OVERFUNDING IN CROWDFUNDING ON STARTNEXT AND KICKSTARTER PLATFORMS – ARE PRODUCT OFFERINGS MORE SUCCESSFUL THAN OTHER PROJECTS?

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Abstract: *This study provides a first overview of the impact of offering a product besides other characteristics on project overfunding on two large platforms Startnext and Kickstarter based on 4,303 successfully overfunded European projects in the time between 2013 and 2015. In general, the level of overfunding in median equals to 10% on Startnext and 22% on Kickstarter, but varies to a high degree, depending on the industry category, as indicated by the mean of 55% on Startnext and 257% on Kickstarter. Results from regression analysis show that launching a product is significantly increasing the level of overfunding only for some categories of campaigns and in different ways on the two platforms. For Startnext and Kickstarter a comparably strong and medium effect of product offerings on the level of overfunding is only observable for projects from the Technology and Fashion category, respectively. Thus, the comparison reveals important differences which might be potentially interesting for investors, SMEs, founders and their advisors. Future research should focus on larger samples of successful and unsuccessful projects in order to provide more precise results.*

Keywords: *Crowd, Overfunding, Product, Startnext, Kickstarter.*

1 INTRODUCTION

Compared to other more traditional ways of financing, crowdfunding is a possibility to get funds cheaper, because founders are able to address a vast public and, therefore, find backers with highest interest in the product or reward. Furthermore, many creators are interested in direct feedback from customers on their products allowing for optimal product development early on. Moreover, founders are enhanced to link their project with their social media accounts which will provide them with feedback from a larger audience [1]. This way crowdfunding provides a pretest for the sell ability of products before going to the market. Founders of European projects containing product offerings, however, often do not know which platform to choose for their projects to succeed [2].

This study provides a first overview of the impact of product offerings on the level of overfunding for 4303 European projects successfully funded by crowds on the platforms Startnext and Kickstarter in the time between 2013 and 2015. Overfunding describes the amount of additional funding founders can use beyond the prespecified funding goal of the project. The goal of this research is to offer general and industry specific information together with clear recommendations for founders on which platform to choose for their product offerings to obtain the highest possible amount of money. A high level of overfunding identified for a particular platform, can be potentially interesting for founders having innovative ideas and looking for much more money faster as planned. Overfunding can be also highly beneficial in terms of increased product

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publicity or higher products sales [3]. Crowdfunding platforms are intermediaries in two-sided markets bringing together project founders searching for funding and funders willing to provide money [4].

For the purposes of this study a sample of 4,303 successfully funded European projects (hand-collected) is used. In particular, the information on the following variables is collected: project category (i.e. Art, Technology etc.), initial funding goal, funding, funding period (start and end) and whether a product was offered as opposed to gifts or no rewards in a campaign.

Although some publications refer to overfunding as a phenomenon of crowdfunding (Malave [5]; Mollick [6]; Barbi and Bigelli, [7]; Gabison [8]; Frydrych et al. [9]), still many questions remain unanswered [10]. A growing body of literature focuses on drivers of success determining the level of funding, e.g. Gerber et al. [11], Malave [12], Frydrych et al. [13], Haas et al. [14], Mollick [15] and Kuo [16]. For instance, Koch relates project overfunding primarily to campaign characteristics, project information disclosure, founder-related, and platform-related aspects as well as funding behaviors [17]. This study adds to the growing body of literature on drivers of success determining the level of funding, but addresses the topic with a product centered approach applied to samples stemming from two important platforms. The comparison reveals important differences which might be potentially interesting for investors, SMEs, founders and their advisors.

The rest of the paper proceeds as follows. Section 2 presents the data, while section 3 Section shows the results of the analysis of European projects' key characteristics with the associated implications for project founders. Section 4 concludes the paper.

2. DATA AND METHODOLOGY

This study focuses on the overfunding of over 4,303 European projects successfully funded by crowds on the platforms Startnext and Kickstarter in the time between 2013 and 2015. The hand-collected sample from Startnext contains 1,115 records, while the dataset from Kickstarter contains 3,188 records belonging to categories that both platforms have in common.

The funding goals and funding amounts of projects from Kickstarter platform are translated into Euro amounts by applying the respective average exchange rate in a year. Overfunding describes the amount of additional funding founders can use beyond the pre-specified funding goal of the project and is calculated by subtracting the funding goal amount from the finally obtained funding (overfundung = funding – funding goal).

For comparison purposes, 4,303 records from the following common 10 categories are used: Art, Comics, Design, Fashion, Games, Journalism, Music, Photography, Technology and Video. For the following Wilcoxson-rank-sum-tests, several independent project characteristics common for projects stemming from both platforms are identified: funding goal (in €), funding (in €), overfunding (in €), overfunding (in % of the initial funding goal), campaign duration (in days) and product offering versus gift or no reward (yes or no). **Table 1** presents a general overview of the data.

In general, the level of overfunding in median equals to 10 % on Startnext and 22% on Kickstarter, but varies to a high degree as indicated by the mean of 55% on Startnext and 257% on Kickstarter.

Platform / N	mean	p50	sd	min	max	Variable Name
Startnext						
1115	7 229,76	5 000,00	9 564,35	100,00	125 000,00	Funding Goal in EUR
1115	8 844,29	5 238,00	13 284,53	151,00	165 755,00	Funding in EUR
1115	1 614,54	420,00	6 683,22	0,00	149 755,00	Overfunding in EUR
1115	0,55	0,10	10,25	0,00	341,94	Overfunding in %
1115	8,41	8,52	1,00	4,61	11,74	Funding Goal in EUR (ln)
1115	8,59	8,56	0,98	5,02	12,02	Funding in EUR (ln)
1115	5,85	6,04	1,86	0,00	11,92	Overfunding in EUR (ln)
1115	49,44	45,00	21,11	4,00	120,00	Duration (in days)
1115	0,79	1,00	0,41	0,00	1,00	Product (yes or no)
Kickstarter						
3188	10 813,80	3 342,00	26 150,40	1,00	744 306,00	Funding Goal in EUR
3188	26 482,73	4 774,50	113 754,70	1,00	3 217 126,00	Funding in EUR
3188	15 668,93	614,00	100 604,90	0,00	3 044 912,00	Overfunding in EUR
3188	2,57	0,22	30,15	0,00	1 275,00	Overfunding in %
3188	7,94	8,11	1,84	0,00	13,52	Funding Goal in EUR (ln)
3188	8,44	8,47	1,88	0,00	14,98	Funding in EUR (ln)
3188	6,35	6,42	2,78	0,00	14,93	Overfunding in EUR (ln)
3188	31,32	30,00	10,18	2,00	74,00	Duration (in days)
3188	0,91	1,00	0,28	0,00	1,00	Product (yes or no)
Total						
4303	9 885,10	3 789,00	23 081,56	1,00	744 306,00	Funding Goal in EUR
4303	21 912,23	5 049,00	98 446,53	1,00	3 217 126,00	Funding in EUR
4303	12 027,13	520,00	86 876,77	0,00	3 044 912,00	Overfunding in EUR
4303	2,05	0,17	26,49	0,00	1 275,00	Overfunding in %
4303	8,06	8,24	1,68	0,00	13,52	Funding Goal in EUR (ln)
4303	8,48	8,53	1,69	0,00	14,98	Funding in EUR (ln)
4303	6,22	6,25	2,58	0,00	14,93	Overfunding in EUR (ln)
4303	36,01	30,00	15,98	2,00	120,00	Duration (in days)
4303	0,88	1,00	0,32	0,00	1,00	Product (yes or no)

Table 1: Startnext and Kickstarter Projects – A General Overview of the Sample

3. RESULTS

The tables 2 and 3 show the results of pre-tests consisting of an analysis of Pearson Rank Sum Correlations of various variables used in the study and of Wilcoxon Rank Sum Tests applied to them for each industry category separately. Next, a more in-depth regression analysis of the phenomenon follows.

Results from Wilcoxon rank-sum tests suggest that projects seem to significantly differ in terms of funding amounts, overfunding and length of campaign duration across the categories. **Table 2** shows that the level of funding and as a consequence of overfunding is significantly positively (on a 1% confidence level) and highly affected by the pre-specified funding goal of a particular campaign. Both are also significantly positively impacted by the introduction of product offerings as opposed to gifts or no rewards to a campaign. This table reports Pearson rank sum correlation coefficients, p-values and numbers of observations, while * indicates significance at the 1% level.

As further shown in **Table 3**, Wilcoxon-Rank-Sum-Tests confirm significant differences regarding the levels of overfunding and the impact of product offerings on both platforms in all categories except journalism. However, most of the time the effect of launching a product on overfunding is twice as high on Kickstarter as compared to Startnext.

	funding_eur	ln_funding_e	overfunding	ln_overfunding	funding_goal	ln_funding_goal	duration	product_dv
funding_eur	1							
	4303							
overfunding	0.9767*	0.3264*	1					
	0,0000	0,0000						
	4303	4303	4303					
ln_overfun~g	0.3727*	0.7546*	0.3162*	1				
	0,0000	0,0000	0,0000					
	4303	4303	4303	4303				
funding_goal	0.5890*	0.5548*	0.4018*	0.3997*	1			
	0,0000	0,0000	0,0000	0,0000				
	4303	4303	4303	4303	4303			
ln_funding_g	0.3098*	0.9249*	0.2062*	0.5526*	0.5449*	1		
	0,0000	0,0000	0,0000	0,0000	0,0000			
	4303	4303	4303	4303	4303	4303		
duration	0,0095	0.1386*	-0,0005	0,0165	0.0426*	0.1955*	1	
	0,5313	0,0000	0,9734	0,2778	0,0052	0,0000		
	4303	4303	4303	4303	4303	4303 4303	4303	
product_dv	0.0515*	0.1005*	0.0429*	0.1477*	0.0585*	0.0648*	-0.0489*	1
	0,0007	0,0000	0,0049	0,0000	0,0001	0,0000	0,0013	
	4303	4303	4303	4303	4303	4303	4303	4303

Table 2: Pearson Rank Sum Correlations

	Art.	Comics	Design	Fashion	Games	Journalism	Music	Photography	Technology	Video
funding_goal	0.0006	**0.3430**	0.0715	**0.7235**	**0.5222**	0.0009	0.0000	**0.4440**	**0.1546**	0.0000
funding_eur	0.0845	0.0218	0.0003	**0.2657**	0.0080	0.0018	0.0000	**0.8235**	0.0083	0.0000
overfunding	0.0001	0.0000	0.0000	0.0959	0.0008	**0.4316**	0.0000	0.0030	0.0002	0.0000
overfunding_proc	0.0000	0.0003	0.0000	0.0427	0.0023	0.0946	**0.8483**	0.0000	0.0001	0.0609
duration	0.0000	**0.1674**	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
product	0.0000	0.0070	0.0000	0.1728	n/a	**0.6040**	0.0356	0.0000	**0.3981**	0.0000

Table 3: Results (p-values) of Wilcoxon-rank-sum Tests Applied to Projects from Individual Industry Categories of Kickstarter and Startnext Platforms

In the following, Ordinary Least Squares (OLS) Regressions of various project characteristics on the level of project overfunding are performed in order to gain more precise insights.

As shown in **Table 4**, columns (1)-(3) product offerings seem to impact the level of project overfunding to a relatively high degree. However, according to **Table 4**, column (4) compared to column (5) this effect seems to be driven by Kickstarter campaigns only. The next analysis step should provide a more differentiated picture of the impact of product offerings on overfunding for projects stemming from various industry categories on both platforms.

In comparison to **Table 4**, one can observe in **Table 5** that after including industry variables the effect of product offerings on the level of overfunding disappears in columns (1)-(3), but reappears once interaction terms consisting of product offerings and industry category dummies are included in columns (4)-(6). This makes sense as product offerings may have a different impact in different categories and this effect might be also different across the two analyzed platforms.

	(1) Ln_overfun	(2) Ln_overfun	(3) Ln_overfun	(4) Ln_overfun	(5) Ln_overfun
	All	All	All	Kickstarter	Startnext
Ln_funding_goal (in EUR)	0.8672***	0.8742***	0.8702***	0.8930***	0.6676***
Duration	-0.0143**	-0.0045*	-0,0041	-0,0082	0,0004
Product_dv	0.8515**	0.6993**	0.9309**	0.9131**	0,3810
Startnext_dv		-0.7420**	-0,2942		
Product*Startnext			-0,539		
Constant	-1.0039*	-1.0882**	-1.2804**	-1.3165	-0,0833
Std. er. clustering on industry level	Yes	Yes	Yes	Yes	Yes
N	4303	4303	4303	3188	1115
R-squared	0,3254	0,337	0,3381	0,3662	0,1367
Adj. R-squared	0,325	0,3364	0,3373	0,3656	0,1343

Table 4: Product Offerings and Project Overfunding in General

This table reports the results of OLS regressions of various project characteristics on the level of project overfunding (ln_overfun). As compared to columns (1)-(3), columns (4)-(5) separately focus on the Kickstarter and Startnext project campaigns. Standard errors are clustered at the industry category level. *,**,*** indicate significance at the 10, 5, and 1% level, respectively.

This table reports the results of OLS regressions of various project characteristics on the level of project overfunding (ln_overfun) excluding and including interaction terms consisting of product offerings and industry category dummy variables (the omitted category – baseline – is journalism). As compared to columns (1)-(3), columns (4)-(6) contain additional interaction terms. Standard errors are clustered at the industry category level. *,**,*** indicate significance at the 10, 5, and 1% level, respectively.

As shown in column (5) of **Table 5**, for Kickstarter an effect of product offerings on the level of overfunding is observable in various categories. A statistically significantly positive and economically high effect is identifiable for the Design, Photography and Technology categories where a product-driven increase in project overfunding of 653 EUR to 1646 EUR is observable. Moreover, a significant and economically medium high impact of product offerings is identifiable for project in the Fashion (ca. 285 EUR) and Comics (ca. 110 EUR) category, while a significant negligible positive and negative effect (< 50 EUR) shows up in the Video and Art category, respectively.

Table 5, column (6) shows for Startnext projects from the Technology category a significantly positive and economically high effect of product offering on the level of overfunding where a product-driven increase in overfunding of 1868 EUR is observable. Furthermore, a significant and economically medium high impact of product offerings is identifiable for project in the Fashion (ca. 285 EUR) category, while significant negligible effects (< 50 EUR) manifest for projects from Art, Comics, Music categories (positively) and Design, Photography and Video categories (negatively).

In sum, product offerings in Technology and Fashion related campaigns show a similar strong and medium effect, respectively, on both platforms. Based on these differences between Startnext and Kickstarter, founders can decide for an appropriate product placement and prepare budgets accordingly including the possibility to reach much more money faster as planned. However, a high level of overfunding might signal to funders potential delivery problems because of a high demand for a promised product.

Variable	(1) Ln_overfun	(2) Ln_overfun	(3) Ln_overfun	(4) Ln_overfun	(5) Ln_overfun	(6) Ln_overfun
	All	Kickstarter	Startnext	All	Kickstarter	Startnext
Ln_funding_goal (in EUR)	0.7633***	0.7638***	0.5633***	0.7568***	0.7556***	0.5447***
Duration	-0,0029	-0,0056	-0,0008	-0,003	-0,005	-0,001
Product_dv	0.6248*	0,6024	-0,0006	0.5777**	0.2098***	1.0259***
Startnext_dv	-0,0118			-0,2532		
Product*Startnext	-0,4183			-0,1347		
Art Category_dv	-0.2757*	-0,1424	-1.0579***	-0.0736**	0.5026***	-0.6028***
Comics Category_dv	0.7077***	0.8198***	-0.2397**	0.4899***	0.4820***	0.1418*
Design Category_dv	1.1266***	1.4219***	0.3246***	0,2917	-0.5678***	0.9278***
Fashion Category_dv	0,134	0,1765	0,1312	-0.5941***	-0.7042***	-0.5778***
Games Category_dv	1.5621***	1.6307***	1.1733***	1.5471***	1.8247***	0.7292***
Music Category_dv	-0,075	-0.3989**	0.4027***	0.4824**	0,1498	0.8251***
Photography Category_dv	-0.4123***	-0,165	-0.8122***	-0.6020***	-1.7001***	-0.1111***
Technology Category_dv	1.3660***	1.4444***	0.3641**	-0.8657***	-0.9270***	-1.7989***
Video Category_dv	-0.3113***	-0.4688***	0,0572	0.2429***	-0.2741***	0.9737***
Product*Art Category				-0.2454*	-0.5268***	-0.8420***
Product*Comics Category				0,2329	0.5424***	-0.7582***
Product*Design Category				0.9107***	2.2454***	-1.0585***
Product*Fashion Category				0.7789***	1.1510***	0.3283***
Product*Games Category				(omitted)	(omitted)	(omitted)
Product*Music Category				-0.5982***	-0.3708***	-0.8585***
Product*Photography Category				0,2481	1.8273***	-1.2404***
Product*Technology Category				2.3235***	2.6650***	1.9577***
Product*Video Category				-0.8113***	-0.1453***	-1.5854***
Constant	-0,5893	-0,5069	1,077	-0,4715	-0,2575	0,664
Std. er. clustering on industry	Yes	Yes	Yes	Yes	Yes	Yes
N	4303	3188	1115	4303	3188	1115
R-squared	0,4028	0,4440	0,2035	0,4112	0,4528	0,2190
Adj. R-squared	0,4009	0,4419	0,1949	0,4082	0,4493	0,2047

Table 5: Product Offerings and Project Overfunding by Category

4. CONCLUSION

This study provides a first overview of the impact of offering a product besides other characteristics on project overfunding on two large platforms Startnext and Kickstarter based on 4,303 successfully overfunded European projects in the time between 2013 and 2015. The aim of this research is to offer general and industry specific recommendations for founders on which platform to choose for their projects to reach the highest possible funding. In general, the level of overfunding in median equals to 10% on Startnext and 22% on Kickstarter, but varies to a high degree, depending on the industry category, as indicated by the mean of 55% on Startnext and 257% on Kickstarter. Results from Wilcoxon-rank-sum tests suggest that in the categories art, design and video, projects significantly differ regarding all characteristic. In these categories the level of project overfunding is significantly higher on Kickstarter (up to 63%). Results from regression analysis show that launching a product is significantly increasing the level of overfunding only for some categories of campaigns and in different ways on the two platforms. For Startnext and Kickstarter a comparably strong and medium effect of product offerings on the level of overfunding is only observable for projects from the Technology and Fashion category, respectively. Thus, the comparison reveals important differences which might be potentially interesting for (inter-)nationally acting investors, SMEs, founders and their advisors. Future research should focus on larger samples of successful and unsuccessful projects in order to provide more precise results.

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