The Impact of Achieving Crowdfunding Goals on Post-Funding Market Entry

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ABSTRACT

In this study, we examine the impact of achieving crowdfunding goals on the post-funding market entry, focusing on the technology gadgets sector within the United States. Although the popularity of crowdfunding platforms has been growing, and still is, particularly on Kickstarter, a knowledge gap exists regarding the post-funding phase. This research investigates the key factors influencing the market entry success, including the funding duration, number of backers, engagement metrics (comments, FAQs, updates), and overfunding. Using a dataset specifically created for this research, consisting of 300 successful crowdfunding campaigns, we found that only 35.33% of these 300 campaigns were able to enter the market successfully. The key findings indicate that a higher number of backers, overfunding, and engagement through comments played a crucial role in campaigns entering the market. This study highlights the challenges founders face post-funding. The insights guide entrepreneurs in searching for ways to utilize reward-based crowdfunding to finance their high-tech gadgets, contributing to a clearer understanding of the factors that contribute to successful market entry.

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Keywords

Crowdfunding, funding challenges, market entry, backers, reward-based, engagement, overfunding, technology gadgets.

1. INTRODUCTION

Starting a business is challenging, and securing financing is crucial for the achievement of success and growth. However, research indicated that acquiring early-stage funding is challenging (Gompers, 2022) due to the novelty and innovation (Audretsch, Belitski, Caiazza, Chowdhury, & Menter, 2023), as well as the high level of intangible assets that lack collateral value (Hall & Lerner, 2010).

Starting businesses use a variety of funding options, for example, the more traditional funding methods such as borrowing money from the bank, with bank loans, or guarantees (Brown & Mason, 2014). Moreover, borrowing money from family and friends (F&F) as a private loan is done by almost 20% (Medine, 2023). Funding by private investors or entrepreneurs called "business angels" accounts for 13% of funding sources (Medine, 2023). A less traditional way to acquire funding is through crowdfunding, which raises money from a widespread audience (Agrawal, Catalini &Goldfarb, 2014). Via crowdfunding entrepreneurs appeal to a random crowd of individuals (i.e. backers) by presenting their concept on a digital platform (i.e. a crowdfunding platform) (Van Teunenbroek & Hasanefendic, 2023). With the rapid evolution of internet technologies, reward-based crowdfunding has emerged as a potent means of funding high-tech projects nearing the stage of product development. Whilst the contribution of crowdfunding started modestly, by December 2023, 5.2% of businesses used crowdfunding as a backing method to kickstart their businesses (Medine, 2023) (Kvk, 2024). This percentage is steadily increasing. The market size of crowdfunding has been growing by 14.5% every year, if this continues to grow, the market size will have doubled by 2030, with Kickstarter as the largest growing platform (Statista, 2023).

The difference between reward-based crowdfunding and traditional funding is that the contributors in reward-based crowdfunding do not receive any ownership stakes, but do get rewards, or products in return. Reward-based crowdfunding benefits businesses because they get to keep 100% of their equity, and the funds often do not have to be repaid (Thakur, 2022).

On average, nearly 80% of crowdfunding campaigns fail to raise their preferred capital, this percentage scares a lot of people away from the thought of starting a crowdfunding campaign. However, 20% do reach their desired goal or even surpass it, called overfunding (Garcia, 2023). Platforms such as Kickstarter, Indiegogo, and StartEngine are made to help businesses get funding by bringing ideas and projects to a wider audience on their platform (Kearl, 2023). Kickstarter, being the largest of the platforms, has funded over 250.000 projects with funds reaching almost 8 billion euros in total (Woodward, 2024). Because of the rapid growth of crowdfunding, it is becoming an increasingly valuable tool for investors and entrepreneurs looking for varied ways of investment opportunities.

This study aims to provide valuable insights to entrepreneurs and backers navigating the reward-based crowdfunding landscape. Focusing on campaigns inside the technology category, specifically the gadgets sector in the United States, is a vital but understudied area in terms of how the achievement of funding goals influences the post-funding market entry.

The main target audience for this research is entrepreneurs seeking ways to leverage reward-based crowdfunding to finance their high-tech gadgets.

With an understanding of the post-funding challenges and opportunities, entrepreneurs can prepare for a successful market launch.

Many studies about reward-based crowdfunding focus on how to achieve funding, and what factors contribute to reaching the funding goal. However, very few researched what happens to the projects and ideas in the post-funding phase. Recognizing the challenges when entering a market, post-funding resources can help redirect and optimize specific obstacles and ensure that the funds used are used efficiently. Because of this knowledge gap, the research question for this paper will be:

How does the achievement of funding goals in reward-based crowdfunding campaigns influence the post-funding market entry?

It is necessary to focus on one specific market to increase clarity and to make the research more focused. The focus is on successful projects in the gadgets sector within the technology category from the United States with >100% raised funds. The technology category on Kickstarter is enormous, with over 12.000 successful campaigns. Because of this high number of successful campaigns, we zoomed in further on the gadgets sector within the technology category. Even with further specialization in the gadgets sector, over 2500 successful campaigns remain, of which 1351 (on 8-5-2024) within the United States (Kickstarter, n.d.).

Despite the growing attention and economic output, reward-based crowdfunding remains understudied (Van Teunenbroek, Dalla Chiesa & Hesse, 2023). Most studies focus on other forms than reward-based crowdfunding, and those that do focus on reward-based crowdfunding tend to focus on increasing success (i.e. collecting a hundred % or more of the target goal) (Van Teunenbroek, & Hasanefendic, 2023) without considering the critical phase following successfully collecting the target amount, namely, the market entry.

2. LITERATURE REVIEW

In this paper, we study how certain project characteristics impact long-term crowdfunding success. To our knowledge, we are one of the first articles focused on success beyond the funding stage. In this, we focus on post-funding market entry. Since few studies focus on the post-funding phase, we use insights from the funding phase to guide this new research focus in the post-funding stage. Based on past literature about the pre-funding stage, we have certain hypotheses about the post-funding market entry. These hypotheses are focused on the influence of overfunding, funding time, engagement, the number of backers, and their influence on post-funding market entry successes.

2.1 Stages of Crowdfunding

In crowdfunding each project goes through several different phases starting with the launch and ending with product delivery. The phases have been further described in Figure 1 by Murray below.

	Phase 1: Ideation to campaign launch	Phase 2: The campaign	Phase 3: Post-campaign to product delivery
Description	Preparatory activities for a crowdfunding campaign.	Generating interest and commitment while the campaign is open; managing the campaign during this time.	Delivery of products (or services) promised to campaig backers; this phase ends when the product is delivered.

Figure 1: Phases of the Crowdfunding Process (Murray, 2023)

Murray (2023) divides crowdfunding into three phases. Phase 1 is the "ideation to campaign launch", in this phase the preparations for the launch of the crowdfunding campaign take place. Then comes phase 2 "The Campaign", which includes the generation of interest and commitment from backers. Lastly, in phase 3 "post-campaign to product delivery", products must be delivered to the backers, the phase is only completed once the products have been delivered. The market entry stage (Phase 3 in Figure 1) for gadgets in the United States is relevant to this paper. Many projects that have been 100% funded still do not make it to the market entry stage. However, since there are many projects on Kickstarter where more than 100% of the funding has been raised, the knowledge gap is: whether these campaigns are more successful than the ones that barely met the funding goal, this is connected to 2.4.4.

2.2 Crowdfunding

2.2.1 Traditional Funding Methods
Products and ideas can be financed in several ways, with traditional methods such as business angels, bank loans/guarantees, and F&F (Friends and Family) financing. The method can differ per sector. For instance, tech startups are generally funded through venture capital, funding in exchange for equity ownership, and business angels (Mars Discovery District, 2021). On the other hand, cultural and creative industries are mostly funded through personal savings, F&F, government grants, and loans (Loots et al., 2022).

Crowdfunding, especially for start-ups and social projects, has become a substitute for traditional funding sources (Tomczak & Brem, 2013). In the primary stages of financing, venture capital is being replaced by crowdfunding, but it is often an addition in later stages (D'Ambrosio & Gianfrate, 2016).

2.2.2 Types of Crowdfunding
For businesses, one of the biggest challenges across all industries is to acquire funding for projects and ideas (Webmaster, 2021). Crowdfunding is generally seen as a non-traditional method of funding. Besides reward-based crowdfunding, there are three other forms of crowdfunding, that are seen as more traditional, the lending model, the equity model, and the donation-based model (Bouncken, Komorek, & Kraus, 2015). Because reward-based crowdfunding offers a wider range of investment opportunities beyond stocks, and other funding methods, it allows investors to spread their funds across diverse asset classes and therefore mitigates risks.

2.2.3 Advantages for Backers
For investors, the advantages of crowdfunding are the accessibility and lower investment barriers, since no significant capital is needed to participate in early-stage investments, compared to the traditional stock market, where often much more capital is required to invest, whilst for crowdfunding less capital is required to be able to back a project. Another advantage of crowdfunding platforms is the increased speed and efficiency of transactions. Platforms come with the benefit of reducing paperwork and administrative complications. On the other hand, there are some challenges within crowdfunding. Since it is a relatively new way of investing, the safeguarding of investors in terms of protection, and fair/ transparent marketplaces is still in development of enhancement. There are risks with investing through platforms, such as fraud, illiquidity, and default, therefore investors should be knowledgeable, and be able to use tools to assess opportunities within crowdfunding (Gyan Consulting, 2023). For the funder, the rise of crowdfunding has become attractive because it offers an enhanced experience since they get a reward or products in return. Price discrimination because of pre-ordering makes crowdfunding projects and ideas attractive to invest in ("Crowdfunding: Tapping The Right Crowd", 2011).

2.2.4 Benefits and Opportunities
Via crowdfunding, it is possible to display market validation in an early stage (Bessière et al., 2019), if you receive sufficient funds. Showing that people back the product or idea gains respect and credibility and shows signs that the campaign is a (potential) success. Having many different people backing a campaign from the start (early adopters) introduces prospective loyal customers since they feel more connected, and they will help spread the word. With the opportunity to pre-sell a product or concept the entrepreneur can test the concept, and if necessary, still be able to pivot (Prive, 2021).

2.3 Post-Funding Market Entry
In a study on successes in equity crowdfunded firms in Europe, a sample of 337 firms was researched between 2009 and 2014 (Décarre & Wetterhag, 2014). A discovery was that equity crowdfunding contributes to the outcomes of successfully funded firms (Décarre & Wetterhag, 2014). Furthermore, in the short term, funding by business angels has stronger outcomes (Décarre & Wetterhag, 2014). Also, if the entrepreneur invests money into their firm, before the campaign, they are more likely to have positive outcomes (Décarre & Wetterhag, 2014).

Although this research by Décarre and Wetterhag is about equity crowdfunding, it can be used to form assumptions for reward-based crowdfunding. Since equity crowdfunding positively impacts successfully funded firms, reward-based crowdfunding may be better positioned for market entry. Furthermore, while equity crowdfunding offers benefits in the short term, reward-based crowdfunding might provide long-term benefits. Moreover, in reward-based crowdfunding, the backers are more engaged with the project, which may lead to larger market demand and awareness, enabling market entry and growth.

2.4 Factors Influencing Crowdfunding Success
Knowing why projects became successful in the first place is possibly relevant for understanding how the project can stay successful after a successful campaign. This paper focuses on the market entry stage, which entails introducing a product or service into a new or existing market ("Market Entry", 2022). Although the market entry stage is part of the post-funding stage, some factors that indicate prior success in crowdfunding might stay relevant for the market entry stage after the funding campaign has been completed.

In past literature, it has been confirmed that the higher the funding goal is, the fewer people reach the funding goal (Koch and Siering, 2015; Mollick, 2014), partially because projects need to attract a larger group of individuals since funding amounts are low (Van Teunenbroek & Bekkers, 2020). The longer the description text about the project also leads to a higher probability of a successful crowdfunding campaign (Koch and Siering, 2015).

2.4.1 Backers
Moreover, the number of backers and average donation amounts positively relate to crowdfunding success (Van Teunenbroek, Bekkers & Beersma, 2020, 2021). Also, the experience a project founder has from past crowdfunding campaigns positively impacts the success of the new campaign

(Zvilichovsky et al., 2014). Since the more backers a campaign has received is a sign of success in the pre-funding stage, it might also have a positive effect on the post-funding phase, bringing the project to the market. Therefore, the following hypothesis (H1) has been made.

H1: The number of backers of a crowdfunding campaign positively relates to the success rate of market entry.

2.4.2 Engagement

Concerning visibility, the number of pictures and video material during the campaign positively influences the success of the achievement of the goals for the campaign (Mollick, 2014; Xiao et al, 2014). Projects achieving high visibility during crowdfunding might benefit from broader brand recognition, which could help attract future customers and partners, helping market entry. Because visibility been has proven to affect the success of the campaign it might also have an impact on the possibility of market entry for other industries (Mollick, 2014; Xiao et al, 2014). Nonetheless, for the gadget segment, all projects use a high number of pictures and/or videos, therefore making it hard to study its effect on market entry. For this reason, the engagement of the campaign launchers towards the backers might have a larger impact on the market entry within the gadget segment. The engagement concerns the frequently asked questions (hereafter referred to as FAQ) made by the campaign founder, the number of updates from the campaign founder, and the number of comments amongst backers and the campaign founder. The following hypotheses (H2a,b,c) investigate this.

H2a: The number of comments on a crowdfunding campaign positively relates to the success rate of market entry.

H2b: The number of FAQs a crowdfunding campaign has posted positively relates to the success rate of market entry.

H2c: The number of updates on a crowdfunding campaign positively relates to the success rate of market entry.

2.4.3 Funding Time

A yet underexplored aspect is the time it takes to reach a target amount and the later success of the project. Each project has a predefined number of days to collect the target amount, often between 30 and 60 days (Van Teunenbroek & Bekkers). Studies discuss that informing people about the project's status and letting them know in which stages the project is in helps gain support (Koch and Siering, 2015). If the funding period is long (between 45 and 60 days), it could indicate a lack of support and confidence in the project among project founders, and therefore fewer backers will fund the project (Mollick, 2014). Thus, projects with short funding periods (less than 45 days) are more successful in achieving their funding goals. But if the effect of the funding time has an impact on the market entry, has not been researched in past literature. Therefore, the following hypothesis (H3) will dive into this gap in the literature.

H3: The duration of a reward-based crowdfunding campaign negatively relates to the success rate of market entry.

This hypothesis suggests that if there is a shorter funding period in the pre-funding phase, backers have a higher level of support and confidence in the post-funding phase. This will positively impact the successes in the post-campaign market entry stage.

2.4.4 Overfunding

Overfunding in crowdfunding is a common phenomenon, it occurs when a project surpasses the initial funding goal (i.e. collects more than 100% of the target amount), often reaching a higher amount of funding than initially thought (Pinkow, 2023). Overfunding is a sign of interest from backers and high demand, signaling that the project is valuable or innovative enough to be an exceptional idea (Pinkow, 2023). Although overfunding is generally seen as a good thing, it can also cause complications and challenges. The delivery of extensive rewards can become a burden because in most cases the founder did not anticipate that many backers, and the rewards, might become difficult to distribute and produce in higher quantities.
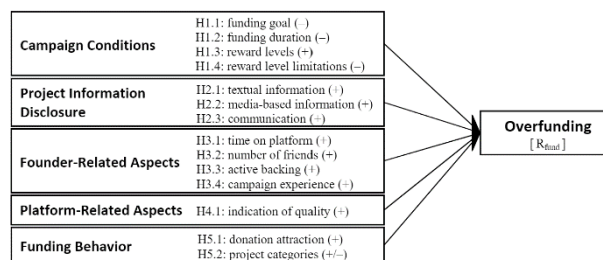

Figure 2: Overview Research Model Explaining Crowdfunding Project Overfunding (Koch and Siering, 2015).

Figure 2 explains the different components of a campaign that either do or do not impact overfunding. The + and – indicate whether it had an impact on overfunding during the campaign duration (+), or not (-). Figure 2 states that 'funding duration', 'funding goal', 'reward level limitations', and sometimes 'project categories' do not impact the project, causing it to be overfunded. But 'reward levels', 'textual information', 'media-based information', 'communication', 'time on the platform', 'number of friends', 'active backing', 'campaign experience', 'indication of quality', and sometimes 'project categories', do explain why a project is overfunded.

If overfunding has an impact on market entry has not been researched yet in past literature, therefore, the following hypothesis (H4) will investigate the impact of overfunding on market entry successes.

H4: Overfunded crowdfunding campaigns positively relate to higher success rates in bringing the project to market compared to campaigns that have barely met their funding goals.

3. METHODOLOGY
3.1 General Procedure

This paper is focused on a quantitative research design, investigating the relationship between achieving the funding goals in reward-based crowdfunding campaigns and product successes in the post-funding stage, namely market entry.

The data was collected via two steps: (1) web-data scraping of Kickstarter projects of the high-tech gadgets category and (2) manual web-data scraping via Google. This self-developed procedure was effective in gathering the necessary data for the research and innovative in its approach. The procedure was presented and discussed at the COST FINAI Fintech and AI in Finance Training at the University of Twente[1].

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[1]   https://www.digital-finance-msca.com/cost-finai-phd-school-2024

For the first step, with the use of a tool for web-data scraping, data will be extracted from Kickstarter.com. Since Kickstarter is the largest platform worldwide for crowdfunding campaigns, all the data needed can be extracted, except for the market entry and price of the products (Statista, 2023). The tool used is ParseHub, a free web-scraping tool that allows you to scrape data from every public website using the URL.

For the second step the selected campaigns were manually checked, to discover if they did enter the market, and at what price, or did not enter the market. Because the research is focused on campaigns founded in the United States, and the search for the market entry is conducted from either within the Netherlands or Germany, it was not possible to look at solely market entry on Amazon.com, because of country and sales restrictions. Therefore, the search for market entry was done by searching for it on Google using the crowdfunding campaign name, the product name, or via the link given in the description of the campaign on Kickstarter.

The criteria for market entry were that the project has successfully launched its product and that the product is available for sale online. If the campaign does not fulfil these criteria there is a case of no market entry.

3.1.1 ParseHub Web-Scraping
To collect data via ParseHub, firstly the tool had to be downloaded onto the device used for data scraping. Once downloaded, several tutorials within the program had to be followed to understand how ParseHub works because it was the first time using such a web-scraping tool. Once many tutorials were completed the first step was to add the URL of the website used for data scraping, this was the following URL: https://www.kickstarter.com/discover/advanced?state=successful&category_id=337&woe_id=23424977&raised=2&sort=magic&seed=2850557&next_page_cursor=&page=1. The URL had to be added to get to the correct page on the website Within this URL the selection of "magic" has been made, this is done to assure that the different campaigns are shown at random to increase the representativeness of the whole sample, it reduces bias because all campaigns have the same chance of being included in the sample.

To continue to retrieve the data from the URL the page had to be selected. After this, a custom value was created called '$createArrray(40)' for each item. Then a click value was added to the 'Load More' button on the bottom of the Kickstarter page. This helped to load the following 40 pages to continue adding more campaigns. Then each campaign name was selected and a 'relative selection' was added to the percentage funded a 'relative selection' is a term used within ParseHub to select a certain value. After this, the web-scraping tool clicked on each campaign name. On each campaign, the funding period, number of backers, number of FAQs, number of updates, number of comments, last updates, and the funding amount were selected and extracted. Then all this data could be extracted and downloaded. Once downloaded into an Excel file, the data was completely disorganized, all information was stored in one row for each campaign, and had to be separated from each other. Then also became clear that ParseHub has set a maximum on pages that could be scraped without paying to use the tool (maximum 200), and because 40 pages were loaded, only 160 campaigns were scraped with the tool, the remaining 140, were all manually scraped one by one, resulting in 300 campaigns. View the appendix Figures 13 and 14 for the input in ParseHub.

3.1.2 Market Entry Check Process
Each campaign was manually checked for market entry using the following steps. Step 1, most campaigns had a clear button linking the Kickstarter page to the campaign launcher their website where then the product could be found. If there was no button, step 2 was introduced, which was to click on the 'created by' link on the Kickstarter page, here the website link could be found, or any other link to sales pages. If this link did not work step 3 was done, which was to copy and paste the name of the Kickstarter campaign into Google, and then look for a website where the product would be sold. If this did not work either (step 4) only the name of the product was entered into Google and then again several websites had to be checked if they sold the product. If no information was found on the market entry the campaign got a value of '0', but if information was found on the market entry the campaign got a value of '1'. All campaigns with the value '1' had a separate row that included the price of the product. Once all 300 campaigns were manually checked and sorted the database was complete.

3.1.3 Sample
The focus will be on successful crowdfunding campaigns in the gadgets sector of technology projects in the United States, which have raised over 100% of Kickstarter's target amount. For the data analysis, 300 projects will be analyzed. We based the sample size on the formula to determine a sample size of a finite population, with a 95% confidence level and 5% margin of error, 300 projects out of 1,351 have to be analyzed.

$$ n = \frac{NZ}{Z^2N + e^2(N-1)} $$

Equation 1: Determining the Sample Size

The formula shown (Equation 1) has a few parameters. Firstly 'n' is the sample size, then 'N' is the population size of 1,351, 'Z' is the score associated with the confidence level of 95%, and 'e' is the margin of error of 5% in this case. We chose a confidence level of 95% to increase reliability, with a high degree of accuracy. The 95% confidence level is a common standard used by researchers and means that if the test were done 100 times, 95% of the time the results would be the same. The 5% margin of error and the sample size were checked and calculated using an online calculator (Margin Of Error Calculator | Pollfish.com, n.d.).

3.2 Variables
3.2.1 Dependent Variable
The dependent variable of market success is equal to '1' if the project was able to successfully enter the market after the campaign (the product is available for sale to the public), in case of no market entry the variable will be marked as a '0'.

3.2.2 Independent Variables
1. Percentage Funded: whether the campaign exceeded the funding goal (overfunded), or just met the goal. Variables are continuous, with campaigns >100% of the funding goal achieved.
2. Amount Raised: is the amount a campaign raised in total. This is a continuous variable.
3. Engagement: regarding the continuous variables of the number of FAQs, number of comments, and number of updates.
4. Number of backers: total number of people that contributed to the campaign. Variables are continuous within the range of >1.
5. Funding Time Days: the number of days the campaign was active on Kickstarter. This is a continuous variable ranging from 10 to 60 days.
6. End-Funding_Campaign: the date of the day the funding campaign ended, will be adjusted to a

continuous variable counting the days between the stated date and the 16th of May 2024, which is the date of the data transformation.

7. Last Update: is the date of the last date the founders updated the status of the campaign. This date will be changed into a continuous variable, also counting the days between the stated date and the 16th of May 2024, which is the last date of the data transformation.

3.3 Data

The database consists of 300 Kickstarter campaigns. We retrieved the data from the first of April 2024, till the 20th of April 2024. This sample of 300 campaigns solely includes campaigns from the gadgets sector on Kickstarter.

The following independent variables are continuous, 'Amount_Raised', 'N_Backers', 'Percentage_Funded', 'N_FAQ', 'N_Updates', 'N_Comments', 'Funding_Time_Days', 'End_Funding_Campaign', and 'Last_Update'.

3.4 Descriptive Statistics

The key insights from the descriptive statistics are shown in Tables 1, 2, and 3. These statistics include both the independent and dependent variables. When observing these descriptive statistics, it can be observed that there are outliers, by comparing the average (mean) and median. The median and the skewness can be determined.

Overall, when taking into account all 300 campaigns, 'Percentage_Funded', 'Amount_Raised', 'N_Backers', 'N_Updates', 'N_FAQ', and 'N_Comments', have the highest skewness. All variables are right-skewed, except for the 'End_Funding_Campaign', which is left-skewed (Table 3: 'Days_Until_End_Funding').

Because the data is skewed the treatment of the data will be analyzed using a non-parametric statistical method, namely the Mann_Whitney U Test, to compare two independent groups.

The mean of the 'Percentage_Funded' across the campaigns is high at 1,562.66, with a high standard deviation (SD) of 3,521.39 and right skew of 5.44 which indicated a large variation amongst campaigns, for campaigns that have entered the market, and campaigns that have not entered the market. This suggests that whilst some campaigns are funded well over their goal (31,864%), a few barely meet the goal (100%).

	vars	N	mean	SD	Median	Trimmed	Min	Max	Range	Skewness	Kurtosis	se
Percentage_Funded	1	106	1870.37	3136.35	579.5	1156.57	102	22164	22062	3.52	16.21	304.63
Amount_Raised	2	106	265198.06	434417.40	121884.0	172267.50	10838	3139884	3129046	3.94	19.18	42194.35
End Funding_Campaign	3	106	1772.42	1181.07	1667.5	1733.03	60	4428	4368	0.24	-1.20	114.72
Funding_Time_Days	4	106	36.99	10.42	32.0	35.79	14	60	46	0.90	0.00	1.01
N_Backers	5	106	1852.11	2589.02	890.0	1216.03	13	12578	12565	2.51	5.93	251.47
N_FAQ	6	106	8.66	8.20	7.0	7.48	0	40	40	1.45	2.62	0.80
N_Updates	7	106	20.97	15.53	18.0	18.60	1	103	102	2.22	7.33	1.51
Last_Update	8	106	1033.07	1061.37	675.0	898.95	16	3862	3846	0.87	-0.48	103.09
N_Comments	9	106	613.10	827.49	266.5	436.31	8	4841	4833	2.51	7.40	80.37

Table 1: Descriptive Statistics (n=106), Entered Market

	vars	N	mean	SD	Median	Trimmed	Min	Max	Range	Skewness	Kurtosis	se
Percentage_Funded	1	194	1394.54	3711.97	395.5	609.45	100	31868	31768	6.06	42.33	266.50
Amount_Raised	2	194	145181.03	277022.89	60570.0	88070.63	909	2542045	2541136	5.42	37.11	19889.08
End Funding_Campaign	3	194	1939.40	1277.28	2292.5	1962.81	26	4167	4141	-0.22	-1.49	91.70
Funding_Time_Days	4	194	36.13	9.14	32.5	35.13	10	60	50	0.78	0.60	0.66
N_Backers	5	194	1181.87	2214.52	543.5	730.29	15	18184	18169	5.17	32.44	158.99
N_FAQ	6	194	8.01	8.18	6.0	6.80	0	54	54	1.72	5.09	0.59
N_Updates	7	194	19.57	25.32	15.0	16.55	2	324	322	9.05	104.89	1.82
Last_Update	8	194	1435.22	1230.40	1670.0	1377.51	0	3950	3941	0.10	-1.55	88.34
N_Comments	9	194	497.26	1135.01	179.5	247.98	9	8793	8793	5.08	29.64	81.49

Table 2: Descriptive Statistics (n=194), No Market Entry

Variable	N	M	SD	Median	Trimmed	Min	Max	Range	Skewness	Kurtosis
Percentage_Funded	300	1562.66	3521.39	471.50	765.47	100	31864	31764	5.43	36.92
Amount_Raised	300	187570.4	545213.46	80063.5	85053.80	99	3138985	3138986	4.82	29.24
Funding_Time_Days	300	34.64	16.07	32.50	33.71	10	60	50	0.88	-0.55
N_Backers	300	1146.88	3371.67	635.00	846.54	13	18104	18091	3.94	16.79
N_FAQ	300	2.83	3.81	0.00	0.71	0	54	54	4.61	24.28
N_Updates	300	20.07	12.33	16.00	18.10	1	324	323	3.75	12.31
N_Comments	300	5391.09	10368.57	2035.00	2047.50	0	8793	8793	4.71	28.27
Days_Until_Last_Update	300	1291.27	1187.37	1003.0	1195.50	3	3950	3947	0.36	-1.36
Days_Until_End_Funding	300	1880.40	1244.77	2015.0	1882.12	26	4428	4402	-0.07	-1.43

Table 3: Descriptive Statistics (n=300)

'Amount_Raised' has a mean of 187,570.4 with again a large SD of 545,213.46, and the highest amount raised (max) being 3,138,985. The high positive right skew of 4.82 indicates that most campaigns raise less than the mean, with a few exceeding the mean by a lot for both campaigns that have entered and have not entered the market.

To continue, the 'Funding_time_Days' campaigns last on average (mean) 34.64 days. The low right skew and kurtosis (the measure of tailedness, also known as measuring how often outliers occur) indicate that it is normally distributed, therefore campaigns are overall quite consistent regarding the durations (Kenton, 2023).

Then the 'N_Backers' has a mean of 1,146.88, with a high SD of 3,371.67 and a right skew of 3.94. Whilst some campaigns attract several thousand backers, most attract fewer with a median of 635, which could be interpreted as the middle value.

Furthermore, the 'N_FAQ' has a mean of 2.83 and, a high kurtosis of 24.28 indicating many outliers. Furthermore, a low right skew for market entry (N= 106, skew = 1.45), and no market entry (N= 194, skew = 1.72), but for all campaigns combined (N= 300) the skew is higher (skew = 4.61).

'N_Updates' averaging at 20.07 has a right skew of 3.75 due to a few campaigns having a significantly higher number of updates compared to others. The skew for no market entry (skew = 9,05) is much higher compared to the skew for market entry (skew = 2.22). This difference in skew indicates that campaigns that do not enter the market have a much higher range between the amount of updates campaigns get.

The 'N_Comments' has a mean of 5391.09, but a large SD (10,368.57) and positive right skew (4.71), showing that as some receive many comments, most receive less than the mean. The skew is much higher for campaigns that do not enter the market (skew = 5.08), compared to campaigns that do enter the market (skew = 2.51).

Moreover the 'Days_Until_Last_Update' also known as the 'Last Update' has a large range too (3947). This is because some campaigns just recently got updated, and others have been silent for years, also because they ended years ago. The skew for both campaigns that have entered the market (skew = 0.87), and that have not entered the market is low (skew = 0.10), indicating that the distribution is quite symmetric.

Lastly, the 'Days_Until_End_Funding' also known as the End Funding Campaign has a big range (4402) because some campaigns just ended and others have ended many years ago. The skew is even negative for campaigns that have not entered the market (skew =-.22), indicating that the most extreme values are more left-tailed. For campaigns that have entered the market, the skew is slightly positive (skew = .24).

3.5 Treatment of the Data

3.5.1 Mann_Whitney U Test

To test the different hypotheses a non-parametric test called the Mann_Whitney U test will be used. With this test, the relationship between the dependent variable which is binary, and multiple independent variables can be tested, even though the data is skewed (mostly right skewed).

The dependent variable is the success of market entry for the different campaigns. This success is binary, either the gadget successfully entered the market after the campaign ended, written as a '1', or the gadget never entered the market or did enter but no information can be found on it written as a '0'.

3.5.2 Random Forest

Random Forest is a machine-learning model incorporated in this research as an exploratory analysis that can be used for regression tests. It makes different decision trees and then combines predictions to make more accurate predictions. By combining multiple decision trees randomness is incorporated into the test, and helps to capture several aspects of the data. Then for regression tasks, each tree made a prediction, and the average of these predictions will be the outcome. The added value of the random forest test is that if predictions have to be made, in this case, if the campaign entered the market or not, the random forest test can be used to make predictions with certain certainty.

4. RESULTS

4.1 Market Entry

When looking into the statistics one of the main findings is that the market entry rate is 35.33% for campaigns that entered the market 'Yes', and 64.67% for campaigns that did not enter the market 'No' after the campaign was completed, as shown in Figure 3. This indicates that about two-thirds of the campaigns did not reach the stage of market entry between the first campaign which ended on the first of April 2012, and the last campaign update on the 7th of May 2024.
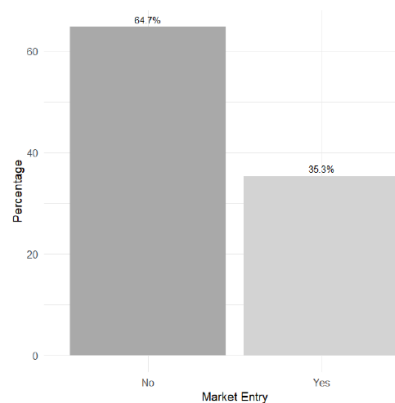

Figure 3: Market Entry Distribution

4.2 Correlation

The correlation matrix in Table 4 focuses on the dependent variable 'Market'. The outcomes of the correlation matrix show that the dependent variable 'Market' has a weak positive correlation with the independent variables. The trends are slightly positive with the variables 'Amount_Raised', 'N_Backers', and 'N_Comments' indicating that these have a slightly positive influence on being market-related. Market-related is the '1' (that the campaign entered the market). 'Last_Update' has a weak and negative correlation, showing that the days since the last update has a minor contrary effect on market entry.

	1	2	3	4	5	6	7	8	9	10
Percentage_Funded	-									
Amount_Raised	0.431860	-								
End_Funding_Campaign	-0.277519	0.005913	-							
Funding_Time_Days	0.137439	0.109450	-0.013621	-						
N_Backers	0.330648	0.653989	0.095073	0.105319	-					
N_FAQ	0.130149	0.324257	0.011942	0.011942	0.023481	-				
N_Updates	0.003303	0.137422	0.247126	0.066221	0.178470	0.086541	-			
Last_Update	-0.275131	-0.057435	0.882917	0.030527	0.010026	-0.420395	0.018208	-		
N_Comments	0.406367	0.642950	0.050892	0.126967	0.669287	0.311747	0.215707	-0.054547	-	
Market	0.064699	0.166505	-0.064235	0.042945	0.135341	0.038347	0.029980	-0.162167	0.053496	

Table 4: Correlation Matrix

4.3 Hypotheses

Variable	W	p value	z value
Percentage_Funded	8135.0	2.801063e-03	-2.9887662
Amount_Raised	7271.0	2.768482e-05	-4.1917195
End_Funding_Campaign	10980.5	3.311130e-01	-0.9718744
Funding_Time_Days	10211.0	9.194818e-01	-0.1010864
N_Backers	7698.5	3.225331e-04	-3.5964956
N_FAQ	9696.5	4.128991e-01	-0.8188025
N_Updates	9009.0	7.627585e-02	-1.7727156
Last_Update	11674.0	5.268278e-02	-1.9375121
N_Comments	8013.5	1.589026e-03	-3.1579136

Table 5: Mann_Whitney U Test

4.3.1 H1: Backers

The first hypothesis (H1) stated if campaigns had a larger number of backers, they were more likely to enter the market, compared to campaigns with fewer backers.

The median number of backers for projects that successfully entered the market (Mdn = 890.00, Table 1) is significantly different from the median number of backers among projects that were unsuccessful in entering the market (Mdn =543.50, Table 2), (W = 7,698.50, n = 300, $p <$ .001). Given the $p <$ .05, we can state that the amount of backers significantly affects the market entry.

Figure 4 below shows the boxplot for the number of backers that did enter the market (Yes) and did not enter the market (No). Successful campaigns (Yes) have a slightly higher median and more variability. This outcome aligns with the results of the Mann_Whitney U Test indicating that there is a significant difference.
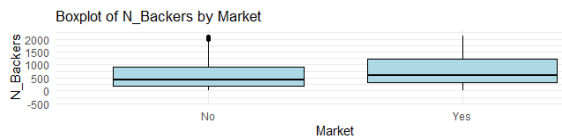
Figure 4: Boxplot Backers

4.3.2 Engagement

The following 3 hypotheses are all regarding engagement, operationalized via three separate variables.

4.3.2.1 H2a: Comments

The second hypothesis (H2a) stated that if a campaign has a higher number of comments, they are more likely to successfully enter the market, compared to campaigns with limited comments.

Tables 1 and 2 show that the median number of backers between projects that have successfully entered the market (Mdn = 266.50) and projects that did not enter the market (Mdn = 179.50), differs significantly. Table 5 shows the outcomes of the Mann_Whitney U Test (W = 8,013.50, n = 300, p = .002), where the p-value (<.05) shows a significant outcome.

The boxplot in Figure 5 shows that successful campaigns (Yes) tend to have a slightly higher median number of comments, compared to campaigns that did not enter the market (No). This boxplot aligns with the Mann_Whitney U Test results, demonstrating that the number of comments does have a significant impact on market entry success.
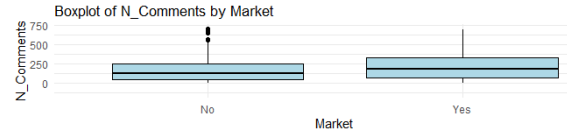

Figure 5: Boxplot Comments

4.3.2.2 H2b: FAQs

To continue, hypothesis (H2b) predicts that more FAQs increase the chances of market entry, compared to campaigns with fewer FAQs.

For the FAQs, the median number of products that successfully entered the market (Mdn = 7.00), did not differ significantly compared to products that have not entered the market (Mdn = 6.00) as shown in Tables 1 and 2. The Mann_Whitney U Test in Table 5 also indicates that the FAQs have no statistically significant ($p >$ .05) effect on market entry (W = 9,696.50, n = 300, p = .413).

In the boxplot in Figure 6 it is clear that both the unsuccessful market entries (No), and successful market entries (Yes) have a similar number of FAQs. This visual aligns with the results from the Mann_Whitney U Test, revealing that the number of FAQs does not have a significant impact on market entry success.

Figure 6: Boxplot FAQ

4.3.2.3 H2c: Updates

Hypothesis (H2c), states that campaigns with a higher number of updates are more likely to enter the market than campaigns with limited updates.

The median number of updates is 18.00 (Table 1) for market entry, and for no market entry the median is 15.00 (Table 2), so there is no substantial difference. The Mann_Whitney U Test in Table 5 (W= 9,009.00, n = 300, p = .076) indicates that the result is marginally significant given the p-value = .076. Therefore, we cannot state that with a higher number of updates, there are more chances for market entry.

The boxplot in Figure 7 has a very similar number of updates for both campaigns that entered the market successfully (Yes), but also for unsuccessful market entries (No). This boxplot aligns with the results of the Mann_Whitney U Test, that the number of updates does not have a clear significant impact on market entry success, but there is a marginally significant impact.

Figure 7: Boxplot Updates

4.3.3 H3: Funding Period

The third hypothesis (H3) predicts that campaigns with shorter funding periods are more likely to enter the market, compared to campaigns with a long funding period.

The median of the funding period in days for projects that have successfully entered the market (Mdn = 32.00) does

not significantly differ from the median funding period in days of campaigns that were unsuccessful in entering the market (Mdn = 32.50), as shown in Tables 1 and 2. The outcomes of the Mann_Whitney U Test in Table 5 (W = 10,211.00, n = 300, p = .919), show that the funding period does not have a significant effect on the market entry success given the *p-value* > .05. Therefore, we can state that a shorter funding period does not increase the likelihood for campaigns to enter the market, compared to campaigns with longer funding periods.

Figure 8 shows that both the successful campaigns (Yes) and unsuccessful campaigns with no market entry (No) have similar funding periods. This boxplot corresponds with the outcomes of the Mann_Whitney U Test, indicating that the length of the funding period has no significant impact on market entry successes.
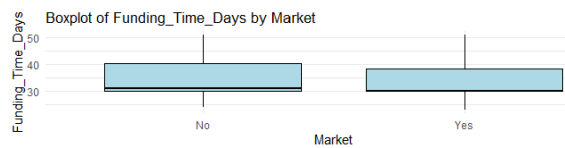
Figure 8: Boxplot Funding Time Days

4.3.4 H4: Overfunding

Lastly, the fourth hypothesis (H4) states that campaigns that are overfunded are often more successful in bringing the project to market than campaigns where the goal has barely been met.

In comparison campaigns that were able to enter the market have a median (Mdn = 579.50) which is much higher than the median of campaigns that did not enter the market (Mdn = 395.50) (Tables 1 and 2). The Mann_Whitney U Test (Table 5) shows that (W = 8,135.00, n = 300 p = .003) because of the significant *p-value* <.05, overfunded campaigns are often more successful in bringing the project to market, compared to campaigns where the project is less overfunded.

Figure 9 visualizes the distribution of funding percentages of projects that did enter the market (Yes) and that did not (No). Figure 9 shows similar median values, interquartile ranges (IQR), and general distribution between the ones that entered the market and those that did not. Although the boxplot does not show a significant difference, we can conclude from the Mann_Whitney U Test that there is a significant effect.
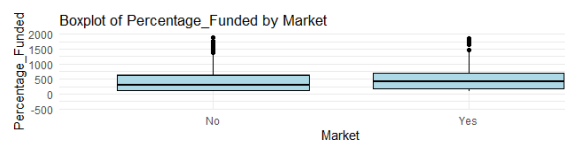

Figure 9: Boxplot 'Percentage_Funded'

4.3.5 Additional variables

Besides the hypotheses three other variables have been tested, these are 'End_Funding_Campaign', 'Last_Update', and 'Amount_Raised'.

Starting with the 'End_Funding_Campaign' which is the days since the campaign has ended. The median number for projects that entered the market that have ended more recently (Mdn = 1,667.50), is lower compared to campaigns that were unsuccessful in entering the market (Mdn = 2,292.50) (Tables 1 and 2). The Mann_Whitney U Test (W = 10,980.50, n = 300, p = .331) (Table 5) indicates that the 'End_Funding_Campaign' is not significant (p > .05).

The distribution shown in Figure 10 in the boxplot indicates that the market entry category (Yes) is shifted slightly more towards the more recently ended funding campaigns (lower values), compared to the no market entry category (No). But the boxplot also shows a large overlap and similar medians for both market entry and no market entry. This aligns with the Mann_Whitney U Test results, that there is no significant difference in market entry between campaigns that have ended a long time ago, and campaigns that have ended recently.
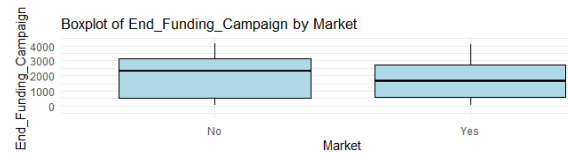

Figure 10: Boxplot end funding campaign

To continue with the 'Last_Update', which is counted as the days since the last update.

The median of the days since the last update for campaigns that have entered the market (Mdn = 675.00) is significantly different from the median of campaigns that were unsuccessful in entering the market (Mdn = 1,670.00) (Tables 1 and 2). Whilst looking at the outcomes of Table 5 of the Mann_Whitney U Test (W = 11,674.00, n = 300, p = .053) we can say that the number of days since the last update has a marginally significant impact on a successful market entry (p > .05).

As shown in Figure 11, the distribution of the campaigns that have entered the market (Yes) is more shifted towards recent updates, compared to those that did not enter the market (No). Even though the boxplot does show small differences there is no clear significant difference, but there is a marginally significant difference between the market entry and no market entry campaigns.
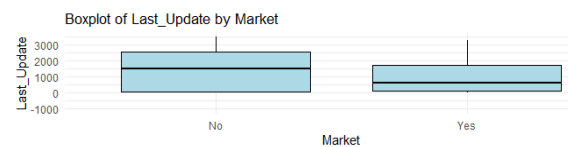

Figure 11: Boxplot last update

Lastly, the 'Amount_Raised', is the total amount of money the campaign raised. For products that have entered the market the median (Mdn = 121,884.00) is much higher compared to the median of campaigns that did not enter the market (Mdn = 60,570.00) (Tables 1 and 2). The Mann_Whitney U Test (Table 5) shows that (W = 7,271.00, n = 300, p < .001) the amount raised does have a significant impact on market entry (p < .001).

Figure 12 shows the distribution of the 'Amount_Raised'. Campaigns that have entered the market (Yes) show a higher amount raised, compared to campaigns that have not entered the market (No). This adds to the idea that the higher the amount of funding is associated with a bigger chance of market entry.
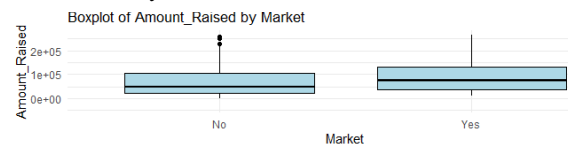

Figure 12: Boxplot amount raised

4.3.6 Exploratory Analysis

Lastly, the Random Forest analysis is shown in Tables 6 and 7. This analysis is exploratory and was chosen to implement

because it indicates what variables are most important in predicting the outcome regarding market entry.

Starting with the OOB (out-of-bag) estimate of the error rate. The OOB is 34.67%, this indicates that around 34.67% of the predictions made by the model are incorrect, providing a measure of the generalization errors of the model, based on the training data.

The confusion matrix shown in Table 6 summarizes the model's performance in predicting the non-market entry shown as '0' in the table, and the market entry shown as '1' in the table. The Random Forest analysis was presented and discussed during the COST FINAI Fintech and AI in Finance Training at the University of Twente [2]. For no market entry (0), the error rate is 18.56%, which indicates that the model predicts no market entry correctly 81.44% of the time. For market entry (1) the error rate is 64.15%, showing that the model predicts market entry properly 35.85% of the time.

Confusion Matrix	0	1	class.error
0	158	36	0.1855670
1	68	38	0.6415094

Table 6: Confusion matrix

To measure the importance of variables within the random forest model, the 'MeanDecreaseAccuracy' and 'MeanDecreaseGini' metrics are used. 'MeanDecreaseAccuracy_0' shows the change in accuracy if the no market entry '0' would be removed as a variable, the 'MeanDecreaseAccuracy_1' does the same, but for market entry '1'.

According to both the MeanDecreaseAccuracy and MeanDecreaseGini, 'Last_Update' is the most important variable, which indicates that the timing of the last update from the campaign has a significant impact on the model's accuracy (Table 7).

The 'Amount_Raised' and 'N_Backers are also highly important according to the outcomes in Table 7, indicating that the amount of money raised and the number of backers of the campaign are crucial factors for the determination of market entry success.

'End_Funding_Campaign', and 'N_Updates' are important determants for the no market entry class '0', but have a negative impact on the market entry class '1'.

The predictors 'Last_Update', 'Amount_Raised', and 'N_Backers' are the top predictors, heavily influencing the ability of the model to predict the market entry outcome accurately.

	MeanDecreaseAccuracy_0	MeanDecreaseAccuracy_1	MeanDecreaseAccuracy	MeanDecreaseGini
Percentage_Funded	3.523608	-1.5106082	2.2730901	16.27253
Amount_Raised	4.972165	3.3928336	6.6992293	18.37092
End_Funding_Campaign	9.506656	-6.9606011	4.3365139	15.99695
Funding_Time_Days	-1.219525	-0.5640556	-1.2494654	8.75158
N_Backers	5.717758	4.9062003	8.3838577	17.48321
N_FAQ	-1.408651	0.6857471	-0.8439888	9.71017
N_Updates	7.359908	-5.3109178	3.4849969	12.87688
Last_Update	11.705855	1.0951015	11.1340028	20.47774
N_Comments	7.800716	-0.7008141	6.6499941	16.76272

Table 7: MeanDecreaseAccuracy and MeanDecreaseGini

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[2] https://www.digital-finance-msca.com/cost-finai-phd-school-2024

5. DISCUSSION
5.1 Summary of the Findings
The purpose of this paper was to explain how the achievements of funding goals in reward-based crowdfunding influence the post-funding market entry. With a specific focus on the technology gadgets sector in the United States.

Key findings for the market entry distribution: out of all 300 campaigns that have been analyzed, only 106 (35.33%) have entered the market successfully, and 194 (64.67%) have not entered the market.

The Mann_Whitney U Test measured the impact of different variables on market entry. The variables were the number of backers, engagement (number of comments, number of FAQs, number of updates), funding period, amount raised, last update, percentage funded, and the end of the funding campaign.

Key findings include:

1. Backers: a higher number of backers is significantly associated with market entry successes.
2. Engagement: within the engagement metrics (comments, FAQs, and updates), only the number of comments showed a significant effect on market entry success. Furthermore, FAQs did not show a statistically significant result, but the number of updates did show a marginally significant result.
3. Funding period: because the length of the funding period did not significantly affect market entry success, it can be said that the campaign's duration is less critical compared to other variables.
4. Overfunding: campaigns that were overfunded (meaning exceeding the initial funding goal) are more likely to enter into the market successfully. This finding aligns with the idea that exceeding funding goals signals a strong market interest and potential demand.
5. Amount raised: the total amount a campaign raises significantly impacts market entry success; a higher amount correlates with a larger likelihood of market entry.
6. Additional variables: Among the additional variables, the timing of the last update played a crucial role in predicting market entry success. This highlights the importance of maintaining communication with backers, even after the campaign has ended.

5.2 Interpretation of Results
The market entry distribution showed that 35.33% of the campaigns successfully entered the market, whilst 64.67% did not. The average percentage funded is 1562.66% this is much higher than the initial 100% goal. This outcome underlines that even though campaigns reach their funding goals and go well beyond them (mean = 1562.66%) they still have challenges entering the market. That nearly 2/3 of successfully funded campaigns do not enter the market, shows that there might be a need for more support and resources for founders in the post-funding phase. Effective post-campaign planning, keeping backers engaged, and strategically allocating the raised funds are important to overcoming challenges, and reaching market entry.

Hypothesis 1: The number of backers of a crowdfunding campaign positively relates to the success rate of market entry. The positive relationship between the number of backers and market entry success indicates that a broad range of

backers can enhance the early market validation and momentum for a product. Because of early validation, additional customers/partners could be attracted, making market entry easier.

Hypothesis 2a: The number of comments on a crowdfunding campaign positively relates to the success rate of market entry. Hypothesis 2b: The number of FAQs a crowdfunding campaign has posted positively relates to the success rate of market entry. Hypothesis 2c: The number of updates on a crowdfunding campaign positively relates to the success rate of market entry. Engagement through comments, which showed a small significant effect, could indicate that the interaction between the backers and campaign creators is active, indicating trust and a loyal customer base. Nevertheless, the FAQs and updates are not significant, which might indicate that merely providing the information is not enough and that the quality and reactivity of engagement are more important.

Hypothesis 3: The duration of a reward-based crowdfunding campaign negatively relates to the success rate of market entry. The finding that the length of the funding period does not have any significant effect on market entry, does not align with the study that if a funding period is long (between 45 and 60 days), there might be a lack of support and confidence in the product (Mollick, 2014).

Hypothesis 4: Overfunded crowdfunding campaigns positively relate to higher success rates in bringing the project to market compared to campaigns that have barely met their funding goals. Overfunding is a critical factor for market entry success. Campaigns that surpass their initial goal, are more likely to enter the market compared to campaigns that are less (over)funded. Overfunded campaigns are likely to benefit from more visibility, which can result in a more robust market position post-campaign. In addition, the significant impact of the amount raised reinforces the fact that financial resources are crucial to support campaigns from a successfully funded campaign to market entry.

Concerning the additional variables, the amount raised has a significant effect on market entry. Indicating that campaigns which raised a higher amount of money, are more successful in entering the market compared to campaigns raising less. The last update and end of the funding campaign do not have a significant effect on market entry.

The exploratory analysis using the random forest model provides a more detailed understanding of the factors that influence market entry success the most. 'Last_Update', 'Amount_Raised', and 'N_Backers' are the top predictors that heavily influence the model to predict market entry accurately. No market entry can be predicted by the model with 81.44%, and market entry can be predicted with 35.85% accuracy. Therefore, we can state that no market entry is easier to predict compared to market entry, but still, the OOB (out-of-bag) estimate of error rate is high (34.67%), which indicates that 34.67% of the predictions made by the model are inaccurate.

5.3 Limitations
This study has several limitations. First of all, findings are solely from successful reward-based crowdfunding campaigns, in the gadget segment of the technology category, and therefore not generalizable for all other categories. Secondly, because only publicly available data will be used, and a big part of the data collection was done manually, there is a possibility that the information is inaccurate. Furthermore, the data is limited to a set date (20th of April 2024), which limits campaigns to be included in the market entry category. This also means that campaigns that might have entered the market for example 5 years ago, but have gone bankrupt or stopped selling the product for a certain reason are also put into the no-market entry category, even though they might have entered the market at a certain point in the past.

Additionally, the last update has a recency bias, because older campaigns that have stopped updating might still be successful in market entry, but it cannot be reflected through the last update date, therefore, this finding no longer has significance for this research. Moreover, the amount raised is also not a clear indicator, since the amount is relative. Some campaigns have a high funding goal initially, making the amount raised automatically higher, for this reason only the percentage funded can be perceived as important (significant) for this research since it has a more accurate representation relatively speaking.

5.4 Future Research
Further research could enhance the understanding of post-funding market entry in reward-based crowdfunding. This could be done by broadening the scope of the research, including more sectors, or larger sectors. For example, looking at the entire technology category on Kickstarter. Furthermore, other regions and countries could be added to the research, instead of focusing solely on the United States. This would help to determine if the findings are applicable across different countries and sectors.

Moreover, with a longitudinal study, crowdfunding campaigns can be studied for a longer period. Following campaigns right after they have reached their goals, for a longer period, could help to provide deeper insights into the long-term effects of crowdfunding success on market entry.

Lastly, for future research, the impact of different crowdfunding platforms could be explored. Since some platforms have different features and community dynamics, this might impact market entry success.

6. CONCLUSION
This research paper contributes to the understanding of how reward-based crowdfunding success influences the post-funding market entry, specifically in the high-tech gadgets sector within the United States. A key finding was that merely 35.33% of campaigns entered the market, even though the average percentage funded is 1562.66% above the initial funding goal, stressing challenges after successful funding.

The most critical factors influencing the market entry are the number of backers and overfunding. Campaigns that have more backers, and exceed their initial funding goals, are more likely to enter the market. Additionally, engagement through comments also played a crucial role in entering the market.

To conclude, whilst the achievement of funding goals is essential, engagement through comments, and sufficient financial resources are key to bringing crowdfunded projects to market. Even with enough funding challenges after successful funding are almost a given.

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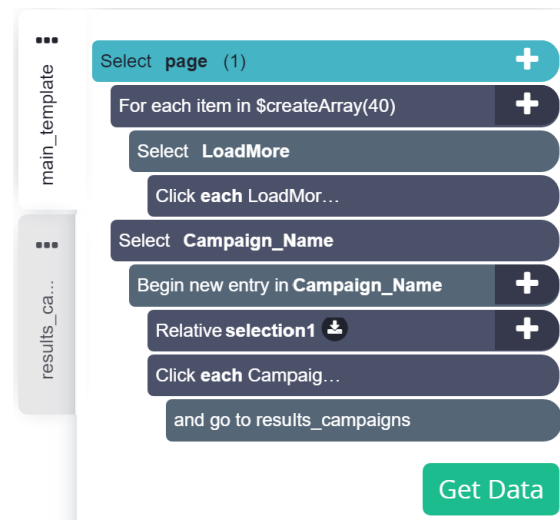
7. APPENDIX

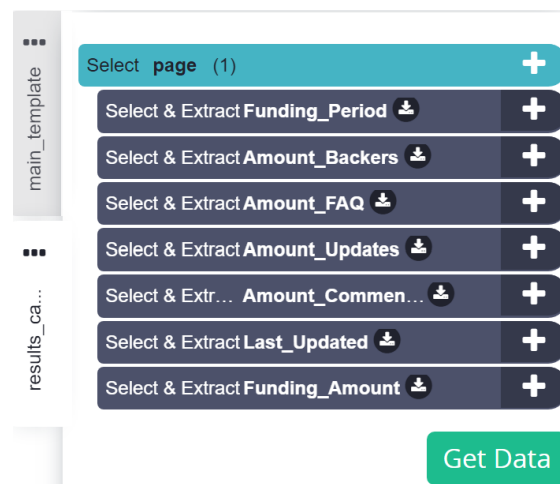**Figure 13: ParseHub data entry to web scrape main_template**

Figure 14: ParseHub data entry to web scrape the results_campaign.