding types.

Lastly, we note that even within the context of rewards-based crowdfunding, the effects of subjective and objective credibility cues may vary across campaign categories and funder characteristics. For instance, in the technology category, where technical feasibility is paramount, objective cues like functional expertise could play a stronger role in non-fraudulent success. In contrast, campaigns in categories such as arts and crafts might amplify the persuasive power of subjective cues such as trustworthiness for fraudulent actors, as these often appeal to broader, mass-market audiences relying on emotional heuristics rather than verifiable details. Niche funder communities with specialized expertise (e.g., 3D technology, drones, and wearable devices) may be less susceptible to subjective manipulation compared to general crowds. Future

research could test these variations to enhance fraud detection strategies across diverse crowdfunding contexts.

CONCLUSION

Our study advances the theoretical proposition that credibility cues exert varying influences on crowdfunding performance between fraudulent and non-fraudulent campaigns. Our findings substantiate this view, demonstrating that perceptions of subjective cues are more positively related to the success of fraudulent campaigns, while objective cues show a more negative relationship compared to non-fraudulent campaigns. This highlights specific mechanisms through which crowdfunding can be effectively utilized for fraudulent purposes, thereby undermining the potential of such platforms as an outlet for supporting legitimate and productive entrepreneurial endeavors. The success of fraudulent crowdfunding not only harms the deceived funders but also has far-reaching consequences for entrepreneurs aiming to utilize crowdfunding for genuine, productive ventures. The erosion of trust in crowdfunding as a result of fraudulent activities diminishes its effectiveness as a valuable resource for startup capital. In light of these implications, our study suggests that reducing reliance on subjective cues of source credibility, as identified in our findings, could be instrumental in mitigating instances of fraud within the crowdfunding context. Overall, our results highlight that credibility cues do not operate uniformly but rather function differently depending on the legitimacy of the source.

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Table 1. Univariate Imbalance after Matching

Variables	L1	min	0.25	0.5	0.75	max
Campaign outcome	0	0	0	0	0	0
Campaign goal(log)	0.01	0	0	0	0	0.025

Note: Campaign category was also included in the matching.

Table 2. Descriptive Statistics for Fraudulent vs. Non-Fraudulent Campaigns

Variables	Campaign type	N	Mean	SD
Campaign outcome	Fraudulent	102	0.50	0.50
	Non-Fraudulent	102	0.50	0.50
Campaign goal(log)	Fraudulent	102	4.16	0.05
	Non-Fraudulent	102	4.16	0.06

Note: Campaign category was also included in the matching.

Table 3. Descriptive Statistics and Variable Intercorrelations

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Campaign success	.50	.50																					
2. Campaign goal	4.16	.54	-.13																				
3. Campaign duration	36.69	10.79	-.01	.09																			
4. Number of FAQ	2.86	4.70	.09	.17	.03																		
5. Gender	.81	.39	.05	.00	.02	.11																	
6. Ethnicity	.68	.47	-.08	.07	-.02	.07	.02																
7. Internal social capital	.60	.51	.31	.01	-.07	.19	.22	.13															
8. Product innovation	4.38	1.21	.41	.10	-.08	.14	.02	-.15	.26														
9. Pitch quality	4.93	1.13	.53	.10	-.05	.18	-.01	-.16	.30	.56													
10. Kickstarter featured	.12	.33	.16	.12	.04	.11	-.05	.04	.17	.16	.17												
11. Facebook connected	.31	.46	-.18	.15	-.08	-.08	-.03	.08	.04	-.04	-.11	-.02											
12. Word count	2.85	.40	.07	.34	.04	.11	.01	-.04	.21	.06	.21	.12	.10										
13. Image count	.39	.30	-.19	.16	.02	.03	.00	-.06	-.03	.12	.14	.07	-.02	.28									
14. External links	1.64	1.51	.09	.20	.02	.00	.00	.09	.22	.13	.23	.15	.11	.26	.08								
15. Collaborators	.32	1.09	.10	.07	.01	.22	-.12	-.15	.01	.17	.16	-.03	.00	.06	.07	.11							
16. Fraud	.50	.50	.00	.00	-.02	.24	.20	-.06	-.11	-.06	-.04	-.11	-.14	.00	.13	-.24	.17						
17. Domain expertise	.19	.39	.21	-.04	.01	.18	.07	.04	.27	.09	.27	.05	-.06	.13	.05	.17	.12	.16					
18. Functional expertise	.45	.50	.16	.05	.05	-.01	.08	.02	.15	-.09	.15	.20	.08	.08	.10	.22	.02	-.14	.14				
19. Cognition-based trustworthiness	5.11	1.11	.58	-.07	-.03	.13	.07	-.08	.33	.34	.59	.21	-.13	.15	-.01	.19	.03	-.15	.16	.15			
20. Affect-based trustworthiness	4.92	1.15	.47	-.13	-.08	.04	.03	-.16	.30	.29	.51	.18	-.11	.09	-.03	.13	.00	-.25	.12	.02	.83		
21. Physical attractiveness	4.64	.96	.36	-.14	-.07	.11	-.07	-.03	.19	.32	.53	.11	-.08	.07	.24	.05	.10	-.13	.14	.00	.59	.60	
22. Vocal attractiveness	4.67	.80	.41	.00	-.12	-.01	.03	.00	.25	.38	.47	.14	.03	.11	.10	.22	.04	-.27	.06	.04	.48	.45	.54

$N = 204$. Correlations with absolute value greater than 0.14 are significant at $p < 0.05$.

Table 4. Logistic Hierarchical Regression Models of Crowdfunding Campaign Success

DV- Crowdfunding Success (1/0)	Model 1		Model 2		Model 3		Model 4	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Controls								
Campaign goal (Log)	-1.26**	.43	-1.22**	.43	-1.39**	.45	-1.06*	.47
Campaign duration	.02	.02	.02	.02	.02	.02	.01	.02
Number of FAQ	-.02	.05	-.03	.05	-.01	.05	-.09	.06
Gender	.16	.52	.01	.54	-.30	.57	-.07	.56
Ethnicity	.03	.44	-.01	.44	-.07	.46	.00	.51
Internal social capital (Log)	.84†	.47	.86†	.48	.80	.51	.67	.52
Product innovation	.47*	.21	.48*	.21	.65**	.24	.54*	.26
Pitch quality	1.23*	.27	1.28**	.28	1.42**	.30	.89**	.32
Kickstarter featured	1.12	.71	1.26†	.73	.73	.84	.98	.75
Facebook connected	-.99*	.44	-.94*	.45	-1.09*	.48	-.86†	.49
Word count (Log)	.76	.54	.73	.55	.84	.56	.56	.65
Image count (Log)	-3.45**	1.07	-3.63**	1.12	-4.78**	1.28	-3.22**	1.07
External Links	-.13	.15	-.12	.15	-.14	.16	-.10	.18
Collaborators	.13	.20	.10	.20	.04	.19	.15	.23
Main Effects								
Fraud (F)			.46	.45	.31	.47	.90†	.53
Domain expertise (DE)			.24	.56				
Functional expertise (FE)					1.25*	.49		
Cognition-based trustworthiness (CT)							1.37**	.32
Affect-based trustworthiness (AT)								
Physical attractiveness (PA)								
Vocal attractiveness (VA)								
2-Way Interactions								
DE x F			-.25	1.05				
FE x F					-2.31*	.93		
CT x F							1.22*	.61
AT x F								
PA x F								
VA x F								
Chi-square	115.61**		117.07**		131.12**		145.67**	
-2 Log likelihood	167.20		165.74		151.68		137.13	
Cox & Snell R Square	.43		.44		.47		.51	
Nagelkerke R Square	.58		.58		.63		.68	

N = 204; † $p < .10$, * $p < .05$; ** $p < .01$

Table 4. (Continued)

DV- Crowdfunding Success (1/0)	Model 5		Model 6		Model 7		Model 8	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Controls								
Campaign goal (Log)	-.96*	.45	-1.22*	.47	-1.14*	.43	-1.40*	.62
Campaign duration	.01	.02	.01	.02	.02	.02	-.03	.03
Number of FAQ	-.04	.06	-.07	.05	-.02	.05	-.11	.10
Gender	-.06	.54	.12	.58	-.12	.59	-.99	.71
Ethnicity	.12	.47	-.41	.49	-.19	.47	-1.5*	.72
Internal social capital (Log)	.703	.49	1.05*	.50	1.05*	.50	1.03	.70
Product innovation	.44†	.24	.42†	.23	.26	.23	.79*	.37
Pitch quality	1.11**	.30	1.20**	.30	1.21*	.29	1.09*	.45
Kickstarter featured	1.01	.71	1.37†	.78	1.42†	.79	.62	1.21
Facebook connected	-.77†	.46	-.93*	.46	-1.21*	.49	-1.72*	.70
Word count (Log)	.56	.61	.80	.64	.65	.57	.76	.82
Image count (Log)	-3.26**	1.06	-4.45**	1.17	-4.00**	1.10	-7.00**	1.85
External Links	-.12	.15	-.09	.16	-.14	.17	-.25	.25
Collaborators	.13	.21	.03	.21	.15	.28	-.15	.30
Main Effects								
Fraud (F)	.80	.51	.85†	.50	.98†	.51	1.79*	.90
Domain expertise (DE)							.29	.98
Functional expertise (FE)							1.51*	.75
Cognition-based trustworthiness (CT)							2.65**	.77
Affect-based trustworthiness (AT)	.62**	.24					-.97†	.54
Physical attractiveness (PA)			.85**	.31			.42	.45
Vocal attractiveness (VA)					1.11**	.32	1.46**	.50
2-Way Interactions								
DE x F							-1.35	1.81
FE x F							-2.28†	1.32
CT x F							1.09	1.23
AT x F	.94*	.46					.26	.92
PA x F			1.60*	.62			2.06*	.98
VA x F					.94	.62	1.66	1.06
Chi-square	128.11**		129.67**		131.33**		184.06**	
-2 Log likelihood	154.70		153.13		151.48		98.74	
Cox & Snell R Square	.47		.47		.48		.59	
Nagelkerke R Square	.62		.63		.63		.79	

$N = 204$; † $p < .10$, * $p < .05$; ** $p < .01$

Table 5. A Summary of Recommendations for Practitioners

Stakeholder	Recommendation
Platforms	Develop a transparency system that combines verified badges (e.g., "Delivers on Time") with a composite credibility score integrating update frequency, delivery record, and third-party verification, displayed prominently on campaign pages.
	Add educational prompts or tooltips highlighting potential risks.
	Use artificial intelligence (AI) and machine learning (ML) tools to flag campaigns that rely heavily on subjective cues without verifiable details.
	Encourage entrepreneurs to provide objective indicators of expertise through standardized profile fields.
Funders	Seek third-party validation, such as media coverage, professional endorsements, and prior product reviews that can corroborate campaign claims.
	Be cautious of campaigns that rely heavily on emotional persuasion or visual attractiveness without offering concrete, verifiable expertise.
	Evaluate multiple campaigns side by side to spot exaggerated claims or unusual reliance on subjective cues that stand out in comparison.
	Consider using staged contributions by pledging smaller amounts initially and increasing support only after entrepreneurs provide updates or evidence of progress.

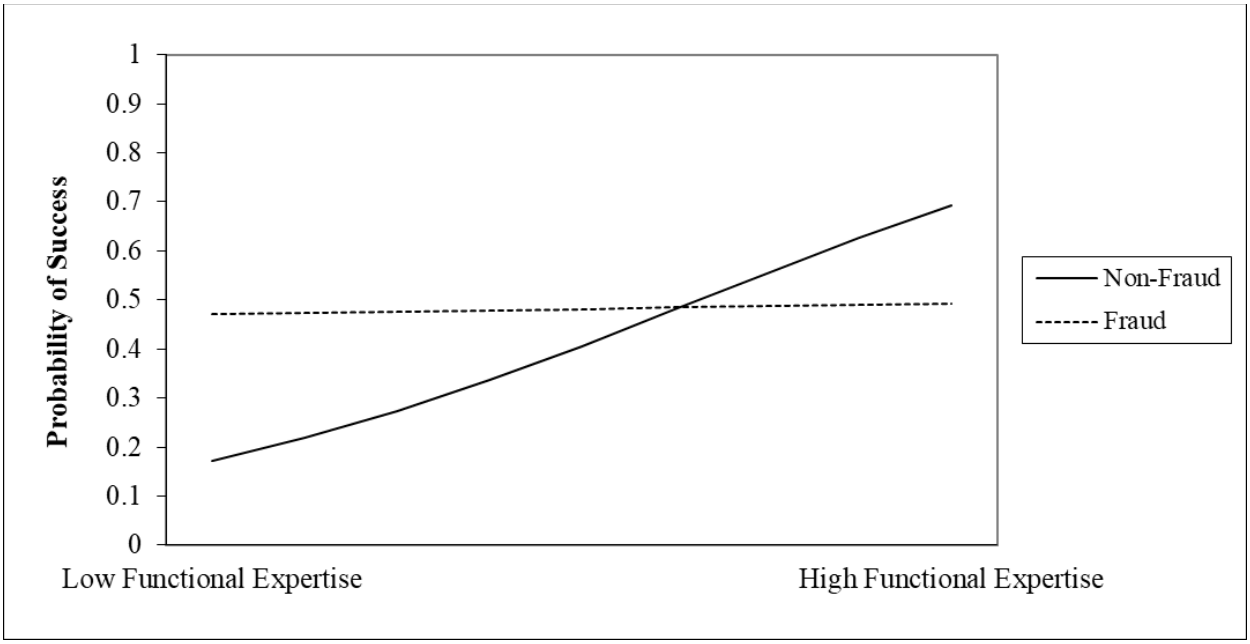

Figure 1. Interactions of Fraud Versus Non-Fraud Campaigns with Functional Experience on Probability of Crowdfunding Campaign Success

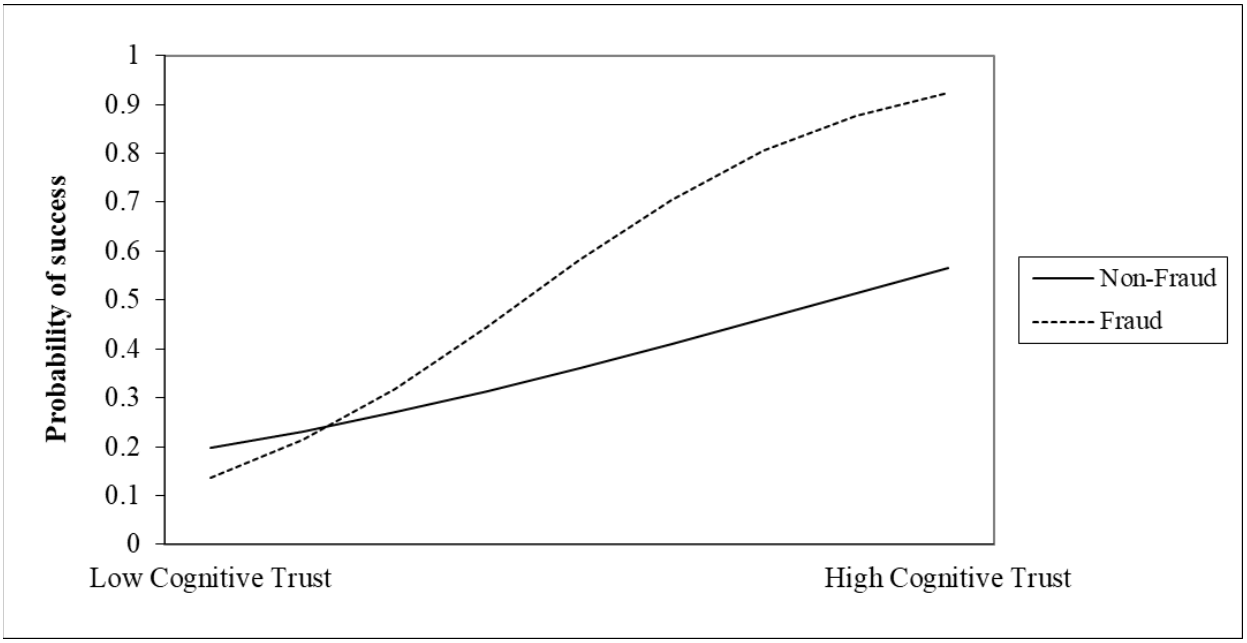

Figure 2. Interactions of Fraud Versus Non-Fraud Campaigns with Cognitive Trust on Probability of Crowdfunding Campaign Success

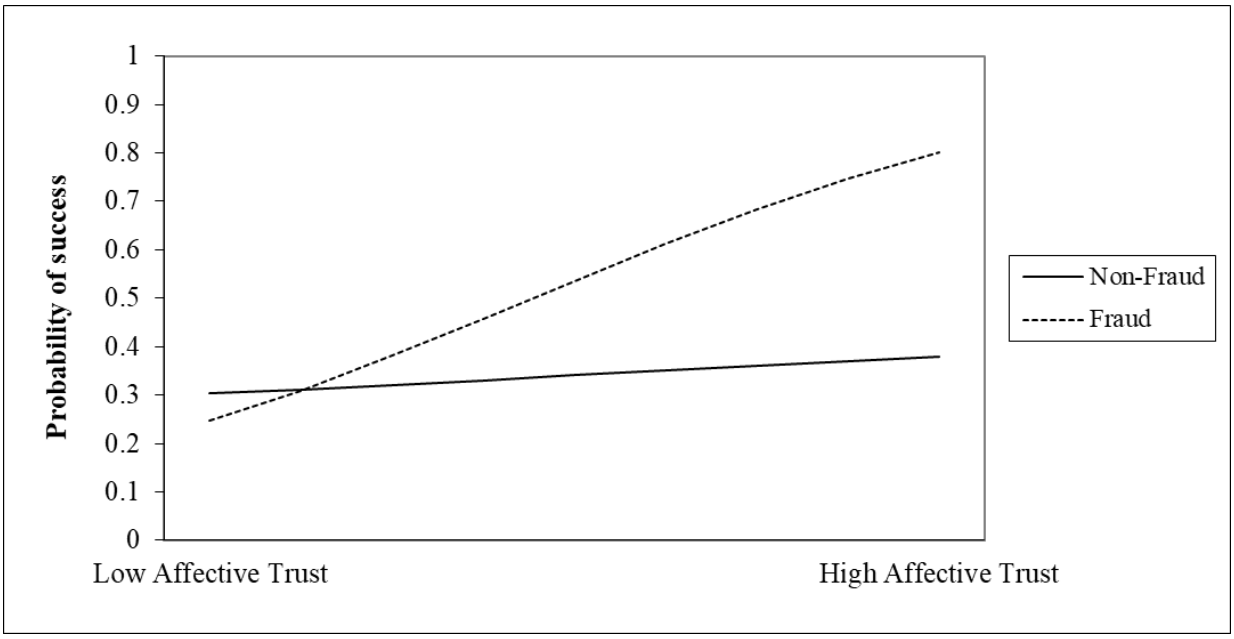

Figure 3. Interactions of Fraud Versus Non-Fraud Campaigns with Affective Trust on Probability of Crowdfunding Campaign Success

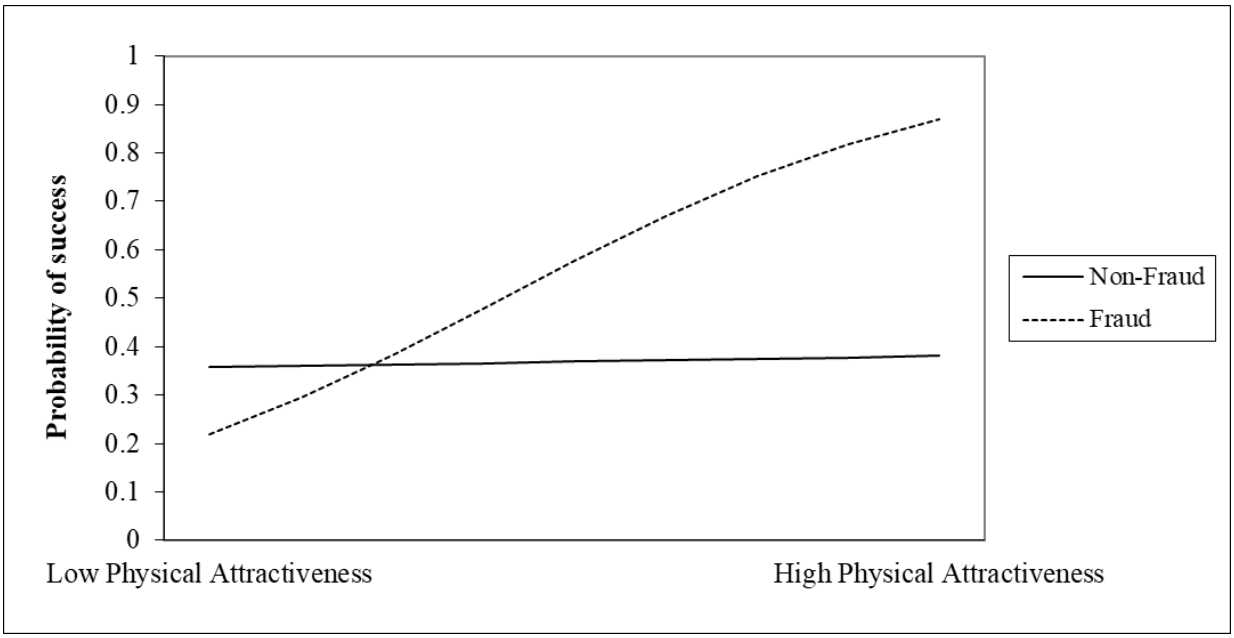

Figure 4. Interactions of Fraud Versus Non-Fraud Campaigns with Physical Attractiveness on Probability of Crowdfunding Campaign Success