On-Platform Engagement and the Success of Reward-Based Crowdfunding Campaigns

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ABSTRACT,

This thesis investigates the impact of on-platform engagement on the success of reward-based crowdfunding campaigns by Dutch entrepreneurs. The study examines three important success metrics—funding success, funding percentage, and backer count—using a comprehensive data set from Kickstarter. The dataset is retrieved from webrobots a platform that provides B2B data scraping services. According to the analysis, there is a significant increase in the likelihood of campaign success and funding percentage when there are frequent updates and active engagement through replied comments.

A logistic regression model is used to determine the predictors of funding success, while linear regression models examined the factors affecting the funding percentage and the number of backers. Higher funding goals are associated with a lower likelihood of success and a lower percentage of funding achieved, according to the results. Including a campaign video has a complex effect, but it positively affects the final state.

These results highlight how crucial it is to engage strategically on platforms and how regular, open communication with potential backers is essential. This research has implications for platform developers and managers of crowdfunding campaigns as well, providing insights into how to best optimize engagement strategies to improve funding outcomes. These results could be further investigated in the future by looking into various update formats and the long-term impacts of campaign tactics on the success of repeat funding.

This study offers a framework for enhancing crowdfunding strategies, which will ultimately help entrepreneurs achieve their funding objectives. It also advances our understanding of the role that digital engagement plays in financial outcomes.

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1. INTRODUCTION

Entrepreneurial ventures and startups often encounter obstacles when attempting to secure traditional financing methods such as bank loans, largely due to strict criteria and risk aversion among financial institutions (Beck et al., 2014). Because of this difficulty, entrepreneurs seek to fund their startups by means of personal savings or refuging to "Family & Friends." However, these options are not always viable in case a large capital is needed or where these somehow basic options are not accessible. In response to these challenges, crowdfunding emerges as an accessible and alternative form of capital acquisition for entrepreneurs, enabling them to bypass traditional barriers and reach a broader pool of potential investors (Belleflamme et al., 2014). According to Mollick (2014), successfully funded projects through crowdfunding not only bring new products to the market but also often lead to the creation of ongoing, viable businesses. Mollick (2014) finds that approximately 37% of project creators go on to start a business following their campaign, suggesting that crowdfunding plays a crucial role in stimulating entrepreneurial ventures. Reward-based crowdfunding, a subset of crowdfunding, offers backers tangible incentives in exchange for financial contributions, fostering a sense of reciprocity and engagement within the crowdfunding community (Gerber et al., 2012). Kickstarter is a leading reward-based crowdfunding platform, established in April 2009. It enables creators to present projects to a global audience, seeking financial contributions in exchange for rewards. Operating on an "all-or-nothing" funding model, Kickstarter ensures that projects only receive funds if they meet their funding goals within a set timeframe. This model reduces risk for backers, ensuring their contributions only support viable projects (Kickstarter, 2023). The success and proliferation of platforms like Kickstarter can be largely attributed to the emergence of Web 2.0, which transforms the internet from a predominantly consumption-oriented medium into a participatory environment. This shift allows users not only to consume content but also to contribute, interact, and create new content dynamically (Darwish, A., & Lakhtaria, K. I., 2011). The technologies underpinning Web 2.0, such as social media integration, collaborative tools, and real-time communication, simplify the entrepreneur-investor relationship (Mora-Cruz, A., & Palos-Sanchez, P. R., 2023). Crowdfunding platforms use these technologies to create active communities around creative projects in addition to facilitating transactions. This is an example of Web 2.0 and improves the efficiency of crowdfunding as a fundraising tool. Through crowdfunding, investors (the crowd) have easier access to investing opportunities and entrepreneurs are armed with a new funding source and this forms a kind of "democratization of finance" (Laffey, D., Durkin, M., Cummins, D., & Gandy, A., 2021). This democratization encourages innovation to become more diverse and boosts local economies, particularly in places where access to traditional funding sources is limited. These effects highlight the function of crowdfunding as a funding source as well as a stimulant for local economic growth. Collecting funds mainly takes place web-based on websites which are seen as platforms for such financing methods, from which the platform Kickstarter is the most known one under reward-based platforms (Lin, Y., Lee, W. C., & Chang, C. C. H., 2016). Kickstarter allows entrepreneurs to engage with potential investors, named as backers, through different ways. In reward-based crowdfunding specifically, studies find that investors behave as normal consumers in shaping their investment behavior (Bi, S., Liu, Z., & Usman, K., 2017).

Understanding the influence of on-platform engagement on campaign success is crucial for entrepreneurs seeking alternative financing methods. Through the implementation of efficient communication and engagement strategies, entrepreneurs can enhance their crowdfunding campaigns to attract additional backers and meet funding targets. This study's findings can also help crowdfunding platforms and legislators understand how crucial it is to enable solid interactions between backers and entrepreneurs to improve crowdfunding and encourage innovative business ideas. While earlier studies look at several factors that affect crowdfunding campaign success, specifically about the positive relationship between engagement in equity-based campaigns and its success (Borchers, S., & Dunham, L. M., 2022), and also about the engagement effect between entrepreneurs and backers in reward-based and donation-based contexts specifically on Israeli platforms (Efrat, K., Gilboa, S., & Sherman, A., 2020), there is a knowledge gap regarding the precise impact of entrepreneurs' usage of all on-platform engagement activities that a platform like Kickstarter offers for reward-based campaigns.

1.1 Research Question

This research aims to investigate the impact of the on-platform engagement of specifically Dutch entrepreneurs on the success of reward-based crowdfunding campaigns This study's main goal is to investigate how entrepreneurs' interactions with backers on crowdfunding platforms affect the campaign's success. These include regular updates, reaction to comments from backers, and the number of FAQ 's provided. Each of these elements is hypothesized to play a crucial role in contributing to the campaign's success. Given the identified aim of the study in understanding the direct impact of entrepreneurs' on-platform engagement activities on reward-based crowdfunding success, this study poses the following research question:

How does the on-platform engagement of entrepreneurs, including the frequency of updates, interaction with backer comments, and the provision of FAQs, influence the overall success of reward-based crowdfunding campaigns?

By investigating this question, the study seeks to offer practical recommendations that could help entrepreneurs optimize their engagement strategies to better meet their crowdfunding goals. The results may also be useful in helping platform developers and legislators make improvements to the laws and infrastructure controlling crowdfunding activities.

2. CONCEPTUAL FRAMEWORK

The conceptual framework, which provides a structure for understanding the dynamic interactions within crowdfunding platforms, forms the foundation of this study. The study incorporates multiple theoretical frameworks to examine the motivation of supporters and the tactics utilized by entrepreneurs to secure funding. In particular, this framework investigates how various forms of on-platform engagement affect crowdfunding campaign success by drawing on reward-

based crowdfunding mechanics, social identity theory, and signaling theory. The conceptual framework ensures an in-depth examination of the factors that contribute to crowdfunding efficacy by clarifying the theoretical foundations of these interactions. This helps to both guide and enrich the interpretation of the empirical investigation.

2.1 Reward-based Crowdfunding

Crowdfunding is the process of putting out a call, usually by means of a campaign, for donations or other rewards in exchange for a future product or other financial resources, usually via the internet, with the goal of supporting initiatives and startups in order for them to achieve particular financial goals. (Belleflamme et al., 2014). The primary difference of this kind of financing compared to other traditional forms is that the funds are obtained in smaller portions intended for a wider range of investors (Rechtman & O'Callaghan, 2014).

Such fundings usually occur in a variety of forms, some of which are regulated and some of which still require regulation. Peer-to-Peer lending and equity-based crowdfunding are identified to be regulated forms of crowdfunding, while reward-based and donation-based crowdfunding are still lacking laws and regulations.

Reward-based crowdfunding treats funders as early customers, granting them access to the products produced by funded projects at an earlier date, better price, or with some other special benefit. (Mollick, E., 2014). Not only the rewards, but literature also suggests other motivations that lead campaign backers. Factors such as the utilization of the backed-product, altruistic motivation and social belonging play a role in understanding the motivation of the backers of a campaign. (Steigenberger, N., 2017).

2.2 Signaling Theory

The asymmetric information of market participants and imperfect competition are two important aspects. Information asymmetry comes whenever a particular group of investors does not have access to the same information that is available to other investors or to the entrepreneur (Lambert, R. A., Leuz, C., & Verrecchia, R. E., 2012). To address this issue, the signaling theory has to be highlighted. The theory suggests that the behavior of the investors, when dealing with information asymmetry, depends on the communication of the entrepreneur with them, these communications are named as "signals". (Kromidha, E., & Robson, P., 2016). In crowdfunding, signals from the signaler, such as entrepreneurs or project founders, can influence the perception and decision-making of potential investors or backers (Courtney, C., Dutta, S., & Li, Y., 2017). Signals originating from the signaler in crowdfunding campaigns have diverse effects, including revealing information about start-up prospects and enhancing the signaler's credibility and trustworthiness. These signals may interact with each other, potentially offsetting or complementing their effects on crowdfunding success. (Courtney, C., Dutta, S., & Li, Y., 2017).

Considering the relevance of signaling theory to crowdfunding, the study might concentrate on the ways in which various signal types influence investor behavior. Some hypotheses derived from this framework are::

Hypothesis 1: *Higher levels of disclosed information about their startup, entrepreneurs will attract more* investment than teams with lower levels of disclosed information.

Ahlers, G. K et al. (2015), relates that higher levels of disclosed information act as a positive signals to the backers therefore leading to a successful campaign, in equity-based crowdfunding context.

2.3 Social Identity Theory

The social identity theory argues that people perceive themselves and other people as belonging to a group rather than as distinct individuals (Ellemers, N., & Haslam, S. A., 2012). According to the theory, intergroup behavior is rooted in social identity and is different from individual behavior. (Ellemers, N., & Haslam, S. A., 2012) In the context of crowdfunding, studies have shown that a person's identity affects their motive to invest or not invest in a project and that entrepreneurs who succeed in conveying their own personality and beliefs have higher rates of campaign's success. (Nevin, S. et al 2017). The use of the SIT theory in this study will focus primarily on the sense of belonging aspect of the theory. This framework could be highlighted by Tajfel and Turner's definition of social identity theory, which suggests that individuals' self-concept is partly derived from their membership in social groups (Tajfel & Turner, 1979). Borchers and Dunham (2020) found that regular and transparent communication in equity-based crowdfunding significantly correlates with funding success. However, their study did not specifically address the dynamics of reward-based crowdfunding or the combined effect of various engagement activities such as updates, FAQs, and comment responses. Moreover, Efrat, Gilboa, and Sherman (2020) explored the engagement effect between entrepreneurs and backers in reward-based and donation-based contexts on Israeli platforms, highlighting the importance of continuous interaction. Their study emphasized the role of updates and direct communication in building trust and encouraging investment. Despite these insights, there remains a lack of comprehensive understanding of how different types of on-platform engagement collectively influence the success of reward-based crowdfunding campaigns.

From that, one can derive that effective on-platform engagement creates a sense of belonging and that would motivate backers to invest in the campaign which leads to its success. This hypothesis can be formulated as follows:

Hypothesis 2: *Effective on-platform engagement by crowdfunding campaign creators, measured by frequent updates, comprehensive FAQs, and responses to comments, contribute to the campaign's success.*

3. METHODOLOGY

3.1 Research Design

This study uses an observational approach with a quantitative research methodology, using historical data on a sample of ended campaigns, to examine how engagement strategies affect reward-based crowdfunding campaign success. The Netherlands is the focus of this study because of the remarkable growth in crowdfunding activities in the region, which offers a rich context. 18,600 campaigns in the Dutch crowdfunding scene were successful in 2022, raising a total of 1.08 billion euros. This represents a significant 48% increase in activity over the prior year, indicating that investors and entrepreneurs alike are strongly embracing this alternative financing method (Crowdfunding Cijfers – De Nederlandse Crowdfunding Sector in Cijfers, 2024).

To explore the relationship between engagement tactics and campaign outcomes, a multivariate regression model is used. This model look at how different factors affect the chance of reaching funding targets, including how frequently updates occur, how long campaign descriptions are, how many FAQs there are, and how much backers' comments are engaged with. The campaign's success will be determined by whether or not it raises the required amount of money. Webrobots.io will supply historical data from reward-based crowdfunding campaigns that have been completed in the Netherlands for the empirical analysis, ensuring a thorough assessment of the influence of engagement strategies on campaign performance.

3.2 Regression Model

3.2.1 Regression Model:
In the literature on crowdfunding success, logit and probit regressions are widely used to analyze binary outcomes of campaign success, whereas linear regression is employed for continuous measurements such as funds raised and success ratios. This dual approach provides a comprehensive understanding of the factors influencing different dimensions of crowdfunding success (Deng, Ye, Xu, Sun, & Jiang, 2022).

Three regression models equations used in this study can be specified as follows:

Logit regression: $EndState = \beta_0 + \beta_1(NumbUpdates) + \beta_2(FAQ) + \beta_3(Replies) + \beta_4(duration) + \beta_5(year) + \beta_6(video) + \beta_7(badge) + \beta_7(sustainable) + \beta_8(goal) + \varepsilon$

Linear regression: $PercentFunded = \beta_0 + \beta_1(NumbUpdates) + \beta_2(FAQ) + \beta_3(Replies) + \beta_4(duration) + \beta_5(year) + \beta_6(video) + \beta_7(badge) + \beta_7(sustainable) + \beta_8(goal) + \varepsilon$

Linear regression: $Backers = \beta_0 + \beta_1(NumbUpdates) + \beta_2(FAQ) + \beta_3(Replies) + \beta_4(duration) + \beta_5(year) + \beta_6(video) + \beta_7(badge) + \beta_7(sustainable) + \beta_8(goal) + \varepsilon$

β_0 represents the intercept term.

β_1, β_2 and β_3 represent the coefficients corresponding to each independent variable.

β_4, β_5, β_6 and β_7 represent the coefficients corresponding to each control variable

ε represents the error term.

3.2.2 Data variables
Funding Success: Record the final amount pledged, the percentage of the goal achieved and the amount of backers.

Engagement Metrics: Track the number of updates, responses to comments, number of FAQs, and other engagement metrics indicative of the level of interaction between the campaign creators and backers.

Control Variables: Include the duration of the campaign, the presence of the "Projects We Love" badge added by Kickstarter, the presence of a video in the campaign description, the year of the campaign and the funding goal.

Dependent Variable:

The campaign success measure, which can be operationalized as follows, serves as the study's dependent variable.

Funding Achievement Rate: The percentage of the funding target achieved by the campaign.

Funding Achievement: The end state of the campaign determined by whether the funding goal was met.

Number of backers: The number of project's fundraisers

Independent Variables:

Frequency of Updates: The number of project updates posted by the entrepreneur during the campaign.

Engagement with Backer Comments: The quantity of times the entrepreneur responds to potential backers' comments on the campaign page.

Number of FAQs: The quantity of frequently asked questions the entrepreneurs provides in response to inquiries from possible investors.

Control Variables:

Campaign Duration: The length of the campaign in days.

"Projects We Love" Badge: A binary variable indicating whether the campaign received the "Projects We Love" badge from Kickstarter, which is a badge that Kickstarter gives to best-in-class projects (Kickstarter.com, 2016).

Presence of Video: A binary variable indicating whether the campaign description includes a video about the product.

Funding Goal: The amount of funding asked by the entrepreneur. In the regression models, the funding goal (goal) was log-transformed to normalize its distribution and facilitate interpretation. Specifically, the natural logarithm (ln) of the goal is used. This transformation helps in understanding the percentage change in the dependent variable for a percentage change in the funding goal.

Sustainability: A binary variable indicating whether the project has at least one sustainability focus aspect.

3.3 Campaign Selection

3.3.1 Sampling Criteria
To ensure a representative and relevant sample of fashion and apparel projects, specific criteria for campaign selection have been applied. These criteria control for potential confounding variables and ensure the robustness of the analysis:

Ended Campaigns: Only campaigns that have ended, without being canceled, between May 2014 and May 2024 are included. This time frame ensures a comprehensive analysis of recent trends and strategies.

Geographic Focus: Only campaigns based in the Netherlands are selected. This focus allows for the examination of localized engagement strategies and their effectiveness within a specific cultural and economic context.

Category Focus: Only campaigns categorized under "Fashion" or "Apparel" are included. This focus provides a detailed analysis of engagement strategies within a single, highly visual, and trend-sensitive category.

4. RESULTS

4.1.1 Correlation Matrix

Mollick (2014) also utilized a correlation matrix to analyze factors influencing crowdfunding success, finding significant correlations between success and variables such as project updates, social media presence, and project quality signals. Similar to the findings in table 3, Mollick reported that frequent updates and engagement significantly impact the likelihood of success. However, Mollick's study additionally emphasized the role of social media and project quality, which were not prominently featured in this study. The year variable was excluded from the correlation matrix as it is a categorical variable and would not provide meaningful observations in this context. Rather, to accurately capture its impact, the year was treated as a set of dummy variables in the regression models In the matrix, the correlation between the independent and the dependent variables is relatively positive

To ensure the robustness of the logistic regression analysis, several diagnostic checks are conducted. The linearity of the logit assumption was verified using the Box-Tidwell test, which indicated no significant violations. Additionally, multicollinearity is assessed using Variance Inflation Factor (VIF) values which all were under the commonly accepted threshold of 6. Based on these diagnostics, the final logistic and linear regression models are specified excluding the badge and entrepreneur experience variables. The final model includes the predictors number_updates, replied_comments, number_faq, duration, goal, video2, year, and sustainable. The control variable year was transformed to a dummy variable and the distribution of the campaigns among the years in shown in Figure 1.

4.1.2 Logistic regression model

The final logistic regression model provided several statistical outcomes. The number of updates posted by the campaign creator had a positive and highly significant effect on campaign success (Estimate = 0.4170, p < 0.001). Each additional update increased the odds of success by a factor of approximately 1.52, indicating that frequent updates can significantly enhance the likelihood of achieving the funding goal. Similarly, the number of replied comments showed a positive and moderate significant effect on success (Estimate = 0.2090, p = 0.051). Each additional replied comment increased the odds of success by a factor of approximately 1.23, highlighting the importance of engaging with backers through comments. In contrast, the number of FAQs did not have a significant effect on campaign success (Estimate = 0.0618, p = 0.4099), suggesting that while providing FAQs may be helpful, it is not a decisive factor in determining campaign success when other variables are

considered. The duration of the campaign was also not a significant predictor of success (Estimate = -0.0367, p = 0.223), indicating that the length of the campaign does not independently influence the likelihood of reaching the funding goal. However, the funding goal had a negative and highly significant effect on campaign success (Estimate = -0.8457, p < 0.001). Higher funding goals decreased the odds of success, with each additional unit increase in the goal reducing the likelihood of success by a factor of 0.43. This finding underscores the challenge of setting ambitious funding targets. Including a video in the campaign significantly increased the odds of success (Estimate = 1.3497, p = 0.046). Campaigns with a video were approximately 3.85 times more likely to succeed, demonstrating the powerful impact of multimedia content on attracting backers. Additionally, the year in which the campaign was launched had a positive and significant effect on success (Estimate = 2.7893, p = 0.037). Each additional year increased the odds of success by a factor of approximately 16.23, suggesting that more recent campaigns have benefited from improved strategies or platform features. Interestingly, campaigns with a sustainability focus didn't have a significant effect (Estimate = -0.7724, p = 0.202).

4.1.3 Linear regression model

Percentage of funding achieved

To investigate the factors influencing the percentage of funding achieved (rate_funded), a linear regression analysis was conducted. The initial model included predictors such as number_updates, replied_comments, number_faq, duration, goal, video2, year, sustainable, and badge2. Influential data points were identified and removed using Cook's distance, and the model was refitted without these points to ensure robustness. The final linear regression model provided several statistical outcomes illustrated in Appendix 1. The number of updates posted by the campaign creator had a positive and significant effect on the percentage of funding (Estimate = 0.0829, p = 0.011). Each additional update increased the funding percentage by approximately 8.29%. Similarly, the number of replied comments showed a positive and highly significant effect (Estimate = 0.0605, p < 0.001), with each additional replied comment increasing the funding percentage by about 6.05%. Also, the number of FAQs significantly affected the percentage of funding (Estimate = 0.1326, p = 0.007). The funding goal had a negative and significant impact (Estimate = -0.5019, p < 0.001), indicating that higher funding goals decrease the funding percentage achieved. Including a video in the campaign did not significantly affect the funding percentage (Estimate = -0.6256, p = 0.124). Additionally, the sustainability nature of the campaign didn't have a significant impact on the funding percentage.

Number of backers

A second linear regression model was conducted to examine the factors influencing the number of backers (backers_count). This model included the same predictors: number_updates, replied_comments, number_faq, duration, log_goal, video2, sustainable, and year (with dummy variables for each year). The final regression model for the number of backers showed different results. The number of updates had a negative but not significant effect on the number of backers (Estimate = -2.474, p = 0.543). However, the number of replied comments had a highly significant positive effect (Estimate = 8.439, p < 0.001), indicating that each additional replied comment increased the number of backers by approximately 8.44. The number of FAQs also showed a significant positive effect (Estimate = 16.341, p = 0.008), suggesting that providing more FAQs is

associated with a higher number of backers. Campaign duration and the log of the goal did not significantly affect the number of backers, with estimates of -1.180 (p = 0.577) and -7.970 (p = 0.599), respectively. The presence of a video, sustainability focus, also did not significantly affect the number of backers.

5. DISCUSSION

According to Deng, Ye, Xu, Sun, and Jiang (2022), funding success, funds raised, success ratio, and backer count are among the frequently used metrics in crowdfunding research. However, some studies result in inconsistent findings regarding the relationship between the same determinant and crowdfunding success. This variation can be attributed to the use of different measurements of a campaign's success while studying the same variables, which can yield varying results for the same determinant. To address this issue, this study looks at funding success, funding rate, and backer count as three different success metrics at the same time. Using this method, the study seeks to evaluate the impact of every variable from various success angles.

The study revealed that frequent updates and active engagement with backers, specifically through replied comments, significantly increase the likelihood of crowdfunding campaign success and the percentage of funding achieved.

However, the number of FAQs showed less significant effects on determining campaign's funding success but at the same time the significance appeared when looking at the funding rate and the number of backers. Whereas, including a video in the project description has played a significant, positive role in determining the end state of the campaign.

The research aimed to determine how on-platform engagement by Dutch entrepreneurs influences the success of reward-based crowdfunding campaigns. The findings strongly support the hypothesis that higher levels of on-platform engagement, measured through updates and replied comments, positively impact the likelihood of campaign success. This finding is consistent with Huang et al. (2023), who emphasized the importance of project updates and founder information in reducing information asymmetry and boosting investor confidence.

Determinants of Success from Different Perspectives

Funding Success

Frequent updates and active engagement with backers through replied comments were significant determinants of funding success. This aligns with the findings of Mollick (2014), who noted that regular updates can help maintain backer interest and confidence, thereby increasing the chances of success. The number of FAQs, while not significantly affecting funding success, still plays a significant role in providing necessary information to backers, potentially reducing uncertainty and enhancing trust., this can be shown by the positive and significant effect that the FAQ has on the number of backers The logistic regression model has also shown that setting a higher goal decreases the chances for successful funding. This aligns with the findings of several other studies, such as Cordova, A., Dolci, J., & Gianfrate, G. (2015). It is worth mentioning that the year after the COVID-19 pandemic, 2021, has also had a positive significant effect in determining the end state. This is in alignment with the findings in the literature that states that internet users have more perceived trust when shopping online (Gu, S. et al. 2021). The study also mentions

that retail transactions in 2021 have risen 49.9%. In general, as seen in figure 1, in years 2020 and 2021 has risen significantly.

Funding Percentage:

The funding percentage was significantly positively impacted by the number of updates and the number of comments that were replied to, highlighting the significance of regular and active communication with potential backers. These results are consistent with earlier studies showing that transparency and continuous engagement through updates and comments can promote trust and lessen information asymmetry, which in turn can result in larger funding percentages and even overfunding (Koch, J. A., 2016). The inclusion of a campaign video did not significantly affect the funding percentage, suggesting that videos might have a complex impact on funding outcomes. This could be due to the varying quality and content of videos, which might not always resonate well with backers. Also, the inclusion of sustainable aspects did not play a significant role. However, as shown with the logistic regression model, setting a higher goal has a negative effect on the funding percentage.

Number of Backers:

The number of replied comments had a highly significant positive effect on the number of backers, indicating that active engagement through comments can attract more backers. This finding is in line with the study by Huang et al. (2023), which highlighted the importance of reducing information asymmetry through active communication. FAQs also positively impacted the number of backers, although the effect was less pronounced compared to replied comments. This suggests that while providing detailed FAQs is beneficial, directly engaging with backers through comments is more effective in attracting a larger number of backers. The analysis reveals that while frequent updates significantly impact the percentage of funding achieved and the overall funding state, they do not show a significant effect on the number of backers. Specifically, the coefficient for the number of updates in the backers regression model is not statistically significant (p = 0.543). This suggests that while updates may enhance backer confidence and encourage higher funding contributions, they do not necessarily attract a greater number of backers.

The findings of the research provide entrepreneurs and campaign managers operating in the crowdfunding industry with several guidelines. At its core, a campaign's strategy would have to include regular updates and active communication with backers through replied comments. These steps improve the funding percentage in addition to raising the possibility that the campaign will succeed. Entrepreneurs should plan to provide updates on a regular basis and strive to reply to backer comments in a timely and comprehensive manner.

Understanding the roles of these engagement strategies can help entrepreneurs tailor their campaigns more effectively to attract backers.

The study's results have significant implications for the crowdfunding industry. Platforms can use these insights to create features and tools that help campaign creators and backers communicate more effectively. For example, to improve communication with backers, platforms may implement improved comment management systems or automatically remind creators to publish updates. Both business owners and the platforms themselves may gain from these enhancements, which have the potential to raise overall campaign success rates.

Furthermore, this study adds to our knowledge of how digital engagement tactics affect online platforms' financial results. This study offers a framework for other industries where online engagement is critical, like e-commerce and digital marketing, by emphasizing the value of regular updates and active participation.

One limitation of this study is the focus on reward-based crowdfunding campaigns by Dutch entrepreneurs, which may limit the generalizability of the findings to other types of crowdfunding or different geographic regions. Furthermore, biases specific to a particular platform may be introduced by relying solely on data from that platform.

The results' external validity and robustness may be impacted by these limitations. For example, the effect of updates and interaction may differ depending on the kind of crowdfunding site or the cultural setting. In addition, some pertinent variability in the data may have been missed due to the exclusion of significant data points in order to assure robustness.

Further research could explore the impact of various multimedia elements on crowdfunding success beyond videos. Deeper insights could be obtained, for example, by looking at how infographics, live streams, and interactive content engage backers and increase campaign visibility. It would also be advantageous to look into how social media tactics and outside marketing, like e-mail campaigns, initiatives affect the results of crowdfunding. Understanding the ways in which distinct platforms and their attributes impact campaign effectiveness may also provide entrepreneurs with useful best practices. Furthermore, longitudinal research on the longevity of successful campaigns run by the same creators may provide insight into the evolution and sustainability of successful crowdfunding strategies. Lastly, comparative research in various nations and cultural settings may aid in the generalization of the results and offer a more comprehensive understanding of the dynamics of crowdfunding worldwide.

6. CONCLUSION

This study aims to address the research question: "How does on-platform engagement by Dutch entrepreneurs influence the success of reward-based crowdfunding campaigns?" Through the analysis of important indicators like funding success, funding percentage, and backer count, this study attempts to offer a comprehensive picture of the variables that influence the success of crowdfunding.

Several important insights are uncovered by the analysis. Regular updates and active communication with backers via comments that were replied to are consistently significant indicators of funding success and percentage of funding. These results lend credence to the theory that more information being shared and active communication improve campaign results by lessening information asymmetry and increasing potential backers' trust.

On the other hand, although helpful in providing essential information, the quantity of FAQs has no significant impact on achieving a successful state but did have that positive impact on the number of backers and the funding percentage. This implies that although FAQs can help clear up confusion, they don't have the same effect as dynamic engagement techniques like updates and comment replies.

The study also emphasized the complex function of campaign attributes. Setting realistic and attainable goals is crucial because higher funding goals are linked to lower funding percentages and lower success rates. It's interesting to note that adding videos had a big but complicated effect that increased the chances of success without necessarily raising funding percentages. The different quality and importance of the videos to the backers may be the cause of this complexity.

The results pertaining to sustainable campaigns were especially significant. In contrast to what was anticipated, sustainability did not significantly improve campaign outcomes, pointing to possible issues or misconceptions that need more research.

In conclusion, this study provides robust evidence that dynamic engagement activities, such as frequent updates and active replies to comments, are vital for crowdfunding success. These insights offer practical guidelines for entrepreneurs aiming to optimize their crowdfunding strategies and for platforms looking to develop features that facilitate better engagement. Future research should continue to explore the evolving dynamics of crowdfunding, particularly the long-term effects of engagement strategies and the impact of multimedia content on backer behavior.

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8. APPENDICES

8.1 Appendix 1 (Statistical Results)

Variable	Label	Description
Independent Variables		
Number of Updates	NumbUpdates	Number of updates during the campaign duration
Number of FAQs	FAQ	Number of frequently asked questions that backers may have
Replied on Comments	replies	Number of comments placed by backers that were replied to by the entrepreneur
Dependent Variables		
Reached Goal	EndState	Binary variable indicating whether the project reached the funding goal
Funding Percentage	PercentFunded	Amount raised by the backers divided by the project goal
Number of Backers	Backers	Amount of campaign's contributors
Control Variables		
Project Duration	Duration	Length of the campaign expressed in days
Year	Year	A categorical variable indicating the year in which the campaign is created
Video Presence	Video	Binary variable indicating whether there is a video present about the product
Projects We Love Badge	Badge	Binary variable indicating whether there is a badge present that highlights the campaign
Sustainability	Sust.	Binary variable indicating whether the project has sustainable characteristics
Funding Goal	Goal	Continuous variable indicating the amount of funds required by the entrepreneur

Table 1: Description of Variables

Variable	Min	Max	Mean	Median	Standard Deviation	Skewness
Funding Rate	0	22.34	2.23	1.07	3.57	3.05
Number of Backers	0	5104	131.21	40.50	428.43	8.63
Number of Updates	0	31	5.53	3	6.79	1.80
Number of FAQs	0	23	1.87	1	3.41	2.84
Replied-on-Comments	0	265	10.89	4	36.88	5.21
Project Duration (days)	5	60	30.36	30	11.15	0.48
Entrepreneur Experience	0	20	1.50	0	3.60	2.65
Funding Goal ($)	15	10000000	57773.42	5250	681401.90	14.62

Table 2: Descriptive statistics cont. variables

Variable	Yes_Count	No_Count	Yes_Percentage	No_Percentage	Observations
Funding Success	132	82	61.68	38.32	214
Video Presence	131	83	61.22	38.79	214
Badge	17	197	7.94	92.06	214

Table 3: Descriptive Statistics binary variables

Variable	rate_funded	Backers Count	End State	Number of Updates	Replied Comments	Number of FAQs	Campaign Duration	Log(Goal)	Video	Badge	Sustainable
rate_funded	1.000										
Backers count	0.649	1.000									
End state	0.464	0.216	1.000								
Number updates	0.485	0.359	0.571	1.000							
Replied comments	0.648	0.750	0.236	0.469	1.000						
Number FAQ	0.377	0.467	0.240	0.340	0.482	1.000					
Duration	-0.156	0.078	-0.271	-0.119	0.128	0.151	1.000				
Log(goal)	-0.233	0.144	-0.347	-0.031	0.180	0.234	0.464	1.000			
Video2	-0.087	0.170	-0.016	0.109	0.189	0.288	0.242	0.481	1.000		
Badge2	0.097	0.105	0.125	0.138	0.146	0.166	0.070	0.169	0.234	1.000	
Sustainable	0.081	0.200	0.026	0.077	0.242	0.202	0.057	0.264	0.366	0.179	1.000

Table 4: Correlation Matrix

Variable	Logit Model p-value (std.error)	Linear Model (funding %) p-value (std.error)	Backers Model p-value (std.error)
(Intercept)	0.008 (2.233)	<0.001 (1.229)	0.44 (153.666)
number_updates	<0.001*** (0.091)	0.011** (0.032)	0.52 (4.049)
replied_comments	0.051* (0.107)	<0.001*** (0.006)	<0.001*** (0.726)
number_faq	0.41 (0.075)	0.007*** (0.048)	0.008*** (6.034)
duration	0.223 (0.03)	0.223 (0.017)	0.577 (2.128)
log_goal	<0.001*** (0.247)	<0.001*** (0.126)	0.599 (15.73)
video2	0.046** (0.676)	0.124 (0.405)	0.937 (50.613)
sustainable	0.202 (0.605)	0.61 (0.384)	0.739 (48.032)
Numb. observations	214	214	214
Adj. R^2		0.585	0.5496

Significance levels: *** = 1%, ** = 5%, * = 10%
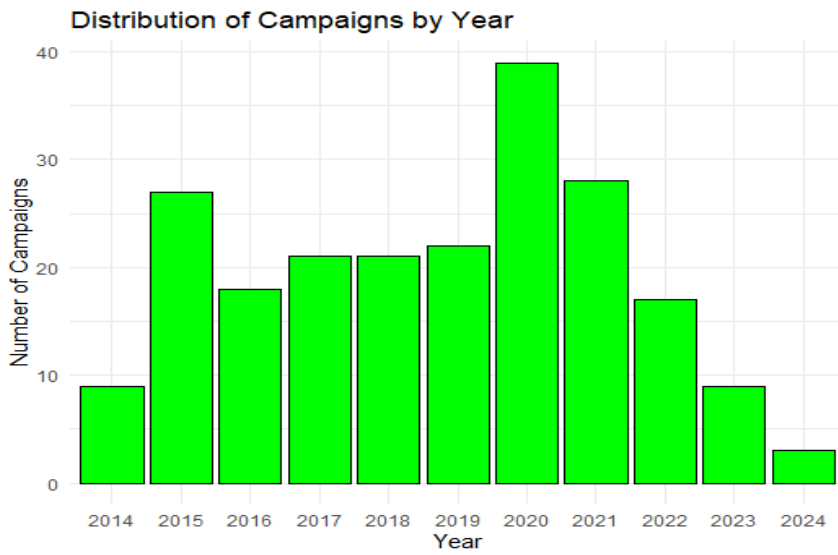
Table 5: Regression Models

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Figure 1: Campaign Distribution per year

8.2 Appendix 2 (Kickstarter campaign)

PRIMAL Soles 2.0 - The Ultimate Performance PRIMAL Clouds

Experience ultimate comfort, arch support and posture correction with every step. Feel the difference with our Planet's first circular cork insoles!

Get a Pair

Created by
David Even

223 backers pledged €18,071 to help bring this project to life.
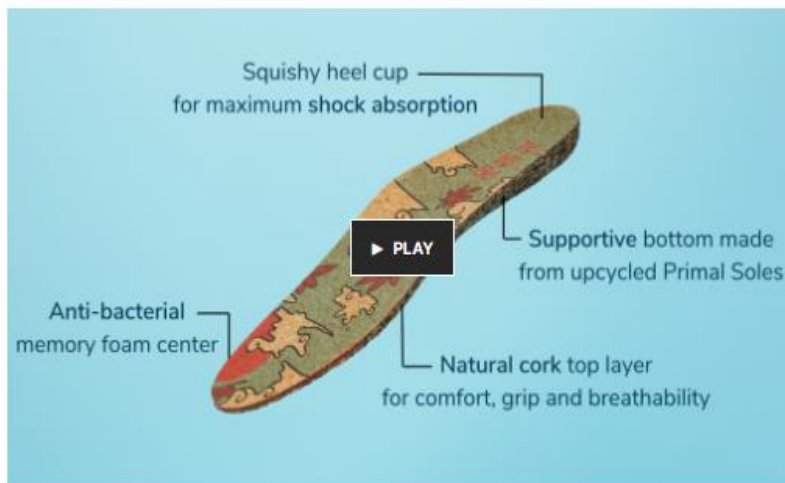
Last updated December 13, 2023

Campaign   Rewards   FAQ 12   Updates 14   Comments 55   Community

Squishy heel cup for maximum shock absorption

Supportive bottom made from upcycled Primal Soles

Anti-bacterial memory foam center

Natural cork top layer for comfort, grip and breathability

▶ PLAY

PRIMAL Clouds 2.0 - Experience Walking on Air, Every Day

Amsterdam, Netherlands   Footwear

€18,071
pledged of €4,533 goal

223
backers

All gone

Donate towards our rePLANET project   €9

In collaboration with Intent for Change, rePLANET and Cortiçeira Amorim we are going to reforest 1.000 hectares (2.471 acres) of cork oak forest in southern Portugal. We will de-risk and uplift local habitat and biodiversity within the Portuguese cork oak forest ecosystem, known as the Montado.

Funds needed to start this project: €250K
Learn more in our "Let's Talk Cork" section.

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