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# Stretch Goals and Crowdfunding Success: The Trade-off between Likelihood to Invest and Contribution Amount (ERF)

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# Stretch Goals and Crowdfunding Success: The Trade-off between Likelihood to Invest and Contribution Amount

*Emergent Research Forum (ERF) Paper*

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## Abstract

In order to help campaign creators collect more funds beyond their initial target, crowdfunding platforms provide mechanisms that allow them to adopt more goals, stretch goals, beyond their original target. Our study investigate how stretch goals affect potential backers' decision-making process. Drawing on the literature on goal setting and decision under uncertainty, we propose that stretch goals are perceived differently during the funding decision process, and thus may lead to opposing effects at each stage of the process. We leverage granular data on funding decisions from a leading crowdfunding platform in Southeast Asia, and our preliminary results show that stretch goals are negatively associated with likelihood to fund while they are positively associated with contribution amount. Our study has the potential to offer a more nuanced understanding of how stretch goals affect crowdfunding performance by unpacking their influence on the funding decision-making process..

**Keywords**

Stretch goals, funding decision, crowdfunding, uncertainty.

## Introduction

As a new venue of fundraising, crowdfunding has emerged as a valuable channel for entrepreneurs seeking funds for their ventures to solicit potential investors. To optimize their chances of success, entrepreneurs carefully design funding campaigns with various strategies (Ahlers et al. 2015). Crowdfunding platforms also provide a wide variety of functions affording entrepreneurs with greater flexibility in their funding campaign designs so that they can raise more money. One of such functions offered by crowdfunding platforms is the option to stretch goals, which allows entrepreneurs to set funding targets above the initial goal (Kuppuswamy and Bayus 2017). Despite the prevalence of stretch goals and their significant roles in the fundraising process (Kuppuswamy and Bayus 2017), they have been largely overlooked in the literature. Most importantly, our understanding of how stretch goals shape investors decision-making process is still unclear.

Stretch goals have been shown to have contradicting effects ranging from positive to negative (Ahmadi et al. 2022). Furthermore, prior research has shown that entrepreneurs strategies' influence on investors' decision-making process is not always uniform, i.e., investors' likelihood to invest and their contribution amount can move in opposite direction (Burtch et al. 2015; Cryder et al. 2013). Thus, understanding how stretch goals affect investors' decision about whether and how much to contribute to a campaign is critical to comprehend their overall impact on crowdfunding success.

To answer this question, we heed recent calls from the literature to investigate investors' decision making as a process with various stages (Fisher and Neubert 2022; Petty et al. forthcoming) and integrate insights from goal setting and decision making under uncertainty literature to examine how stretch goals affects two aspects of investors' decision making: likelihood to invest and contribution amount. We theorize that increased uncertainty and difficulty plays a critical role in influencing the outcome of these two aspects, albeit in different directions. We posit that stretch goals negatively affect likelihood to invest whereas they positively impact contribution amount due to investors differing perceptions of stretch goals at each stage of the decision-making process.

To test our theoretical arguments, we employ a leading reward-based crowdfunding platform in Southeast Asia as our research context. The platform allows campaign creators to adopt stretch goals at any moment during their campaign. We selected campaigns that adopted stretch goals and obtained over 70,000 campaign visits and their associated information. The granular and detailed nature of the data allows us to unravel the relationship between stretch goals and various backing decision processes such as likelihood to invest and contribution supplied, conditional on conversion. To identify the causal effect, we employ a regression in discontinuity design (Imbens and Lemieux 2008). Our preliminary results demonstrate a negative relation between likelihood to invest and stretch goals, while indicating a positive relationship between contribution amount and stretch goals.

As we further develop our study, we intend to contribute to the crowdfunding literature in general and to the literature on the role of goal setting in crowdfunding particularly. We intend to extend the boundary of the literature by studying how the stretch goals, which have received little attention in the literature, influence potential backers' decision-making process.

## Theoretical Background and Hypothesis Development

Evaluating what shapes backers' behavior and their funding process has been of great importance in the crowdfunding literature (Allison et al. 2017; Burtch et al. 2015; Dai and Zhang 2019). Prior work predominantly investigates backers' decision as an overall outcome and ignores the fact that backers are confronted with two decisions in their funding process: whether to fund a particular campaign or not, and if so, how much to contribute. The few studies that have recognized the two-staged nature of backers' decision found that the factors that influence the likelihood of backing a campaign do not always align with the factors that affect the amount of money contributed (Burtch et al. 2015; Cryder et al. 2013). For instance, Burtch et al. (2015) showed that limiting backers' use of information control increases backers' desire to fund but decreases their average amount of contribution. This suggests that there may be different mechanisms at play when backers make each of these decisions, which entails a granular understanding of backers' funding process to provide implications for how project creators can optimize their crowdfunding campaigns.

Online crowdfunding platforms allow campaign creators to adopt stretch goals - goals set above the initial funding goal - as a way to encourage more contributions from backers (Kuppuswamy and Bayus 2017). Previous research has explored the role of goals in crowdfunding, with most studies focusing on the investigation of how goal proximity affects funding performance (Dai and Zhang 2019; Kuppuswamy and Bayus 2017). For example, Kuppuswamy and Bayus (2017) found that backers are more likely to contribute to a project as it approaches its funding goal than after it has already reached its goal. This is because backers believe that their contribution has a greater impact in helping the project to reach its goal. Although prior studies provide insightful findings, little is still known about stretch goals and their influence on backers' decision-making process because these studies have been focusing only on the original goal. Hence, we set to look at how the presence of goals, more specifically stretch goals, rather than their completion, influence backers' decision-making process.

We expect that a potential backer would be less likely to back a project with stretch goals for the following reasons. Stretch goals typically add more difficulty by stretching the original goal. The literature on goal setting suggests that as difficulty increases, the negative effect of a goal increases (Earley et al. 1989; Gary et al. 2017). When a task is more difficult, it may increase the perception of failure likelihood and decrease intention to participate in the task (Sitkin et al. 2011). Higher difficulty can increase the fear of failure and make goals appear less attainable (Ahmadi et al. 2022) leading individuals' likelihood to commit to them to decrease (Kuppuswamy and Bayus 2017) as they perceive them as unworthy of pursuit (Sitkin et al.

2011). Furthermore, with the already existing high uncertainty in early-stage venture such as crowdfunding (Kuppuswamy and Bayus 2017), investors' reluctance to invest increases with the level of uncertainty because they are unable to estimate the probability of success (Ahlers et al. 2015). Therefore, increased uncertainty will lower backers' likelihood to back a campaign. Based on these arguments, we suggest the following hypothesis:

**Hypothesis 1**: The presence of stretch goals will negatively impact backers' likelihood to invest.

Once a backer has decided to fund a campaign, the next decision is how much to contribute. At this stage of the funding process, we argue that the backer has already either overcome the hurdle of uncertainty amplified by stretch goals or has embraced it. They may overcome the hurdle by finding pleasure in the uncertainty due to the fact that they expect to derive utility from resolving it (Dai and Zhang 2019; Golman et al. 2021). This can be achieved when individuals focus on the process of pursuing a goal rather than purely focusing on the outcome (e.g. the reward that will be obtained) (Shen et al. 2015). In this instance the uncertainty created by stretch goals will be motivating and more commitment will be directed towards the goal (Shen et al. 2015). This in turn will increase the effort backers use to support the goal (Uy et al. 2015). Thereby, they set themselves to help in achieving that challenge by committing more money than if the campaign did not have a stretch goal.

Furthermore, as mentioned earlier, stretch goals increase the difficulty of the campaign. Reaching the phase of deciding how much to contribute implies that a backer has already accepted the goal and its inherent difficulty. Contrary to certain context where individuals can be compelled to achieve a goal without necessarily accepting it (Ahmadi et al. 2022), in our study, deciding to back a campaign comes with acceptance of the goal because it is done on a voluntary basis. As acceptance is known to be positively related to performance, especially in the face of a difficult goal (Erez and Zidon 1984), therefore, we suggest that when backers decide to back a project with stretch goals, they tend to contribute more.

**Hypothesis 2**: The presence of stretch goals will positively impact backers' contribution amount.

# Methodology

## *Data*

Our data was obtained from one of the leading crowdfunding platforms in Southeast Asia. The data contained information related to backers' contribution, their browsing history with the exact timestamps and all campaign related information such as description, comments and rewards. The platform allows campaign creators to add stretch goals in addition to their initial goal at any time during their campaign. In our study, we used all user activities and campaign information whose creators had adopted stretch goals. In total, our sample contained 73,706 backers' activities (including browsing and backing) from 140 campaigns. The unit of analysis is backer-transaction level.

## *Variables*

To test our hypotheses, we use two dependent variables. For the first hypothesis, we compute *backing* which is a dummy variable that represents whether a visit to a campaign page resulted in a backing or not (Burtch et al. 2018). For the second hypothesis, we compute *contribution amount* using the amount contributed per backing (Burtch et al. 2015; Dai and Zhang 2019).

Our main independent variable of interest is *stretch goal* which represents the presence of stretch goals when a potential backer visited or backed a campaign. It is computed as a dummy variable with 1 indicating the presence of stretch goals and which are not yet achieved, and zero otherwise.

Following prior research (Burtch et al. 2015; Burtch et al. 2018; Dai and Zhang 2019), we include several control variables including the total amount collected to date, the total number of comments and replies to date, the number of days left running and the number of campaigns previously backed by the backer. We include campaign fixed effects and time fixed effects to control for unobserved heterogeneity at the campaign level and capture time trends. We do not add campaign time-invariant attributes because they will be captured by campaign fixed effects (Burtch et al. 2015). Due to the skewness of the data, we follow prior studies and log-transform our continuous variables (Dai and Zhang 2019; Xiao et al. 2021).

## Data Analysis and Preliminary Results

To identify the causal relationship between stretch goals and funding decision making, we employ a regression discontinuity using only observations close to the discontinuity point (Imbens and Lemieux 2008). By doing so, the model is able to isolate the causal effect because other covariates are more or less similar and thus teasing apart the effect of potential confounding factors (Imbens and Lemieux 2008). Initially, we choose two bandwidths around the cutting point, which is the stretch goal adoption time (respectively 10 days and 5 days around the cutoff point). Only observations within the bandwidth are used in the analysis. To test our first hypothesis, we use a linear probability model with fixed effects (Burtch et al. 2015) while for our second hypothesis, we employ an ordinary least squares (OLS) with fixed effects (Burtch et al. 2018). Our preliminary results, as presented in Table 1, indicates that stretch goals are negatively related to likelihood to invest while they are positively related to contribution amount. We plan to conduct further analyses including a heterogeneity analysis among backers and conduct robustness checks to ensure the validity of our results.

| Dependent Variable | Likelihood to Invest | | Contribution Amount | |
|---|---|---|---|---|
| Bandwidth | 10 days | 5 days | 10 days | 5 days |
| Stretch_goal | $-0.380^{***}$ (0.111) | $-0.373^{**}$ (0.116) | $0.981^{**}$ (0.407) | $1.021^{**}$ (0.430) |
| Controls | Included | Included | Included | Included |
| Campaign effects | Included | Included | Included | Included |
| Time effects | Included | Included | Included | Included |
| Observations | 31,595 | 26,232 | 24,174 | 18,024 |
| $R^2$ | 0.231 | 0.229 | 0.254 | 0.270 |
| Notes: *p<0.1, **p<0.05, ***p<0.01, robust standard errors in parentheses | | | | |

**Table 1. Results Analyses of the Effect of Stretch Goals on Funding Decision**

## Expected Contributions and Conclusion

Our study is expected to contribute the literature that looks at drivers of investors' participation in crowdfunding and more particularly the role of goal setting in crowdfunding (Dai and Zhang 2019; Kuppuswamy and Bayus 2017). The prior research has been primarily focusing on initial goal attainment and often ignoring the effect of new goal adoption. Our work adds to this literature by unveiling how stretch goals influence backers' funding decision and by unpacking how they affect different parts of the decision process thus offering a more nuanced understanding of their effects. In light of our initial findings, it is important to highlight that the overall net effect of stretch goals may be dependent on the platform funding mechanisms. If backers are free to choose the amount to be contributed, the positive effect of stretch goals on contribution amount may compensate for the decline in the likelihood of investing. However, if contribution amounts are fixed, a decline in likelihood of investing would also imply a decrease in contribution, and thus always a negative net effect.

In the further development of our research, we intend to evaluate how stretch goals impact another aspect of the decision-making process which is decision speed. There have been calls in the literature to investigate how individuals' decision processes such as their decision speed are affected by different entrepreneurial settings and strategies (Fisher and Neubert 2022). Thus, our study aims also contribute to the entrepreneurial sensemaking literature by showing how entrepreneurs goal setting strategies can impact investors' sensemaking when evaluating whether to support an entrepreneurial activity (Fisher and Neubert 2022).

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