Crowd Reactions to Entrepreneurial Failure in Rewards-Based Crowdfunding: A Psychological Contract Theory Perspective

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Abstract: Rewards-based crowdfunding (RBC) has recently gained popularity as an alternative means of finance to help entrepreneurs bring novel projects to life. We theorize that crowdfunding backers perceive an implicit psychological contract with campaign creators. When promised rewards fail to materialize post fundraising, backers may perceive entrepreneurs’ failure to deliver rewards as a violation of their psychological contract with him or her. Drawing on psychological contract theory and using Eisenhardt’s comparative case methodology, we generate insights about crowd reactions to creators’ failure to deliver rewards to backers. Our research generates the novel insight that in the event of delivery failure, backers who perceive a transactional psychological contract with creators are more likely to display negative emotional reactions, while backers who perceive a relational psychological contract are more likely to display positive emotional reactions. Furthermore, we identify three progressive stages of backers’ interaction with creators in failed RBC campaigns, ‘committing’, ‘crisis handling’, and ‘coping-up’ and highlight the crowds’ emotional valence associated with each stage. Our analyses of the campaign comments reveal insights of interest to RBC players and hold implications for the future development of crowdfunding.

Keywords: crowdfunding; emotional valence; entrepreneurial failure; failure to deliver rewards; Kickstarter.com; psychological contract theory; rewards-based crowdfunding

1. Introduction

Crowdfunding is an innovative means of raising early-stage entrepreneurial funding to help entrepreneurs bring projects to life, raising small contributions from numerous supporters through digital platforms (Ahlers et al. 2015; Mollick 2014). It has emerged as a compelling alternative to traditional sources of finance (Block et al. 2018), growing from a USD 2 billion market in the year 2011 (Cumming et al. 2017) to USD 13.9 billion in the year 2019, and is expected to cross the USD 40 billion mark by the year 2026 (Statista 2020). Crowdfunding is one of the “most active and fastest-growing research areas in entrepreneurial finance” (Cumming and Johan 2017, p. 366) and is often hailed for its role in filling the funding gap for early-stage entrepreneurs (Moritz and Block 2016). The launch of rewards-based crowdfunding (RBC) platforms such as Kickstarter has helped campaign-creators bring novel ‘projects to life’ by affording them an opportunity to engage with many backers. RBC ‘backers’, or ‘funders’, pledge their contributions to campaigns amidst an uncertain environment characterized by a nascent regulatory environment. Unlike professional investors, RBC backers lack the ability as well as the inclination to engage in due diligence before pledging their contribution to a campaign (Agrawal et al. 2014). Inadequate regulatory oversight, limited platform protection, and a lack of due diligence by backers exacerbate the potential of misconduct by creators on RBC platforms. Suspected fraudulent creator activity looms large on backers (Cumming et al. 2021), and up to 75% of
campaigns are delayed in the fulfillment of rewards (Mollick 2014). Consequently, backers remain concerned that the campaign creators may not utilize their contribution judiciously (Kang et al. 2016) and may fail to deliver the promised rewards (Xu and Ni 2021).

RBC involves an asymmetrical information environment wherein the project creators have more information about potential risks as compared with the supporters (Agrawal et al. 2014). Consequently, backers face higher uncertainty and risk as compared with investors in traditional avenues of entrepreneurial financing (Piva and Rossi-Lamastra 2018). When backers do not receive the promised rewards, they are likely to express their opinions and emotions in the course of their digital interaction with the campaign creator and fellow funders through comments activity on crowdfunding platforms (Courtney et al. 2017). Past research has highlighted how the interaction between creators and backers on RBC platforms is instrumental in generating trust between these two parties (Zheng et al. 2016). Backers have also been known to impose control on campaign creators and other backers through their digital interaction (Gleasure et al. 2019). We probe the emotional valence underlying backer comments by adopting Eishenhardt’s comparative case method to analyze seven campaigns where the campaign creator failed to deliver promised rewards. Drawing on psychological contract theory, we formulate propositions to gain deeper insights into the crowd’s behavior towards entrepreneurs in RBC and propose a framework highlighting stages of backer-creator interaction when creators fail to deliver rewards.

We make three primary contributions to crowdfunding literature. First, we contribute to the investigation of crowd emotions and behavior in crowdfunding. Researchers have lamented that although the behavior of the crowd is central to the crowdfunding phenomenon (Alhammad et al. 2022), it remains understudied (McKenny et al. 2017; Pollack et al. 2021). We probe the rationale behind the behavior of the crowd by deriving insights from their expressed emotions. While emotions embedded in creators’ pitches have received some attention (for a recent example, see Allison et al. 2022), backers’ emotional valence remains largely overlooked in the literature. Our study contributes to the nascent stream of literature investigating investor emotions in the context of crowdfunding (e.g., Fairchild et al. 2017; Shafi and Mohammadi 2020; Wuillaume et al. 2019; Qi et al. 2020).

Second, we strive to contribute to the nascent stream of literature on the outcomes beyond campaign-funding in crowdfunding (for an example, refer to Viotto da Cruz 2018). Since the negative effects of project failure on the crowdfunding industry are far reaching (Seyb 2022), our focus on creators’ failure to deliver rewards probes an important area of concern which remains understudied in the extant crowdfunding literature. Although backer and creator interaction has garnered some attention (Wang et al. 2022), the predominant focus of the literature is on predicting campaign success (Shneor and Vik 2020) rather than on entrepreneurial failure to meet commitments to the crowd, as is the case for our investigation here.

Third, we address a dearth of theoretical grounding in the crowdfunding literature by adopting a psychological lens to explore backer reactions to creator failure in RBC (McKenny et al. 2017). Since regulatory mechanisms in RBC are still at a nascent stage, backers often do not have any viable legal recourse when they fail to receive promised rewards. We pursue psychological contract theory to analyze the emotional valence of backers’ displayed emotions in cases when creators fail to deliver rewards. Notably, psychological contract theory has often been leveraged in the context of human resource management in organizational settings (e.g., Turnley et al. 2003) and is underexplored in entrepreneurial finance contexts (such as crowdfunding). Overall, our study contributes to deepening theoretical understanding of crowdfunding as well as to exploring psychological contract theory in uncharted entrepreneurial finance contexts.

2. Rewards-Based Crowdfunding and Creators’ Failure to Deliver Rewards

In RBC campaigns, supporters (known as ‘backers,’ ‘funders,’ ‘investors’, or simply, ‘the crowd’) pledge their contribution in support of the campaign, and the entrepreneur (known as the ‘creator’) delivers the promised rewards. Rewards may range widely from a
simple acknowledgment by the creator (e.g., a thank-you e-mail) to a sophisticated product (e.g., a bio-engineered plant). RBC tends to attract amateur backers (Davis et al. 2017), who are driven by extrinsic motivations (e.g., obtaining rewards) and/or intrinsic motivations (e.g., support a cause, help others) to participate in RBC (Gerber and Hui 2016). Although it is difficult for creators to overcome uncertainty related to the delivery of rewards on RBC platforms (Hauge and Chimahusky 2016), backers contribute funds based on their trust that creators have the intention and the ability to deliver the rewards promised in the campaign (Liang et al. 2019). However, backers often lack the inclination and the ability to conduct due diligence before contributing to RBC campaigns. Unsurprisingly, up to 75% of RBC campaigns are delayed in fulfilling rewards to their backers (Mollick 2014).

Several factors may contribute to entrepreneurs’ failure to deliver rewards in a timely manner in RBC (see Figure 1). Since RBC is a source of early-stage finance, most creators are inexperienced entrepreneurs (Frydrych et al. 2014). Hence, they are unable to accurately estimate the time, cost and resource requirements to execute the project and deliver the rewards on time. Further, the crowd’s inability and lack of willingness to do due diligence and insufficient regulatory oversight in RBC aggravate the risk that sub-optimal projects may get funded. In addition, creators feel the pressure to fulfill the promised rewards to their backers within a limited timeframe (Mollick 2014). Even after the campaign is successfully funded, the creators are not directly supervised by its backers, the platform, or any regulatory authority, creating a risk for the misappropriation of cost or effort by creators. Creators may also face challenges in the course of product development (e.g., technological issues) causing inadvertent delays. Nonetheless, backers risk losing their pledged contribution regardless of the reason for the delay. Further, backers may feel deceived when a project does not unfold as planned (Pepitone 2012) regardless of whether creators operate with fraudulent intent or fail due to incompetence.

Prior research has shown that some creators behave fraudulently due to a lack of strong regulatory mechanisms (Cumming et al. 2021). However, in suspected fraud cases, there is ambiguity in ascertaining and verifying whether the creators are acting with fraudulent intent or their actions are a mere reflection of their incompetence. Hence, we define the scope of our study broadly to include cases of entrepreneurial failure rather than restricting the scope to cases of suspected fraud in RBC. Further, our choice of crowdfunding model is informed by findings of prior research that “when asymmetric information is important, high-quality projects prefer reward-based crowdfunding” (Miglo and Miglo 2019, p. 51).

Figure 1. An overview of factors that contribute to creators’ failure to deliver rewards to backers in rewards-based crowdfunding.
Since information asymmetry plays a significant role in entrepreneurial failure in RBC, such campaigns provide the appropriate context for our study. Specifically, we consider RBC campaigns that successfully raise the target goal set by the creator but fail to fully deliver expected rewards to their backers (see Figure 2). Thus, the campaigns selected in our sample enjoy campaign-funding success but suffer subsequent project failure. We consider an RBC project to have ‘failed’ when either of the conditions is satisfied: a. backers do not get promised rewards after contributing to the campaign, or, b. backers receive the reward but it fails to meet reasonable expectations of backers (Mollick 2015).

![Figure 2. An overview of project and funding outcomes on Kickstarter.](image)

### 2.1. Contracts between Creators and Backers

Creators and backers enter into a contract when transacting through platforms such as Kickstarter.com. Yet, since RBC takes place in a nascent regulatory regime, backers often have no legal recourse when creators fail to deliver rewards (McKenny et al. 2017). In the absence of robust governance oversight, backers may not be able to rely on such explicit contracts, and consequently, may act in accordance with the tacit understanding of their association with the entrepreneur. Put differently, once the creator and the backer become exchange partners, their reciprocity creates an ‘implicit contract’ in RBC. The term ‘contract’ has multiple implications in the context of entrepreneurs and resource providers. In Table 1, we compare two prominent lenses to study implicit contracts and assess their adequateness to investigate ‘implicit contracts’ that backers may perceive with entrepreneurs. Adopting an economic lens, crowdfunding actors may be viewed as parties to an agency contract wherein the backer is the principal and the entrepreneur is the agent. Agency costs (e.g., inefficiencies) may arise when entrepreneurs are not adequately incentivized to act in the interest of backers (Strausz 2017; Wang and Zhou 2004). Since an agency contract draws from an economic lens, it is not well suited to understand the emotional valence of backers per se. However, it serves as a useful lens to expound the underlying risk factors faced by investors in RBC. For example, the negative emotions of backers can be related to the risk of experiencing campaign failure costs and not being able to receive the promised rewards. A psychological contract, on the other hand, refers to the promissory expectations in a working relationship (Aggarwal and Bhargava 2009).
Table 1. Overview of two prominent theoretical lenses to investigate implicit contracts in entrepreneurial failures to deliver in rewards-based crowdfunding.

<table>
<thead>
<tr>
<th>Implicit Contract Type</th>
<th>Agency Contract</th>
<th>Psychological Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying Discipline</td>
<td>Economics</td>
<td>Psychology</td>
</tr>
<tr>
<td>Theoretical Focus</td>
<td>Agency issues in principal and agent relationship.</td>
<td>Perceived mutual obligations between two parties.</td>
</tr>
<tr>
<td>Advantages</td>
<td>Agency contracts may provide insights into agency issues that surface between creators and backers (e.g., lack of adequate effort by the creator to deliver rewards to backers).</td>
<td>A psychological lens is appropriate for investigating the non-delivery of rewards as a violation of the implicit psychological contract with the project creator.</td>
</tr>
<tr>
<td>Limitations</td>
<td>Agency contracts may not afford the appropriate context to investigate backers’ emotional valence, as economics research lenses do not lend themselves to investigations of the emotions of individuals.</td>
<td>Psychological contract theory does not adequately address the financial consequences of the emotional behavior of crowd.</td>
</tr>
</tbody>
</table>

Besides these two lenses, some scholars have adopted a behavioral finance lens (Hirshleifer 2015) to investigate issues related to decision making and to explain the nature of organizations, groups, or individuals (Aljuhani and Shaheen 2021). Arguably, the crowd’s emotional behavior may have critical financial implications. For instance, Qi et al. (2020) provides an interesting analysis of the impact of emotions on campaign financing. Similarly, the emotional behavior of the crowd when failing to receive rewards may have implications for the crowd’s future investment intention. Prior research has also leveraged a behavioral finance lens to study psychological aspects in the context of crowdfunding. For example, Miglo (2021) assumes a behavioral finance lens to explore which crowdfunding variants are better suited for overconfident entrepreneurs, and Fairchild et al. (2017) study the emotional excitement of investors when participating in crowdfunding.

Both the lenses considered have their merits and may be employed to study implicit contracts in situations of an entrepreneurial failure to deliver rewards in crowdfunding (refer to discussion in Table 1). However, we deem psychological contract theory as an appropriate theoretical framework for our study since it is particularly well suited for exploring emotional reactions of investors. Entrepreneurial failure is known to elicit new behaviors and thoughts and stir emotions (Shepherd et al. 2009). Furthermore, a perceived violation of a psychological contract is a known antecedent of emotional reactions (Rousseau 1998). Notably, scholars have identified psychological contract theory as a potentially rich theoretical framework to advance crowdfunding research (McKenny et al. 2017; Shneor and Vik 2020). Since our study is grounded in crowdfunding—an entrepreneurial financial context—psychological factors related to the crowd (including their emotional behavior) has implications for the financial decision making (e.g., investment intention) of the crowd. Thus, we remain cognizant of the usefulness of adopting a behavioral finance lens to construe the implications of the findings of our study (refer to the discussion section). Furthermore, although agency contracts may not be best suited to investigate individual backers’ emotional valence, nonetheless, they may be useful while drawing inferences about risk factors germane to crowd-funders (refer to the results section).

2.2. Psychological Contract between Creators and Backers

We refer to the backers’ perception of a mutual understanding of obligations between creators and backers as the ‘psychological contract’ in a RBC campaign. Prior scholars have identified three primary types of psychological contracts, namely, relational, balanced, and transactional, that form between the interacting parties (Bal et al. 2013). A relational
contract is a long-term arrangement based on mutual trust, loyalty, and implicit emotional attachment, where contingency rewards are not specified (Bari and Fanchen 2017). A balanced contract is also a long-term arrangement but is more dynamic, where rewards depend on individual and mutual performance and economic success (Robinson et al. 1994). Lastly, transactional contracts form when the arrangement is short-term and mainly focused on economic exchange. The psychological contract between a creator and backer on the crowdfunding platforms is based on the belief that mutually agreed upon obligations exist between the parties. Curiously, psychological contracts are idiosyncratic in nature, such that different people may form different psychological contracts under similar circumstances (Aggarwal and Bhargava 2009). In the crowdfunding context, prior research suggests that backers tend to perceive relational or transactional psychological contracts with creators (Macari and Guo 2021). Macari and Guo (2021) propose that backers who are bound by a relational or a balanced contract do not perceive the non-delivery of rewards as a violation of the perceived obligations arising out of the psychological contract and are driven by intrinsic motivations. By corollary, they posit that when backers form a transactional contract with the creator, non-delivery of rewards is likely to be perceived as a violation of the contract, and such backers are driven by extrinsic motivations. We use the term violation to refer to the scenario when backers react to creators’ actions which are perceived as a breach of backers’ psychological contract (Zhao et al. 2007). Put another way, backers react emotionally when they perceive that the rewards (explicitly or tacitly) promised to them by the campaign creator were not delivered.

Our study focuses on backers’ emotional responses in campaigns where the creator fails to deliver rewards. Prior research finds that unmet obligations arising from a perceived violation of a psychological contract “generate intense and negative reaction” (Rousseau 1998, p. 669). Since attributions people make to an event determine their response to it (Dweck and Leggett 1988), negative emotional valence in backer comments may be ascribed to a perceived violation of the psychological contract. On the other hand, positive emotional valence may indicate that backers do not perceive the psychological contract to be violated even though the campaign creator failed to deliver rewards. Although the display of negative emotions when backers do not receive rewards is expected, the display of positive emotions in this scenario is intriguing as it indicates the proclivity of the backers to support entrepreneurs even when the crowdfunding outcome is to their detriment. We adopt a nuanced understanding of the emotional valence of the backers that is triggered when creators fail to deliver rewards. Considering the effect of the psychological contract the backer perceives to enter into with the creator, we formulate the following propositions:

**Proposition 1.** Backers, who perceive a transactional psychological contract with the campaign creator are likely to display negative emotional valence when creators fail to deliver promised rewards.

**Proposition 2.** Backers, who perceive a relational or balanced psychological contract with the campaign creator are likely to display positive emotional valence when creators fail to deliver promised rewards.

Figure 3 presents our research framework depicting the effect of the creators’ failure to deliver rewards on backers’ emotional valence in rewards-based crowdfunding.

To probe the emotional reactions of backers who did not receive their rewards as per the creators’ commitment, we leverage digital interactions between creators and backers on Kickstarter (refer to the methods section for details). Our analysis of emotional valence embedded in backer comments (indicating prevalence of negative and positive affects) affords a peek into the underlying motivation of the crowd in RBC.
Figure 3 presents our research framework depicting the impact of creators’ failure to deliver rewards on backers’ emotional valence in rewards-based crowdfunding.

3. Methods

3.1. Case Selection

To assess the emotional valence of backers in cases where creators fail to deliver rewards in RBC, we adopted a case-based approach for our study. We considered a theoretical sampling of cases where the creator fails to deliver promised rewards using the ‘Eisenhardt Method’ (Eisenhardt 2021). We chose a variety of Kickstarter campaigns that are particularly suitable for illuminating the landscape of emotional valence that backers express when they do not receive their rewards, even after several promises made by the creator (Eisenhardt and Graebner 2007). Following prior research (Cumming et al. 2021), we considered all suspected fraud Kickstarter campaigns as reported on Kickscammed.com where the creator fails to deliver rewards. Furthermore, we used three-pronged criteria to choose the cases for our investigation. First, we preferred cases where the ratio of the number of comments to the total number of backers is more than one, as an overall high volume of comments is indicative of an active community of backers. An active community of backers has positive implications for campaign success and the quality of the project (Petruzzelli et al. 2019), allowing us to choose high-quality projects. Second, we gave preference to cases where full information on creators’ updates is available on Kickstarter, as this criterion allows us to conduct a fine-grained analysis of the nuances of emotional valence in embedded in backer comments. Third, we selected cases among campaigns launched on Kickstarter before 18 October 2014, when Kickstarter updated the ‘terms of use’ for launched projects. Since Kickstarter’s ‘terms of use’ determine the role(s) and expectation(s) of creators and backers, they play an important role in formulating the psychological contract of backers with the creators. Thus, to ensure the homogeneity of the terms of use for all campaigns, we refrained from choosing any campaign launched after Kickstarter changed its terms of use.

Further, following Cumming et al. (2021), we supplemented our case selection with two suspected fraudulent RBC campaigns in the media, namely the ‘Glowing Plant’ and the ‘Coolest Cooler’ (refer to Table 2), wherein the creator failed to deliver promised rewards. We added these two cases highlighted in media outlets to our analysis on the basis of the overall interest generated in the cases by media reports and the richness of backer interactions, as evidenced by a large number of backer comments. Altogether, we selected seven cases of Kickstarter campaigns for our analysis.
<table>
<thead>
<tr>
<th>Campaign Name</th>
<th>Launch Date</th>
<th>Product Category</th>
<th>Campaign Description on Kickstarter.com</th>
<th>Funds Raised (USD)</th>
<th>Total Comments</th>
<th>Total Backers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glowing Plants: Natural Lighting with no Electricity</td>
<td>April 2013</td>
<td>Technology</td>
<td>Create glowing plants using synthetic biology and Genome Compiler’s software—the first step in creating sustainable natural lighting.</td>
<td>484,013</td>
<td>1367</td>
<td>8433</td>
</tr>
<tr>
<td>Coolest Cooler 21st Century Cooler that’s Actually Cooler</td>
<td>July 2014</td>
<td>Product Design</td>
<td>The coolest is a portable party disguised as a cooler, bringing blended drinks, music and fun to any outdoor occasion.</td>
<td>13,285,226</td>
<td>22,263</td>
<td>62,642</td>
</tr>
<tr>
<td>HOT Watch: Complete Smart Watch w/Revolutionary Private Calls</td>
<td>July 2013</td>
<td>Design</td>
<td>HOT Watch™: Turn your hand into a phone with innovative private calling. Touch screen, Gestures, Apps. Phone stays in a pocket or bag.</td>
<td>616,231</td>
<td>13,546</td>
<td>4141</td>
</tr>
<tr>
<td>vrAse: The Smartphone Virtual Reality Case</td>
<td>August 2013</td>
<td>Product Design</td>
<td>Turn your Smartphone into the ultimate device for Movies, Games and Augmented Reality. Huge 3D screen, everywhere and hands-free.</td>
<td>106,333</td>
<td>2442</td>
<td>782</td>
</tr>
<tr>
<td>Vertus—Spread the Music Without Wires</td>
<td>April 2013</td>
<td>Product Design</td>
<td>Sending audio to two speakers via Bluetooth is now possible (Bluetooth receivers that can also add Bluetooth to any speaker).</td>
<td>68,431</td>
<td>1660</td>
<td>1079</td>
</tr>
<tr>
<td>Radiate Athletics: The Future of Sports Apparel</td>
<td>March 2013</td>
<td>Technology</td>
<td>No sweat: advanced workout shirt changes color according to your body heat, revealing muscular/vascular action while keeping you dry.</td>
<td>579,599</td>
<td>10,947</td>
<td>4391</td>
</tr>
</tbody>
</table>

3.2. Data Collection

We obtained archival data related to the chosen campaigns from Kickstarter.com utilizing data scraping techniques with the Python programming language and Selenium, an open-source tool for browser automation. We collected all campaign-related information publicly available on Kickstarter.com, focusing on capturing backer and creator interactions, including backer comments and creator updates.

3.3. Tools for Data Analysis

We utilized linguistic inquiry and word count (LIWC) to count the number of positive words (POSEMO dictionary) and negative words (NEGAMO dictionary) in each backer comment using a list of 7630 words classified as positive or negative by human readers (Pennebaker et al. 2007). LIWC is a lexicon-based textual analysis tool popularly used in
social psychology research. We use the ‘POSEMO’ and ‘NEGAMO’ dictionaries in LIWC to decipher emotional valence in backer’s comments. LIWC subdivides negative emotions in its ‘NEGAMO’ dictionary into three subcategories: ‘anger’, ‘anxiety’, and ‘sadness’, which are often described as basic or universal emotions and have been validated by prior studies. Prior research has found that negative emotions are better distinguished from one another than positive emotions (Tausczik and Pennebaker 2010). Due to the challenges associated with accurately categorizing positive emotions without human involvement, LIWC does not further divide positive emotions in the ‘POSEMO’ dictionary into subcategories of positive emotions. Thus, while using LIWC, we focus on identifying nuances of negative emotions. In contrast, we consider positive emotions as a whole in the analysis of digital interaction in the selected campaigns.

4. Results

4.1. Analysis of Emotional Valence Displayed in Backers’ Comments

We visually mapped backer comments to examine the interaction between the creator and backers in the context of RBC (Langley 1999). Visual mapping allows us to meaningfully interpret the emotions of the backers with the passage of time in the course of backers’ interactions with the creator. Table 2 presents an overview of the cases selected, including a short description of the campaigns, the product category as per Kickstarter, the total funding raised by the campaign, and the number of backers. Notably, all the cases in our study involve a tangible product as the project outcome and belong either to technology or design, two of the most popular categories on Kickstarter.

Positive Emotional Valence Displayed in Backers’ Comments

Table 3 presents a summary of selected quotes of a positive valence in backers’ comments in RBC projects which failed to deliver rewards. We analyzed backer comments to decipher the underlying emotions embedded in their comments.

Our analysis of selected positive backer comments in failure cases reveals that the backers frequently convey ‘hope’ and ‘encouragement’ in their comments. Interestingly, irrespective of whether they anticipate the project outcome to be positive or negative, backers who express positive valence tend to trust creators and frequently say so explicitly in their comments. Prior research suggests that backers’ perception of creators’ trustworthiness plays a more critical role in fundraising decisions than backers’ perception of the creator’s competence (Johnson et al. 2018). We suggest that comments that display positive valence, even in the face of delays in reward delivery, indicate a relational or balanced psychological contract. Furthermore, our analysis also suggests that the positive emotion displayed in backer comments often includes words indicating support for a cause and help to others (Gerber and Hui 2016). Our analysis of the selected backer comments displaying positive valence contributes to the veracity of Proposition 2, which states that backers who perceive a balanced or relational psychological contract with the creator tend to display positive emotions even when creators fail to deliver promised rewards.
Table 3. An analysis of backers’ comments expressing positive valence in failed RBC projects on Kickstarter (selected quotes).

<table>
<thead>
<tr>
<th>Campaign Name</th>
<th>Backer Comments on Kickstarter Campaign Page</th>
<th>Anticipated Project Outcome</th>
<th>Perception of Creator’s Trustworthiness</th>
<th>Emotion(s) Expressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Glowing Plants: Natural Lighting with no Electricity</strong></td>
<td>“To be completely honest, simply following this project was worth the $40 or whatever it was I pledged to it. The informative updates. The excitement of seeing new levels of brightness achieved. The fact of the matter is I knew from the beginning that it was a long shot. This to me is really what kickstarter should be about. Instead it’s become a store, and we know it’s a store now days. We know it’s a place that companies use so people can pre-order stuff. It should be a place for bleeding edge research on things that might fail. Those of us that pledge do so knowing that it might fail. There is a massive difference between this project, and projects in which the creators do the “take your money and run”.”</td>
<td>Negative</td>
<td>Expresses trust in the creator</td>
<td>Excitement; Supports a cause</td>
</tr>
<tr>
<td><strong>Coolest Cooler: 21st Century Cooler that’s Actually Cooler</strong></td>
<td>“Scum? It’s not as if they spent the money on drugs and cars. They didn’t scam people, they failed as a business. They didn’t stop taking orders and couldn’t bring 60,000 products to the market in such a small amount of time”</td>
<td>Negative</td>
<td>Expresses trust in the creator</td>
<td>Surprise; Defends and supports the creator</td>
</tr>
<tr>
<td><strong>HOT Watch: Complete Smart Watch w/ Revolutionary Private Calls</strong></td>
<td>“I’m looking forward to the naysayers being proved wrong when my watch (finally) arrives. Thanks for the update and please keep them coming. Prove them wrong PHTL. Please:)”</td>
<td>Positive</td>
<td>Expresses trust in the creator</td>
<td>Hope; Encouragement</td>
</tr>
<tr>
<td><strong>vrAse: The Smartphone Virtual Reality Case</strong></td>
<td>“After so many years, I’ll be interested in seeing what you come up with. Hopefully it will be quite delightful and more than we expected. However, I’ll not hold my breath in anticipation. If the headset is to original design specifications, hopefully, you’ll at the very least include a QR code for Google CardBoard specifications. It could make a nice gift for a kid.”</td>
<td>Cautious optimism</td>
<td>Unsure about creator’s trustworthiness</td>
<td>Hope; Skepticism; Gives advice to the creator</td>
</tr>
<tr>
<td><strong>Vertus–Spread the Music Without Wires</strong></td>
<td>“As I’ve said on other projects, quality trumps delivery, so this is good news. Don’t deliver till you have the product you truly envisioned. Keep up the great work”</td>
<td>Positive</td>
<td>Expresses trust in the creator</td>
<td>Encouragement; Gives advice to the creator</td>
</tr>
<tr>
<td><strong>Neptune Pine: Smartwatch. Reinvented.</strong></td>
<td>“Although this is not a commercially successful product and many backers are somewhat disappointed on it. I am very surprised that it made an appearance as a key devices on movie The fate of the furious (or Fast and Furious 8). Considering that this is 2017, I an everyone can proud that we made a step way ahead on technology even with Hollywood. Congratulations, Neptune!”</td>
<td>Negative</td>
<td>-</td>
<td>Surprise; Sarcasm; Support; Encouragement</td>
</tr>
<tr>
<td><strong>Radiate Athletics: The Future of Sports Apparel</strong></td>
<td>“Thank you for your efforts. Starting up a new enterprise is challenging and you guys are doing a great job! The issues you faced will make you stronger. Best of luck”</td>
<td>Positive</td>
<td>Expresses trust in the creator</td>
<td>Appreciation; Encouragement; Hope</td>
</tr>
</tbody>
</table>
4.2. Visual Mapping of Backers’ Emotions

In this section, we present the overall emotional valence of funders as expressed in their comments and then proceed to present a more nuanced understanding of the positive and negative valence displayed by backers in each campaign. For a detailed visual map of the crowds’ emotions for each campaign, refer to Appendix A.

4.2.1. Campaign 1: Glowing Plants: Natural Lighting with no Electricity, Kickstarter

“DNA laser printing will change life as we know it, starting with glowing plants”. Testimonial by Austin Heinz, Founder-Cambrian Genomics (Source: Kickstarter.com).

In 2013, the Glowing Plant campaign on Kickstarter raised nearly half a million dollars, surpassing its initial goal of a mere USD 65,000. The vision it presented to the backers perfectly encapsulated the promise of synthetic biology, a field that treats the natural world as another system to be designed and reengineered. In this case, the creators highlighted the role of synthetic biology as a possible solution to one of the world’s most pressing energy problems, electricity generation. Although the Kickstarter campaign promised a small, potted glowing plant to its backers, many contributed to the campaign as a small way to buy into a much grander vision. One of the audacious stretch goals of the project was to create a glowing rose. However, as the ambitious campaign progressed, the team encountered the hard realities of engineering in creating a plant that could glow. The creator frequently delayed its delivery of promised rewards and kept pivoting and eventually downgraded the rewards to a lower-order goal of creating a fragrant moss. However, a day before the moss was scheduled to be shipped, it was found to be contaminated, and the project failed publicly and spectacularly to deliver the much-hyped genetically engineered plant.

Our analysis of the landscape of emotions expressed by the backers in the campaign is depicted in Figure A1a (refer to Appendix A). Positive emotions surge at the beginning of the campaign and remain marginally positive until the last update around 2017 (when the creator announces that the rewards cannot be delivered). Interestingly, there was some baseline positive valence even after the last update till January 2022. This indicates backer support even after the creator communicates his inability to deliver promised rewards or a refund to the backers. Notably, negative crowd emotions progress in stages. Backers of the campaign are the most anxious starting around mid-2014, about two years after the campaign ended. Although there are spurts of anger throughout the campaign, the predominant negative funder emotion displayed towards the end of the period over which comments are captured is sadness.

4.2.2. Campaign 2: Coolest Cooler: 21st Century Cooler That’s Actually Cooler

“We’ve backed you, we’ve bought in (literally) to your vision, now it’s up to you to fulfill your promise . . . ”—A backer’s comment (Source: Kickstarter.com).

Coolest cooler garnered significant media attention as it raised 13.69 million USD to become the second most successfully completed Kickstarter project in terms of total funds raised. Its spectacular success was to be followed by tremendous negative publicity as a large number (approximately 20,000 backers) did not receive the award even though the product was available for sale on e-commerce websites such as Amazon.com. We chose this campaign because it was remarkably successful in terms of getting funded but failed spectacularly to deliver rewards to a significant proportion (one third) of backers. Initial backer excitement around the project is reflected in the high positive valence of backer comments in the first leg of the campaign, demonstrated in Figure A1b of Appendix A. The year 2015 seems to be an inflection point for the campaign, when some of the backers started expressing concerns about not getting the reward as well as about issues with the quality of the product, such as the short battery life of the cooler. Eventually, the Coolest Cooler had to shut down and had a legal settlement with the Oregon Department of Justice in 2020. Overall, initial backer engagement was instrumental in the record funding success of the
campaign. Unfortunately, the consequent execution failure of the creator predominantly evoked sadness along with spurts of anger along with some anxiety in backers.

4.2.3. Campaign 3: HOT Watch: Complete Smart Watch w/Revolutionary Private Calls

“PH Technical labs is using Kickstarter to beat tech heavyweights Samsung and Apple”—Testimonial by FOX Business News (Source: Kickstarter.com).

HOT Watch was touted as the next-generation smartwatch. The prospect of a reasonably priced smartwatch using ‘hands-on talk’ technology which would allow users to make private calls without touching the phone created a stir in smartwatch enthusiasts. The early positive valence in backer comments represents the excitement in the backer community. By 2015, some backers started receiving the watch but seemed dissatisfied with its poor quality and functionality-related issues. However, most backers had not received their watch by 2016. Backers who received the rewards were appalled at the disappointing outcome of the campaign, with some backers describing the watch as being ‘dollar store’ quality. Unfortunately, most backers waited for years for their rewards, and eventually, the technology became obsolete as more reputed organizations came up with more reliable options. As depicted in Figure A1c of Appendix A, except for some spikes in anger, the lingering negative emotion in the campaign is sadness.

4.2.4. Campaign 4: vrAse: The Smartphone Virtual Reality Case

“vrAse is a tremendous leap into the future. A 3D world wherever you are . . . While others are talking about how the future could look like, vrAse has just built it.”—Testimonial by Matthias Strobel, Nagual Sounds (Source: Kickstarter.com).

In its campaign launched in August 2013, vrAse, an augmented reality case, claimed to revolutionize the entertainment industry in an unprecedented way. The virtual reality case was originally due to be delivered in late 2013. Around February 2014, backers started losing their patience and began questioning the creator’s ability and integrity. The creator clarified that refunds were not possible as all the pledges had already been spent on the project. The resultant spike in negative emotions, specifically anger and anxiety is visible in the graphs in Figure A1d of Appendix A. Some backers continued defending the creator’s intention, while others became more vocal in their disappointment, resulting in disagreement within the backers. Even after the Facebook page of vrAse was taken down in 2017, many backers kept their hopes high. It is noteworthy that despite the delay and the issues with the product, the creator kept promising to deliver the rewards. In the meanwhile, he updated product information on other social media forums such as Twitter and YouTube, which possibly contributed to the unusual display of positive emotions by backers. After a roller coaster ride lasting 5 years, in 2019, some of the backers eventually received their vrAse headset, although most of them lamented the inordinate delay in delivery. Unfortunately, the resultant product had already become technologically obsolete. Further, the poor quality of the product marked the sadness in backers’ emotions towards the end of the campaign.

4.2.5. Campaign 5: Vertus—Spread the Music without Wires

“Syncing audio to a Bluetooth speaker is a common practice these days, but sending it wirelessly to two old-school speakers at the same time is a thing of the future”. Testimonial by Mashable.com (Source: Kickstarter.com).

Launched in April 2013, Vertus was meant to be an ingenious way to connect multiple Bluetooth speakers from devices such as smartphones, tablets, and laptops to an audio source. Like other campaigns in our study, Vertus reached its goal effortlessly amidst much enthusiasm amongst backers and curiosity-driven active interactions between backers and the creator. The early positive valence in the campaign between backers and the creator, shown in Figure A1e of Appendix A, was due to the backers’ eagerness to participate in the project, and the discussions revolved mainly around the product’s technical feasibility. During early 2013, backers started getting concerned about the creator duo’s lack of
willingness to post status updates on a regular basis. One backer aptly puts the concern across in the following comment, “As a kickstarter backer I expected to be along for the ride and be kept updated about the progression of the project. I now feel after 2 months of no official updates that I have been taken for a ride!” In turn, the creators called upon the backers to “not only believe in the project but more importantly trust its creators . . . ”.

Spurts of anger are evident in Figure A1e of Appendix A starting August 2014, when a backer complained against the creators in LA County Consumer Affairs and the creators threatened to pursue a defamation case against the said backer. In their sporadic updates to backers, the creators insisted that they will make good on their promise. However, most backers seemed disillusioned and complained about the product being outdated by passage of time. Nonetheless, in their last update in the year 2019, the creator duo claimed to have found an angel investor, which would allow them to manufacture the product in the US. The comment activity slowed down as it was evident to the backers that the rewards would not be delivered, and the campaign ended with characteristic sadness in backers’ comments. It is noteworthy that 89% of Vertus’s supporters were returning backers, signifying that they were experienced in supporting Kickstarter projects. Despite their prior experience with RBC, the collective judgment or the ‘wisdom’ of the crowd (Mollick 2015) failed to raise any red flags to deter prospective backers. While the campaign was a funding success, overall, the project ended as a fiasco as the creators failed to deliver rewards to any of the backers.

4.2.6. Campaign 6: Neptune Pine: Smartwatch. Reinvented

“... it sounds like a pretty amazing smartwatch that may actually be able to replace your phone instead of simply acting as a trusty sidekick ... ”—Testimonial by TechnoBuffalo (Source: Kickstarter.com).

Neptune Pine, the smartwatch, got funded by 2839 backers in December 2013 amidst much fanfare and was due to be delivered by Jan 2014. The backer community of Pine users, called ‘Piners’, remained exceptionally active on the comments board, posting 10,199 comments between 2013 and 2018. While the creator claimed to have shipped deliverables to all backers, backer comments reveal a different story. Although ‘Piners’ crossed the 200 mark in 2015, many voiced their discontent as they failed to receive the watch or its accessories (e.g., clock faces), or were underwhelmed by the quality of the product or the communication initiated by the creator. Further, many backers were disappointed because the Neptune team launched Neptune Duo, their next product, while still facing challenges with Neptune Pine. Figure A1f of Appendix A depicts the emotional valence of the backers.

4.2.7. Campaign 7: Radiate Athletics: The Future of Sports Apparel

This Could Be Big: “Workout Shirt Reveals Your Inner Hulk”—Testimonial by ABC News (Source: Kickstarter.com).

Radiate, the next-generation dry-fit sports shirt that changes color in response to body heat during workouts and was called ‘the space suit for athletes’. The idea of a heat-sensitive shirt was considered revolutionary and caught the imagination of many athletes and gym enthusiasts. As a result, the campaign attracted 8556 backers who raised more than 18 times of the original goal of USD 30,000. The excitement of the backers is visible in the unusual positive valence displayed in the beginning of the campaign as shown in Figure A1g of Appendix A. Creator updates primarily dealt with freebies and logistical information for backers. Although the creator occasionally referred to the delays in delivery and apologized for his “lapses in communication”, he largely failed to acknowledge issues related to the poor quality or possible non-delivery of rewards. Frustrated by the creators’ stubbornness in insisting that all the issues were being fixed, a backer initiated a Change.org petition demanding a refund by the creator at the end of 2014. One backer comment described the quality of the shirt as “shoddy” and the smell as “terrible” which is indicative of the backers’ disappointment with the quality of the product.
As the campaign dragged on for years, scores of backers continued complaining about not receiving the shirt or about being disappointed with its quality and displayed sadness.

**4.3. Patterns of Behavior and Emotional Valence in Backer Interactions with Campaign Creators in Failed RBC Campaigns**

Visual mapping of backers’ emotions in the aforementioned cases bring forth some interesting patterns in the displays of emotional valence. Figure 4 depicts backers’ emotional valence in progressive stages of interaction with creators in failed RBC campaigns.

![Visual mapping of backers' emotions](image)

**Figure 4.** Framework depicting three progressive stages of backers’ behavior and emotional valence in their interactions with campaign creators in failed RBC campaigns.

Stage 1 depicts ‘commitment’ by the backers, which is usually characterized by a positive reaction. Creator and backer interaction activity is usually high at this stage and is led by backer curiosity about product features and excitement about new possibilities the product can afford. When the rewards do not get delivered much beyond the expected timeline or the quality of the rewards does not meet the expectation of backers, stage 2 sets in. Stage 2, namely ‘crisis-handling’ by the backer, is critical, as it usually reveals the type of psychological contract the backer has assumed with the creator. We surmise in Proposition 1 that backers who perceive a transactional psychological contract with the creator are likely to display negative emotional valence when creators fail to deliver promised rewards. Further, an agency contract lens may aid in illuminating investor psychology driving negative reactions of the crowd members. As the principal in an agency contract, the crowd investors bear a number of risks, including the risk for potential campaign failure. Negative emotions can also be viewed as a psychological cost associated with the risk of failure borne by the crowd. Furthermore, our granular analysis of the negative emotions expressed by backers suggests that a vast majority of RBC backers tend to display a negative affect (anger, anxiety and sadness) in backer comments (refer to Appendix A). Backers often engaging in confrontation with the creator and could possibly be driven by extrinsic motivation(s) related to collecting the reward. They display behavior befitting customers in a commercial transaction and do not seem responsive to Kickstarter’s attempts to sensitize backers as to the fact that it is a forum to support new ideas and is not a ‘store’ to purchase commodities. In Proposition 2, we surmise that backers who perceive a relational or a balanced contract with the creator are more likely to display positive emotions when creators fail to deliver promised rewards. The analyses in our study reveal some positive emotional affect by backers in their comments in all the cases in our study (refer to Appendix A). Comments displaying positive valence indicate the proclivity of some backers to provide undeterred support and to trust to the creators even in the face of creators’ failure to deliver rewards (refer to Table 3). It seems likely that such backers are driven by intrinsic motivation(s) such as helping others and supporting a cause rather than the extrinsic motivation to receive a reward. In contrast with stage 2, which is characterized by spurts of anger and
occasional anxiety, stage 3, ‘coping-up’, signifies backers’ attempts to come to terms with the outcome of the campaign and is characterized by an overarching sadness in backers’ comments. It is interesting to note that among the three negative emotions studied in our paper (anger, anxiety, and sadness), sadness marks the end of the interaction between creators and backers in most failed projects. We believe that the proclivity to express specific emotions at various stages of interaction in failed projects may hold insights into the motivation(s) of the crowd. For example, lingering sadness in failed projects may be attributed to crowd-funders’ unfulfilled intrinsic motivation to be part of the creators’ success. Future studies may benefit from taking cues from backers’ emotional valence in each of the three stages to make inferences about the motivations of the crowd.

4.4. Impact of Creator’s Updates on Emotional Valence in Backers’ Comments

Updates posted by the creator presumably act as a trigger, evoking crowd reactions. In this section, we take note of the emotional valence of the backers’ comments in response to creator updates to observe how updates affect the emotional valence of backers in cases of creator default. We tracked the updates posted by the creators and the subsequent emotional response of backers. In Appendix B, we present selected creator updates and backer responses to depict the nature of interactions that take place between creators and backers in RBC. Interestingly, we find that when the creator posts an update delivering news to backers (e.g., inability to deliver rewards), the updates evoke a mix of positive and negative emotions in the backer community. Our findings further embolden the veracity of our theorizing that the crowd is likely to emote based on its perceived psychological contract with the creator.

5. Discussion

The crowd is vulnerable to the creators’ failure to deliver promised rewards in RBC. Although this concern has garnered attention in media outlets, it remains largely under-explored in academic research. We examine backers’ emotional valence embedded in the interaction between campaign creators and backers to gain insights into crowd psychology in scenarios when crowdfunding outcomes are to the detriment of the crowd. Although multiple factors drive the relationship between creators and backers, the reaction of the crowd when their implicit contract is violated is perhaps best understood adopting a psychological lens. Methodologically, the Eisenhardt approach to analyze representative cases allows us to achieve this objective by extensively studying the digital interaction between entrepreneurs and the crowd.

Our analyses offer a granular understanding of backers’ emotional affect and find support for our theorizing that backers who perceive a transactional psychological contract with the campaign creator are likely to display a negative emotional valence, and those who perceive a relational or a transactional contract are likely to display positive emotions when creators fail to deliver promised rewards. Further, we reveal patterns of emotional responses depicting three progressive stages (‘committing’, ‘crisis handling’, and ‘coping-up’) in backers’ interactions with creators in failed RBC campaigns and draw inferences about backers’ motivations to participate in RBC. Overall, this study advances the scholarly understanding of crowd emotions and takes a nuanced approach to exploring crowdfunding failure by exploring the outcomes of RBC post-funding. More broadly, we contribute to literature(s) on entrepreneurial finance and investor psychology in crowdfunding, a rapidly emerging context in entrepreneurial finance.

Our analyses of emotional valence in backer interactions on an RBC platform are relevant to three primary crowdfunding actors, namely, entrepreneurs, crowdfunding platforms, and lawmakers. Insights from our study may equip entrepreneurs or creators to accurately construe backers’ comments and to recognize the underlying patterns of emotional displays in crowd communications. Another important crowdfunding actor, the RBC platform, may benefit by taking cognizance of the interaction between creators and backers and addressing any expectation gaps arising due to unmet obligations per their
psychological contracts. Further, backers frequently call upon and expect lawmakers to strengthen regulatory oversight in RBC. Better governance may help redress issues between backers and creators in RBC due to a lack of mutual understanding in perceived obligations towards each other.

Arguably, the emotions expressed through backer comments can influence the perception, and consequently affect the investment intention of existing and future supporters since crowdfunding is an identity-based online social community (Burtch et al. 2016). Backers share a ‘common identity’ (Ren et al. 2007) with other backers as they belong to the same ‘social category’ (Turner 1985) as co-contributors to RBC campaigns. Sharing a common identity may exert social influence, which can lead members of the group to conform to the opinions and judgments of other group members (e.g., Meyerson et al. 1996). Thus, the future of crowdfunding is predicated, at least in part, on the emotional valence embedded in crowd-interactions on RBC platforms.

6. Limitations and Future Directions

We analyze archival comments from Kickstarter.com, a crowdfunding platform, where creators and backers are aware that their interactions take place in the public domain. Although being in the public gaze may have some bearing on the display of emotions by people in general, as compared to backers, creators may be more severely affected by the public availability of their information. Backer perceptions may affect the creators’ ability to raise funding in the future, and thus creators are more likely to hide their genuine emotions in crowdfunding. For example, Gleasure (2015) revealed the tendency of creators to use impression management techniques in crowdfunding. Since backers’ emotional displays do not have any direct financial implications or any other material consequences, we presume archival backer comments on Kickstarter to represent backers’ true emotions.

In addition to relying on their perceived psychological contract with creators, backers also rely on their psychological contract with the crowdfunding platform, possibly a rich area of future inquiry in its own right (McKenny et al. 2017). Furthermore, although our study does not deal with it directly, an expression of emotional valence as exhibited in funder comments may be fertile grounds for future research on ‘emotional contagion’ or the transfer of mood between backers, wherein positive contagion may lead to a convergence of views, and conversely, negative contagion may result in lack of consensus in the crowd (Barsade 2002).

While our study relies on archival data on Kickstarter, future studies may employ alternative approaches (e.g., experiments) to observe and draw causal inferences from backer emotions in RBC. Further, future research may investigate other types of RBC platforms to uncover crowd emotions and latent motivation(s). For example, while Kickstarter follows the all-or-nothing model, other platforms such as Indiegogo follow the keep-it-all model, which has a bearing on crowdfunding dynamics and outcomes (Cumming et al. 2020). Further, display of emotions by backers and creators may be dependent on contextual factors, such as national culture. Thus, investigations of crowd-emotions displayed on RBC platforms in a variety of contexts may enrich the crowdfunding literature.

7. Conclusions

Creators’ failure to deliver rewards to backers has an adverse impact on crowd-participation and is detrimental to the future development of rewards-based crowdfunding as a viable means of early-stage finance for entrepreneurs. Nonetheless, the impact of entrepreneurial failures to fulfill their promises of deliver rewards has garnered little attention in the crowdfunding literature. Our analyses of backers’ emotions in failed Kickstarter campaigns addresses this gap in the literature. Study findings support our theorizing that the emotional valence of backers depends on the nature of the psychological contract that they perceive with the creators of RBC campaigns. This research deepens scholarly understandings of the implicit exchange expectations between backers and campaign creators. The findings of our study may help entrepreneurs and crowdfunding platforms
better understand backer behavior in cases of project failure. Further, we hope that our findings will assist regulatory bodies in taking cognizance of crowd-emotions to address the vulnerability of investors in cases of entrepreneurial failure in crowdfunding.

**Author Contributions:** Conceptualization, S.O. and S.S.; methodology, S.S.; software, S.S. and S.O.; validation, V.K.G., R.J. and A.M.; formal analysis, S.O. and S.S.; investigation, S.S. and S.O.; resources, S.O. and S.S.; data curation, S.S. and S.O.; writing—original draft preparation, S.O. and S.S.; writing—review and editing, V.K.G.; visualization, S.O. and S.S.; supervision, V.K.G., R.J. and A.M.; project administration, V.K.G., R.J. and A.M. All authors have read and agreed to the published version of the manuscript.

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**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** We procured campaign-related information from Kickstarter.com for this study utilizing data scraping techniques using the python programming language. Specifically, we used campaign-related information with a focus on capturing backer comments, creator updates, and any other backer and creator interactions publicly available on Kickstarter.

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**Conflicts of Interest:** The authors declare no conflict of interest.

**Appendix A**

The appendix provides visual maps presenting temporal representation of emotional valence of backers for each campaign (refer to Figure A1a–g). Specifically, our visual maps capture the emotional valence displayed by backers embedded in interaction between creators and backers on Kickstarter, including crowd comments and responses to creator updates. For each campaign, we provide two maps, one presenting the overall emotional valence and the second presenting granular representation of negative valence.
Figure A1. Cont.
Figure A1. Cont.
Figure A1. Cont.
Appendix B

The appendix provides selected quotes from creators’ updates and subsequent backer reactions for campaigns in our study.

<table>
<thead>
<tr>
<th>Creator's Update</th>
<th>Examples: Backers' Positive Emotions</th>
<th>Examples: Backers' Negative Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dear Backers, . . . we receive the final shipment from China next week . . . It has been a long journey and we have encountered many manufacturing issues which caused delays but we are thankful to our backers for their patience and understanding.</td>
<td>• Actually, I’m pretty excited about receiving the leather watch I ordered. The reviews seem mostly positive so far.</td>
<td>• SCAMMMMMMM never intended to ship won’t refund total scam,</td>
</tr>
<tr>
<td></td>
<td>• Hello Backers! . . . we keep on working trying to catch up with our delay: However, sometimes magic happens, sometimes not. In work we trust. It appears clear that our expectations were far beyond our possibilities, but this also occurred because the product received much more success than expected . . . , we will be soon able to come up with concrete dates.</td>
<td>• I can’t believe people are still waiting for this watch :(. I got mine several months ago, but since it only stays charged for 10 min, it’s been useless and has sat in a drawer the entire time. I contacted them with my issue, but of course there was no response. I just hope Karma pays them a visit soon.</td>
</tr>
<tr>
<td></td>
<td>• Hello Backers! . . . we keep on working trying to catch up with our delay: However, sometimes magic happens, sometimes not. In work we trust. It appears clear that our expectations were far beyond our possibilities, but this also occurred because the product received much more success than expected . . . , we will be soon able to come up with concrete dates.</td>
<td>• . . . What a total joke. It is unfortunate that I have never backed a Kickstarter project since. There needs to be something put in place by Kickstarter to protect backers from this EVER happening again.</td>
</tr>
<tr>
<td></td>
<td>• We believe in you and will wait however long it takes.</td>
<td>• We believe in you and will wait however long it takes.</td>
</tr>
<tr>
<td></td>
<td>• Excellent update, thanks all of you. Regarding Hexa, please don’t forget to release it on iOS too!</td>
<td>• This is such a scam and joke. Hundreds of other headsets like this have been designed and manufactured in just a few weeks time . . . this feels like the biggest scam I backed.</td>
</tr>
<tr>
<td></td>
<td>• Great update! Because of the delay, some of us have purchased new smartphones. Will you allow us to change our version before ship?</td>
<td>• I still can’t believe I pledged $100 to these lying, thieving, low life, scum. I’m done with vRASe, vArse or whatever you call yourselves these days . . . , you deserve any and all the hostility and derision you get . . .</td>
</tr>
<tr>
<td></td>
<td>• Well, that is a great news for me. As it will have a transmitter feature . . . Thanks guys for all your hard work..</td>
<td>• I really thought this Project was awesome &amp; defended the Guys on numerous occasions but now I’m beginning to see what all the ‘haters’ are seeing . . .</td>
</tr>
<tr>
<td></td>
<td>• I agree . . . further prototypes and more investors will bring some life to the project. Please proceed faster!</td>
<td>• This is a complete and utter lie. There is no angel investor who would give these two frauds money. Maybe a family member but not a real investor.</td>
</tr>
<tr>
<td></td>
<td>• We would like to announce that a private angel investor has just agreed to invest in Vertus . . . This means we are going to have access to the extra capital we needed although it managed our budget, but instead, it caused delays with no real outcome.</td>
<td>• I understand that 300 k isn’t a lot of money when you’re developing a hightech gadget and the changes you have made in design and specifications would have incurred greater costs.</td>
</tr>
<tr>
<td></td>
<td>• I understand that 300 k isn’t a lot of money when you’re developing a hightech gadget and the changes you have made in design and specifications would have incurred greater costs.</td>
<td>• Where is the hidden camera? This must be a total joke . . . Get serious and deliver first your early backers rather than stealing money for delivering air . . . This is insane !</td>
</tr>
<tr>
<td></td>
<td>• Where is the hidden camera? This must be a total joke . . . Get serious and deliver first your early backers rather than stealing money for delivering air . . . This is insane !</td>
<td>• I think you have a misunderstanding of what a scam is.</td>
</tr>
<tr>
<td></td>
<td>• Where is the hidden camera? This must be a total joke . . . Get serious and deliver first your early backers rather than stealing money for delivering air . . . This is insane !</td>
<td>• Where is the hidden camera? This must be a total joke . . . Get serious and deliver first your early backers rather than stealing money for delivering air . . . This is insane !</td>
</tr>
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</table>

a. A private angel investor has just agreed to invest in the project. b. Some backer thanked the creators for their hard work and patience. c. The creators announced the arrival of a private angel investor. d. The creators thanked their backers for their support and announced a special offer to purchase additional watches.
Table A1. Cont.

<table>
<thead>
<tr>
<th>Creator’s Update</th>
<th>Examples: Backers’ Positive Emotions</th>
<th>Examples: Backers’ Negative Emotions</th>
</tr>
</thead>
</table>
| • The Pine has left the building! At the beginning of the week, the first 541 Pine units were shipped from China. A second shipment of 500 units will ship Monday 14 July, with the rest to come throughout the week. Global delivery is quite a logistical challenge. We’ll do our best to keep you up to date on where our inventory is going and when you can expect delivery . . . Thanks again for your support . . .
| • The idea and concept seemed amazing . . . I realize that unforeseen production problems can arise . . . I’m all for supporting a Montreal-based business . . .
| • Great news! Eagerly awaiting my water-resistant unit. Worth the wait!! Been with you guys from day one. Okay maybe day two.
| • Shipping dates were a rough estimate? Bullshit. You estimated 10 months to short? SCAM. You can’t deliver all watches at once? You sure got all the money at once. WE WANT A REFUND.
| • They manipulate the backer numbers. I was in the top 1500 when I backed originally. Now suddenly I’m backer #2893. The odd thing is their backers only list at 2839 total! Explain that Neptune! It’s a scam! They cheated me!

| • First, I would like to apologize for the numerous delays and for the lack of communication. I wanted to wait until I had concrete news before posting another update. We are preparing to ship out the remaining orders. In addition we are currently manufacturing the free Radiate 2.0 shirts for all of our Kickstarter backers and early adopters as a way to say Thank You for your patience, trust, and support . . . Again, we are tremendously sorry for the delays and we hope that you all enjoy your free Radiate 2.0 shirt this November. ¹
| • It’s a scam—the sooner proper legal channels are followed and these jokers taken down the better. I have never seen my original order, these people are thieves
| • I dont need a free t-shirt. I would just like my original order. How is this not criminal? Thousands of people pay for a good that was never delivered?

| • Backers, We’re sorry to say that we have reached a significant transition point. We were planning to start shipping the fragrant moss two weeks ago, but this has been delayed due to contamination in our production strain. As you know from previous updates our plan was to use the revenues from the moss to fund the ongoing glowing plant research, so the delay has caused financial stresses . . . We know this is a disappointing outcome for everyone, and nobody feels this more than we do after putting everything we have into the project over the last four years . . .
| • Thank you for the effort and investment you put into this. Yours was one of if not the first Kickstarter project I backed, and I don’t regret it for a moment. Good effort. Maybe someday something like this will succeed.
| • A very cool project, and something I think no one has ever attempted before. You guys are doing awesome work, and you’re adding tons of knowledge and innovation, which I’m proud to be a part of even if the rewards don’t work out. Keep going and good luck! :) ²
| • I’ve given up. This is quite frankly all just pretty words. Return. The. Money.
| • I waited FIVE YEARS for this disappointment. Hope I have not committed to a scam . . .

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Notes

¹ ‘Kickstarter.com’ was launched in 2009 and has emerged as the world’s most popular RBC platform. As of 20 March 2022, a total of USD 6,473,284,256 has been pledged to Kickstarter campaigns by 20,815,706 backers for 552,466 campaigns. Kickstarter campaigns have a success rate of 39.3%, and the top three most popular categories on Kickstarter are ‘games’, ‘design’, and ‘technology’. (Source: [https://www.kickstarter.com/help/stats](https://www.kickstarter.com/help/stats) (accessed on 20 March 2022).
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