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How to create an engagement-friendly environment in reward-based crowdfunding?

Abstract

Crowdfunding appears to be an innovative way of fundraising various projects. Although it is a relatively new and unique way of financing, competition for potential backers increases every year. While recent works have explored the role of engagement and involvement in crowdfunding, there is still a lack of understanding of how creators can stimulate backers' activity. Therefore the aim of this paper is to identify and classify the methods used for crowdfunding by the top creators to boost and maintain backer engagement. Drawing from the Theoretical Model of Customer Engagement and Theory of Intrinsically Motivating Instruction, we propose a theoretical model that is backer engagement-based. It presents the unique role of involvement and participation in engagement and its interrelationship with value and community involvement. We investigate the top 30 most funded campaigns on Kickstarter in the tabletop games category. Based on our cross-case study, we identify and categorise tactics that create engagement-friendly environments. Our findings suggest that over time creators tend to focus on shorter but more dynamic campaigns with the higher engagement of backers. The creators of the best campaigns use similar tactics that affect both engagement and involvement. The important but often ignored factor that influences engagement is social interaction.

Keywords

crowdfunding | entrepreneurship | involvement | crowdsourcing | engagement

JEL Codes

G21, G41, D81

1. Introduction

The aim of this paper is to identify and classify the methods used by top creators on crowdfunding to boost and maintain backer engagement. Crowdfunding is a relatively new fundraising method (Yang et al., 2020), but it is already making a significant difference for current and potential entrepreneurs (Manning & Bejarano, 2016). It enables fundraisers not only to raise capital from the supporters (called 'backers' in crowdfunding) but also to gather feedback on the further development of the project (Cornelius & Gokpinar, 2020). There are now thousands of projects

competing for the attention of backers (Zhang & Chen, 2019).

That attention can effectively be attracted by motivating the audience to be involved in the campaign (Celsi and Olson, 1988). Involvement is also a crucial factor in consumers' product choices (Behe *et al.*, 2015). However, the involvement of customers in reward-based crowdfunding projects goes beyond the provision of financial resources. Backers also use crowdfunding platforms to share ideas and suggestions for the products they support (Cornelius & Gokpinar, 2020). This makes it doubly important for crowdfunding to build the involvement of its audiences.

Two types of involvement exist. The first type – situational involvement (SI) – reflects product involvement that occurs only in specific situations, such as a purchase. The second type – enduring involvement (EI) – represents an ongoing concern with a product that transcends situational influences. Consumers also experience SI during the purchase process for high-risk products. Once the purchase has been made, consumer arousal and time spent thinking about the product decline as purchase needs and product novelty subside (Richins & Bloch, 1986). Crowdfunding in that regard is quite unique. First, even the initial decision about a purchase can be changed as long as the campaign is not finished. It means the decision making process is more dynamic, and often it requires longer customer involvement although in a limited time. Second, in the case of crowdfunding, the period from the final decision to the purchase (the last day of the campaign) and delivery of the product usually lasts from a few months up to several years in extreme cases.

While what motivates people to participate in crowdfunding has been studied (Chakraborty & Swinney, 2018, 2021; Rodriguez-Ricardo et al., 2018), it is still unclear how customer involvement is changing during this time and what can affect these changes. Research to date has focused primarily on the role of the product in building involvement and has indicated that there are low and high involvement products. In the case of crowdfunding campaigns though, there is a whole spectrum of motivators other than the product itself that may induce involvement in the campaign. The impact of such incentives both on customer involvement itself and indirectly on the financial result of the campaign remains unclear.

The theoretical lens that allows us to better understand that process the Theoretical Model of Customer Engagement (Vivek et al., 2012). According to this model, there are strong relationships between involvement, engagement, customer participation, and value. In the case of crowdfunding, all these elements dynamically change during the campaign. Importantly, they are interrelated. The key element for engagement to occur is involvement, while involvement depends primarily on value. The value is increased during the campaign through customer participation, which is a result of engagement. However, how to influence all these areas is still unclear. Therefore, our research question is which elements of the crowdfunding campaign environment influence both engagement and involvement.

Consistently with prior research on crowdfunding (Anglin et al., 2014; Skirnevskiy et al., 2017), we used data from the world's biggest crowdfunding platform – Kickstarter. In order to answer our question, we created a cross-case study of the top 30 most funded campaigns in the tabletop category in Kickstarter's history. Kickstarter is an ideal setting for two reasons. First, because involvement and engagement are crucial both for creators and backers. It can improve the quality of the products, increase funding success and reduce agency costs (Cornelius & Gokpinar, 2020). Second, because Kickstarter provides the history of the interactions between backers and creators, we can track how the campaign has changed during fundraising. We have access to updates and campaign content. Data on the success of the campaign or the number of commenting backers is also easily accessible.

Our research makes three key contributions. First, we extend the literature examining the role of engagement and involvement in crowdfunding (Cornelius & Gokpinar, 2020; Kuppuswamy & Bayus, 2017). More precisely, we demonstrate how these same tactics can create an environment that has a positive impact on both engagement and involvement (Cornelius & Gokpinar, 2020). Second, we contribute to the Theory of Intrinsically Motivating Instruction showing how it can be extended to include the role of social interaction as a factor influencing engagement (Butticè et al., 2017). Finally, our work also offers contributions for practitioners. We show what actions realised during a crowdfunding campaign can influence the creation of the right environment to foster backer engagement. As a result, this can contribute directly to better fundraising results.

2. Customers' and investors' involvement and engagement in crowdfunding

Crowdfunding has an innovative character, but it already has a wide application. It constitutes an attractive alternative to traditional sources of financing (Manning & Bejarano, 2016) and is more than just a way of financial support. There are four types of crowdfunding: reward-based crowdfunding, equity-based crowdfunding, donation-based crowdfunding, and lending-based crowdfunding (Belleflamme et al., 2010). It can be said that despite having the same mechanism, all these forms have different

characteristics. As lending-based crowdfunding constitutes a marginal source of financing and charity crowdfunding is characterised by completely different assumptions, reward-based and equity-based crowdfunding are of significant importance for the financing of potential and existing entrepreneurs. Nevertheless, both are referred to as ‘intrinsically different’ (Vismara, 2015).

We decided to focus on reward-based crowdfunding which offers a ‘repeatable way’ of financing innovative products by one entity. This form of fundraising can become a running model for innovative teams where knowledge of building engagement of a crowd can have a significant impact. The motivations of backers of reward-based campaigns are also totally different. This attracts individuals to support projects that they like and want to support and who also want to receive an innovative product as a result (Bao et al., 2019). In the opposite equity-based platforms attract people by return on investment (Vismara, 2015). Because reward-based campaigns are much more associated with the activity of the community, they also contain ‘community belonging’ rewards such as social events (Block et al., 2018) and the final reward – a product. Equity-based crowdfunding can still be treated as a less profitable business approach to obtaining financing that cannot be found otherwise. This is not in line with the understanding of crowdfunding as a way of financing innovative projects (Ahlers et al., 2015; Walthoff-Borm et al., 2018). Nevertheless, such capital fundraising opens, more broadly than classical forms, opportunities to finance projects, making this world a better place, not necessarily maximising the rate of return. Crowdfunding sustainability-oriented campaigns attract more investors, including a higher number of small investors, who make the decision more with use of community logic and forward-looking variables (Vismara, 2019).

Despite the nature of purchasing, reward-based product crowdfunding projects are affected by agency issues. There are two prominent ones highlighted in the literature: information asymmetry on product quality and specifications of a product that are not fixed (Chakraborty & Swinney, 2021; Cornelius & Gokpinar, 2020; Cumming & Hornuf, 2018). Backers have to judge the product’s value and the creator’s ability to deliver a final product. Depending on the model in which the crowdfunding platform operates, the early backers expose themselves to a particular risk. The final product may be different from their expectations. Therefore backers are, in some way,

forced to follow the project and to get involved in it to secure its interest. This relationship between creators and supporters is different from the product buying context. Products in crowdfunding campaigns are under development, so supporters can be called ‘customer investors’ (Cornelius & Gokpinar, 2020) or ‘consumer investors’ (Kuppuswamy & Bayus, 2015). This leads to some behaviour patterns among both creators and backers who have to find their way to operate in this context.

2.1. Involvement, engagement, and backing the project

Involvement, engagement, and support (backing in the case of crowdfunding) are considered synonyms in the colloquial sense. The meaning of these basic concepts seems to be important for understanding the dependencies we undertake to analyse. To organise our research, we would like to refer to concepts related to the growing literature on consumer engagement of the Theoretical Model of Customer Engagement presented by Vivek, Beatty, and Morgan (2012), shown in Figure 1.

This model incorporates involvement as an essential driver of engagement. Interestingly, in the case of crowdfunding project in Vivek et al., the model includes an antecedent of engagement. Participation defined as a level of involvement in producing or delivering the service which ‘can produce higher levels of enthusiasm and subsequently greater engagement’ (Vivek et al., 2012). Higher engagement results in multiple outcomes such as value, trust, affective commitment, word of mouth, brand community involvement, and loyalty, which also take a particular place in a study by Parihar, Dawra, Sahay (Parihar et al., 2019).

Integrating the unique crowdfunding backer roles (Cornelius & Gokpinar, 2020; Kuppuswamy & Bayus, 2015) and customer engagement literature, we propose a theoretical model of backer engagement.

We left engagement in the centre as a level of interaction of the backer or potential backer with the project creator that is different from the pledge. We use involvement as a non-behavioural level of interest in the project and participation as involvement in project development. We decided to limit potential outcomes to value and community involvement (regarding brand community involvement) for

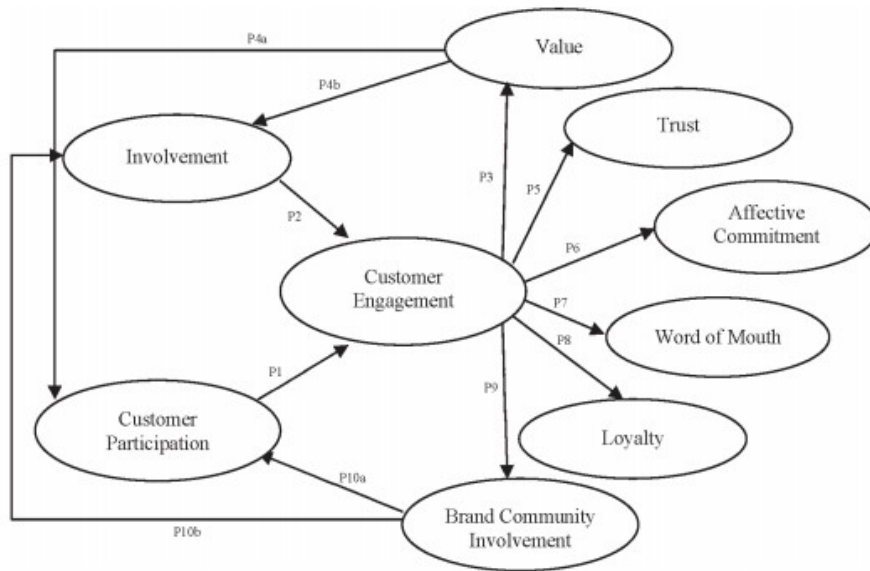


Figure 1. Theoretical Model of Customer Engagement (Vivek et al., 2012)

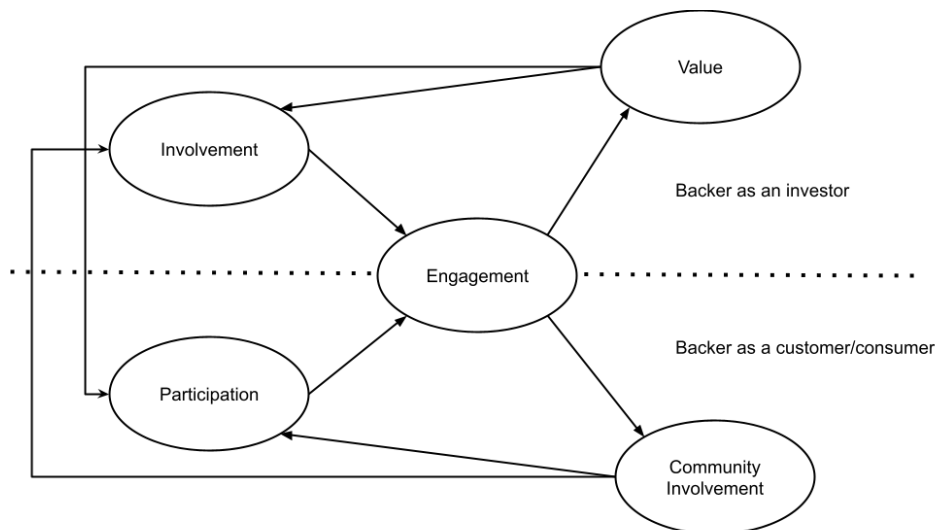


Figure 2. Theoretical model of backer engagement (source: own model)

greater transparency of relationships. As in the case of the Theoretical Model of Customer Engagement, our model has two feedback loops related to the outcomes. Higher value and community involvement result in becoming more involved and participating more by backers and potential backers. This form of presentation of antecedents and outcomes of engagement also allows the conceptualisation of the two roles of the backer as an investor and as a customer or consumer. Considering the explorative character of this paper, we treat this model as a starting point to collect results indicating future research.

2.2. Engagement-friendly environment

Our research seeks to address the problem of engagement of backers. It cannot be forced; therefore, we can presume that it is crucial to create an ‘environment’ in which it will emerge. Consequently, it is good to start with a question: what can make such a need or reason for doing something – called motivation (Cambridge Dict., 2021). Literature on motivation alludes to the influence of both intrinsic and extrinsic motivation (which can be internalised) manifested in different environmental contexts, such as school, work, sport (Deci, 2016), gamification (Xi & Hamari,

2019), crowdsourcing (Brabham, 2010) and more. From this point of view, conditions that support backers' engagement are related to the creation of a perspective in which people are 'encouraged to experiment, allowed to try their own solutions to problems, provided with choice, and responded to when they initiate' (Deci, 2016). For that, and more reasons (such as creating support for projects more autotelic), crowdsourcing systems are being gamified with features that address intrinsic needs (Morschheuser et al., 2019). As the intrinsic part of motivation 'is commonly considered as the most productive force behind people's behavior' (Xi & Hamari, 2019), it seems reasonable to refer to this concept for empowering engagement in crowdfunding campaigns.

Malone (1981) had presented a *Framework for Theory of Intrinsically Motivating Instruction*, which can help organise the methods of influence. This framework consists of three main categories: challenge, fantasy, and curiosity. Other studies refer to aspects of design that can support motivation, such as goals and tasks to be done, challenge, progressive balance, immediate feedback (Dickey, 2005), positive feedback (Hagger et al., 2015), enjoyment (Ryan & Deci, 2020). Together these aspects do not exceed Malone's framework and can be considered in its light.

The first category, challenge, is that all design elements that provide goals and attainment of these goals are uncertain. It is also connected with feedback about goal achievement (Malone, 1981). Positive feedback satisfies the need for competence and influences intrinsic motivation (Hagger et al., 2015). People tend to engage in activities 'in which they feel efficacious' (Lam et al., 2010); because of that, the environment must be structured so that users can easily generate goals of appropriate difficulty for its level. It is not without significance that the goal should be meaningful and engage a person's self-esteem (Malone, 1981). The following methods associated with this category can be found in crowdfunding campaigns in the form of goals that can be achieved through the size of the given support.

The second part of the framework discussed here is fantasy. It is considered as mental images of things that are not present to the senses and that make the environment created more interesting. Malone refers to mental images of physical objects and social situations. In the case of crowdfunding campaigns, fantasy could describe preparation of the narrative side of a project, which influences the attitude of backers to fund a project (Marom & Sade, 2013; Wuillaume et al.,

2019). In creating mental images, digital storytelling also plays an important role, mainly provided via social media to encourage 'positive funding behaviour' (Kim & Hall, 2020). An exciting way of presenting the campaign could help keep backers following the campaign and promote commitment to achieving goals and comments. An attractive and attention-grabbing manner of posted updates also could increase engagement (Block et al., 2018)

The last one, curiosity, refers to providing an engaging but not overwhelming level of complexity. The environment created 'should be novel and surprising, but not completely incomprehensible' (Malone, 1981). This group is the least describable part of crowdfunding campaigns. Nevertheless, among methods implemented in crowdfunding campaigns, surprising roles can be assigned to new add-ons, new rewards or results of daily goals.

2.3. The impact of backers on the project

The engagement of backers can be determined not only by the environment but also by their role. Kuppuswamy and Bayus pointed out that when 'projects approach their goal, they receive more backer support, but after the goal is achieved, support drops off sharply' (Kuppuswamy & Bayus, 2017). As reward-based campaign creators are interested in maximising the size of support, it is desirable to create a 'gradation of goals'. A sequence of steps that a project climbs maintains the impression that backers have influenced the project's success – even after collecting the campaign goal. This is called a 'goal gradient effect' (Schmid, 2020). It refers to a pattern in which 'people judge late-stage events to have greater value than equivalent early-stage events' (Cryder et al., 2013). This effect applies to many areas of life. Noteworthy for this paper are the results of a study by Schmid (2020) on the experience of power and individuals' motivations to pursue goals. The results highlight the idea that power positions (eg managers) reduce the goal gradient effect, and low-power participants (eg employees) are better when they receive nearby goals. This relationship allows us to refer to the crowdfunding campaign in which backers are in the low power position.

When we consider that motivation can be increased by manipulating the proximity of the goal, it can be divided into smaller ones. Extreme examples are daily goals. Thanks to this, positive feedback is received

much more often. On the other hand, it is also possible to involve supporters in the product development process. This could transfer them to a position with a higher power, such as organised voting or the creation of dedicated social groups in which supporters can have an impact on the final product. These methods also create ‘creator social capital’, which helps raise capital in future campaigns (Kuppuswamy & Bayus, 2015). On the other hand, keeping potential backers close to the project with the use of a ‘daily teaser’ for a product can reduce the risk of not receiving support in the case of the intentional delay of a potential backer. It can be treated as a way of implementing a menu of rewards proposed by Chakraborty & Swinney (2018).

2.4. Benefits of engagement of a crowd

Finally, it is worth paying attention to one of the most important features of crowdfunding, which is the participation of the widely understood crowd. This is what is in some way missed in Malone’s framework in the case of intrinsic motivation. The unique role of the backer is directly connected to the process of monitoring and influencing projects with the use of limited methods. Backers, as investors, have to interact with creators to collect information about quality and probability to deliver a product while, simultaneously, as consumers, they have to influence creators to introduce the desired features to the final product (Chaney, 2019; Cornelius & Gokpinar, 2020).

The engagement of backers (a crowd) results in numerous effects presented in the literature (Cornelius & Gokpinar, 2020). From the perspective of backers, a product is more adapted to the crowd’s needs, and prospective backers are more willing to finance it. Existing backers who show support and engage in projects reduce the uncertainty about the quality of a product and reduce monitoring costs for prospective backers. A high level of engagement is a signal that ‘the project is being monitored diligently and that the creators are unlikely to act against the interests of the customers’ (Cornelius & Gokpinar, 2020). On the other side, from the perspective of creators, the engagement of backers in some way replaces the monitoring help received from institutional investors (angel, VC) (Cornelius & Gokpinar, 2020; Hardin III et al., 2017).

Crowd support for projects is also a social activity related to the social impact and cultivating work engagement. Therefore results of this can also be considered in a broader context. In the context of

military operations, low engagement ‘is related to more fatigue symptoms’ in contrast to more engaged teams, which experience less of them (Boermans et al., 2014). Another context of working under pressure is shown in the study of Sharma and Bhatnagar (Sharma & Bhatnagar, 2017). The authors pay attention to the importance of engagement determinants such as humour, quality of feedback, open communication, and the overall climate of fun. Our study also contributes to these topics. Investigating ways of influencing the level of engagement is relevant to a larger group of stakeholders and can be transferred to other contexts where large-scale engagement matters.

3. Data and methodology

We conducted our research on data from the world’s biggest crowdfunding platform – Kickstarter. Over the last decade, 200,000 projects have been successfully funded through that platform, with support worth over \$5.25 billion (Kickstarter, 2021). We used tabletop game campaigns for three reasons. First, of the top 100 campaigns in Kickstarter history, 36 are products in the tabletop games category. Second, projects in the games category raised by far the most funds with \$1.48B, which is almost 30% of the value of all the projects in the platform’s history. It represents nearly 50% (214/549) of all projects that have reached over \$1 million. Third, games are among the projects closest to those pursued by serial entrepreneurs (Xu, 2015) and aimed at creating or sustaining an organisation rather than a one-off campaign (Mollick, 2018; Parhankangas & Renko, 2017). It also allowed us to see if the creators repeat the same tactics in different campaigns and how their strategy changes.

Then, from among these campaigns, we manually collected data about the top 30 most funded projects. We finished collecting data on 1 May 2021, so we focussed only on campaigns that ended before that date. First, we collected campaign performance indicators such as total funds raised, the funding period, number of comments, number of updates, and number of backers. We focussed on the campaigns that achieved the most success as measured by the total funding raised. This approach is consistent with previous work in this area (Anglin et al., 2018; Belleflamme et al., 2014). We assumed that an important measure to monitor success is the number of people supporting the project – backers (Vismara, 2016). It allows us also to measure how large a group of people was attracted by the signals

sent during the campaign. The number of backers is directly related to the value of the funds collected and can also be a source of whispered marketing and social proof in the form of ‘wisdom of the crowd’, which determines the quality of the project.

The next step was a cross-case study of each of the 30 campaigns. We compared both the campaign’s content and all of the updates that occurred throughout the campaign. Next, we highlighted those tactics that most frequently appeared in more than one campaign and those that occurred incidentally. Finally, we created a classification of these tactics based on the three areas that influence involvement – challenge, fantasy, and curiosity – based on intrinsic motivation. For a fourth area, we divided tactics regarding positive outcomes of engagement that create a feedback loop to involvement in our model proposition. It contains all social interactions that generate higher value and community involvement.

4. Results

Our sample was dominated by two development studios – Polish Awaken Realms and American CMON. These two companies are responsible for almost half (14/30) of the campaigns in the top 30 most funded tabletop games in Kickstarter history.

By far the most commonly used tactics are *stretch goals*. They link the product content to the campaign result. As the funds raised during the campaign increase, the content is expanded, or the quality of components is improved. Another form of stretch goals is *social goals*, related to the activity of backers in social media, e.g a given number of shares of information about the product on Facebook. The third type is *daily goals*. These consist of unlocking new content every day. It makes the game systematically increase its value during the campaign regardless of the activity of backers. Simultaneously, it maintains the backers’ impression of the importance of their contribution to the product’s success.

The second group of tactics interferes with the number of products that can be purchased during the campaign. A popular strategy is to vary the rewards throughout the campaign. As goals are unlocked, the game content increases. A distinction is often made between the core game and add-ons (optional buys) to allow more people to participate in the campaign. The core game primarily includes the game, but during the campaign, so-called ‘optional buys’ appear to increase the involvement of backers. These are either additional elements to the game itself – gameplay add-ons (eg different scenarios) or related products (eg an art book created based on the game).

Table 1. Summary of basic information about sample campaigns’ performance

No	Title	Creator	Beginning of campaign	End of campaign	Updates (during campaign)	Backers	Comments per day (during campaign)	Pledge level
1	Frosthaven	Isaac Childres	31.03.2020	01.05.2020	33	83,193	446	\$ 12,969,608
2	Kingdom Death: Monster 1.5	Kingdom Death	25.11.2016	08.01.2017	50	19,264	3491	\$ 12,393,139
3	Exploding Kittens	Exploding Kittens	20.01.2015	20.02.2015	15	219,382	1,845	\$ 8,782,571
4	THE 7th CONTINENT	Serious Poulp	26.09.2017	19.10.2017	54	43,733	1,184	\$ 7,072,757
5	Nemesis Lockdown	Awaken Realms	28.05.2020	18.06.2020	11	41,907	972	£ 5,174,153
6	Tainted Grail	Awaken Realms	5.12.2019	28.12.2019	23	41,939	1,782	£ 4,940,030
7	Darkest Dungeon The Board Game	Mythic Games, Inc.	20.10.2020	06.11.2020	62	28,842	731	\$ 5,657,479
8	Dark Souks The Board Game	Steamforged Games Ltd	19.04.2016	16.05.2016	63	31,178	2,519	£ 3,771,474

Continued **Table 1.** Summary of basic information about sample campaigns' performance

No	Title	Creator	Beginning of campaign	End of campaign	Updates (during campaign)	Backers	Comments per day (during campaign)	Pledge level
9	Zombicide Green Horde	CMON	30.05.2017	28.06.2017	51	27,236	3,548	\$ 5,004,614
10	Etherfields	Awaken Realms	16.06.2019	08.08.2019	22	32,582	981	£ 3,974,362
11	Everdell: Newleaf, Mistwood, and The Complete Collection	Starling Games	09.03.2021	25.03.2021	12	31,463	604	\$ 4,831,975
12	Batman: Gotham City Chronicles	Monolith Board Games LLC	27.02.2018	31.03.2018	74	19,303	1,429	\$ 4,403,197
13	Nemesis Board game	Awaken Realms	17.01.2018	07.02.2018	23	30,553	1,482	£ 3,080,833
14	Rising Sun	CMON	07.03.2017	04.04.2017	36	31,262	1,083	\$ 4,228,060
15	Zombicide: Black Plague	CMON	08.06.2015	07.07.2015	49	20,915	N/A	\$ 4,079,204
16	Return to Dark Tower	Restoration Games	14.01.2020	04.02.2020	15	23,661	381	\$ 4,054,744
17	Bloodborne	CMON	23.04.2019	14.05.2019	57	23,986	1,593	\$ 4,013,731
18	The 7th Citadel	Serious Poulp	22.09.2020	15.10.2020	43	33,353	349	€ 3,289,904
19	Massive Darkness 2: Hellscape	CMON	04.08.2020	26.08.2020	63	21,763	2,243	\$ 3,813,274
20	Massive Darkness	CMON	07.06.2016	08.07.2016	54	22,361	2,353	\$ 3,560,642
21	Monster Hunter World: The Board Game	Steamforged Games Ltd	20.04.2021	30.04.2021	23	20,398	387	£ 3,448,262
22	Trial by Trolley	Cyanide And Happiness	08.07.2019	08.08.2019	30	55,024	115	\$ 3,538,065
23	Zombicide: 2nd Edition	CMON	16.10.2019	7.11.2019	72	21,735	1,639	\$ 3,410,084
24	Zombicide: Invader	CMON	10.04.2018	04.05.2018	60	18,486	2,087	\$ 3,352,208
25	Conan	Monolith Board Games LLC	12.01.2015	11.02.2015	94	16 038	1,134	\$ 3,327,757
26	Ankh: Gods of Egypt	CMON	14.04.2020	05.05.2020	41	23,386	1,494	\$ 3,320,196
27	Zombicide: Undead or Alive	CMON	17.02.2021	11.03.2021	85	2,116	1,540	\$ 3,310,872
28	Joking Hazard	Cyanide And Happiness	09.02.2016	10.03.2016	29	63,758	61	\$ 3,246 588
29	Bears vs Babies - A Card Game	Exploding Kittens	18.10.2016	18.11.2016	11	85,581	400	\$ 3,215,679
30	Here to Slay	Ramy Badie	21.01.2020	11.02.2020	23	38,922	463	\$ 3,077,536

Table 2. Summary of basic tactics founded in sample campaigns

No	Title	Stretch goals	Social goals	Daily goals	Voting	Contest	New add-ons	New rewards	Dedicated group	Other
1	Frosthaven	x			X	x	x	x		x
2	Kingdom Death: Monster 1.5	x		x			x	x		x
3	Exploding Kittens	x		x			x	x		x
4	THE 7th CONTINENT	x			X		x	x		
5	Nemesis Lockdown			x	X		x	x	x	x
6	Tainted Grail	x			X		x	x	x	x
7	Darkest Dungeon, the Board Game	x					x	x	x	
8	Dark Souks, the Board Game	x					x			x
9	Zombicide Green Horde	x					x			x
10	Etherfields	x			X	x	x	x	x	x
11	Everdell: Newleaf, Mistwood, and the Complete Collection					x	x	x		x
12	Batman: Gotham City Chronicles	x			x		x	x		
13	Nemesis Board game	x			x		x	x	x	x
14	Rising Sun	x					x			
15	Zombicide: Black Plague	x					x			
16	Return to Dark Tower	x					x	x	x	x
17	Bloodborne	x			x		x	x		
18	The 7th Citadel	x					x	x		x
19	Massive Darkness 2: Hellscape	x		x			x	x		
20	Massive Darkness	x					x	x		
21	Monster Hunter World: The Board Game			x			x			x
22	Trial by Trolley	x	x		x					x
23	Zombicide: 2nd Edition	x					x			
24	Zombicide: Invader	x					x			
25	Conan	x					x			
26	Ankh: Gods of Egypt	x					x	x		
27	Zombicide: Undead or Alive	x		x			x	x		
28	Joking Hazard	x	x			x				x
29	Bears vs Babies – A Card Game	x	x		x					
30	Here to Slay	x	x					x		x

Table 3. Tactics arranged in the proposed four areas of an engagement-friendly environment

Challenge	Fantasy	Curiosity	Social interactions
<ul style="list-style-type: none"> • Stretch goals • Social goals • Voting • Contest 	<ul style="list-style-type: none"> • Storytelling 	<ul style="list-style-type: none"> • New add-ons • New rewards • Daily goals 	<ul style="list-style-type: none"> • AMA • Meetings live/online • Dedicated group • Social activities

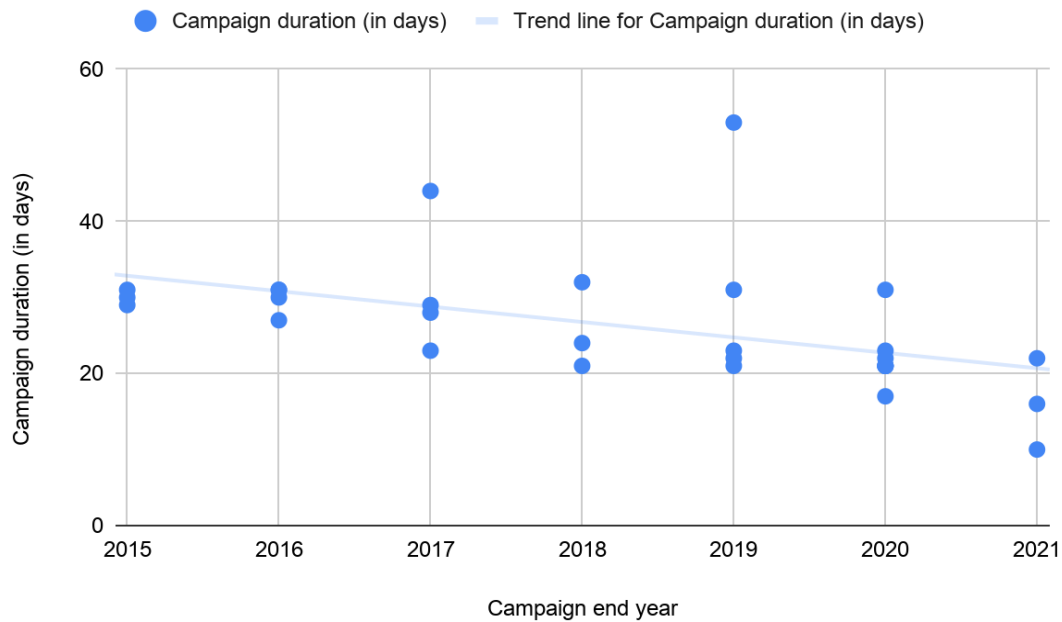


Figure 3. Campaign end year vs campaign duration (in days) with linear trend line

On the other hand, a reward is a bundle of products that backers can choose during the campaign. It may include different sets, eg only the core game or the core game and selected add-ons. Popular types of rewards are the early bird, which gives a significant discount on the first day of the campaign, and the all-in, which offers a substantial discount for people who buy the game and all gameplay add-ons.

The third group of tactics allows backers to influence the content of the game. It is done either through voting or contests. The first ones are mainly aimed at determining the direction the game should develop, eg what further stretch goals should be proposed. Contests can aim to popularise the game using social media and often involve backers co-creating parts of the game, such as suggesting a new character for the game or a scenario.

Social media are used not only as a way to advertise. Another type of strategy, which this time does not directly affect the game’s content, is to create dedicated groups for backers, for example, on Facebook or Discord. It allows users to build a community both

around a single game and a particular game developer. This tactic is noticeably linked to the others. Within community groups, many ideas for the following stretch goals are generated, or competitions are decided.

There are also interesting examples of those that have occurred incidentally. These include, for example, meetings with backers, both online and in real life, or joint involvement in some charity action.

The tactics we have identified fit into the four characteristics of an engagement-friendly environment. We have included in the challenge category all those activities that involve carrying out various tasks, and their completion will unlock, for example, further stretch goals. Within fantasy, the creators used storytelling. It is quite characteristic of the game category, where there is a substantial story introduction. The promotional video of a particular game usually puts the player in the role of a hero who, for example, has to save the world. All campaigns contained this type of element, but they are also unique to the games industry, so they were not included in

Table 4. Tactics' impact on value and engagement

Tactic	Impact on value	Impact on engagement
Stretch goals (including social and daily goals)	Increases the content or quality of the product	It is a form of challenge, reaching successive levels. Social goals increase social interactions. If the rewards for completing further goals are unknown then this affects curiosity.
Voting	Allows tailoring the product to backers' preferences	It is a form of challenge: it allows backers to compete with others.
Contest	Increases value through content co-created by backers	It is a form of challenge: it allows backers to compete with others. If the new content is unknown, then it affects curiosity.
New add-ons	New game content that adds value to the game, often only available during the campaign	Many of the add-ons do not appear until the campaign is already underway. This affects curiosity.
New rewards	New game content that adds value to the game, often only available during the campaign	If the rewards are unknown, then this affects curiosity.
Dedicated group	The groups are used, among other things, to exchange feedback on the game, thus correcting errors and generally improving the value of the product.	This improves social interaction and a sense of shared purpose.

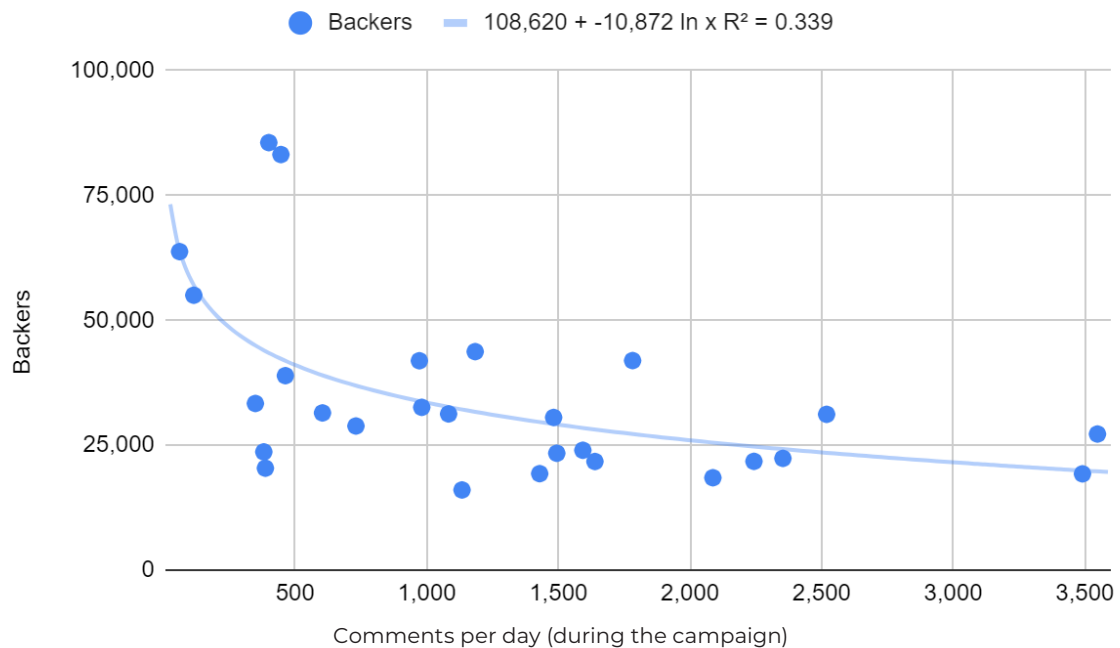


Figure 4. Comments per day (during the campaign) vs the total number of backers with logarithmic trend line. (excluding campaigns two outliers – with the highest and lowest number of supporters)

Table 5. Examples of engaged backers' comments

Tactic	Engagement example
Stretch goals	'Can't wait for the stretch goals. No hurry, no pressure: I'm just excited for the surprises!' (Bear vs Babies)
Social goals	'YAY! One of my images was selected! Wooooo!' (Trial by Trolley) 'Oooo, I love this! Can't wait to design something!' (Trial by Trolley)
Daily goals	'I do hope the Daily rewards equal the quality of other game's stretch goals: O' (Monster Hunter World) 'Psyched for this and honestly I enjoy how their daily unlocks mimic the game. YES!' (Monster Hunter World)
Voting	'Rusted Nomad, this creation has some human elements that fit in with the games concept.' (Etherfields Board Game) 'My vote it for Funeral Witch. The reason being, I just suffered the loss of a beloved pet. (...)'(Etherfields Board Game) 'I really like these game Reports. They're interesting to read and give a good impression how the gameplay could feel...what decisions the players have to handle with. I'm really excited for the next reports and how the decisions may change during the game. :) (Ankh: Gods of Egypt)
Contest	'Wow, wasn't expecting results so soon. Over 250 submissions on the scenario design contest! Have you been evaluating things as they got posted, or do you have a very long week ahead of you?: O' (Frosthaven)
New add-ons	'The only thing that makes me sad about this campaign is that the game won't hit my table for over a year.' (Return to Dark Tower)
New rewards	'I would love to see a truly all-in-gameplay without the miniature pack. It would be amazing if you could add this option, with corrected math ;) Either way, you guys do an incredible job. Simply stunning! Keep it up and thank you so much' (Tainted Grail)
Dedicated group	'Please vote here and let's us delve Tainted Grails lore together with the LOCATION JOURNAL this addition will add huge immersion and replayability https://boardgamegeek.com/article/30724648#30724648 ' (Tainted Grail)
Other	'I've supported plenty of KS campaigns but this have been the most entertaining one so far! You guys did something amazing and, if I had this fun just with the campaign, I cannot wait to play the game! Thanks for the ride!' (Trial By Trolley) 'Yet another reason Exploding Kittens and the team behind it is so PAW-some. (See what I did there.) Not only are they celebrating how great we all are as backers (yeah, I went there) but getting us off our duffs to support animal shelters and their dedicated volunteers/staff too?! I literally can't even. YAYEXPLODINGKITTENS!!!! If I wasn't working today I'd have on my party pants, but in lieu of that, I think it's time to find a rescue group to volunteer with ... you know, to help keep the kittens intact.' (Exploding Kittens) 'Wow, what a lot of backers and money... I'm glad I backed this game. It gonna be great.'(Etherfields Board Game) 'I have just backed the project (was on vacation), but I would like to add some idea about new character (I know that has been decided already, but maybe there will be another one, or AR will re-evaluate existing ones). (...) Hope our community (along with AR) will find it interesting :)' (Nemesis Lockdown)

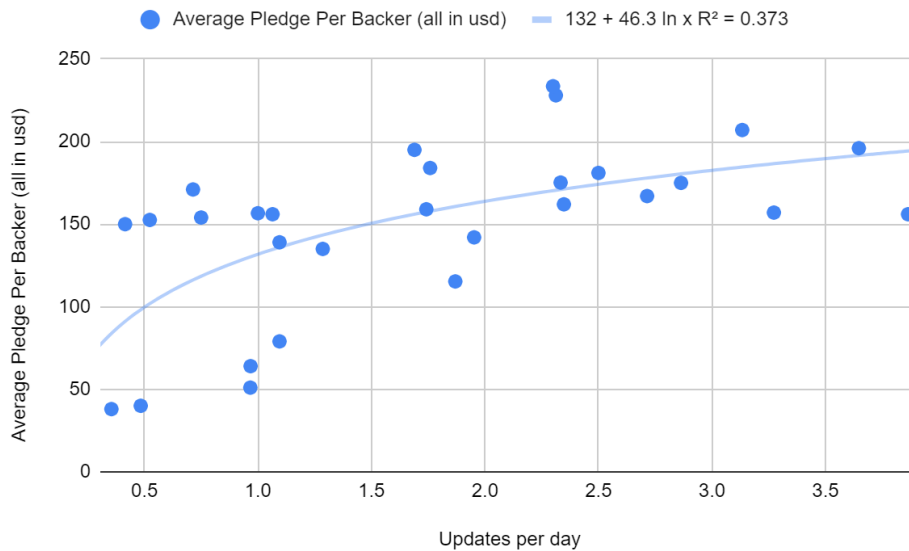


Figure 5. Updates per day vs average pledge per backer (in USD) with logarithmic trend line

the earlier table. We put in the curiosity category all new elements that emerged during the campaign and that backers were not previously aware of. The last group consists of those activities that foster social interactions both on the creator-backers and backer-backers lines.

All the tactics we have highlighted influence both engagement (directly) and involvement (indirectly through value). While the value is evident, as you can see, for example, the number of components of the game and the engagement are a more subjective feeling. Therefore, in the following table, we have presented examples of comments made by backers, which show their engagement.

In crowdfunding, most activity takes place on the first and last day of a campaign. It can make it challenging to maintain high levels of engagement from backers over multiple days. Quite clearly, there is a growing trend towards shorter, more dynamic campaigns.

It is worth noting that campaigns with the highest number of backers do not encourage active engagement. It may be related to the fact that the games in these campaigns were relatively cheap and aimed at a vast audience that did not necessarily have the knowledge or desire to help develop the game.

However, regular communication and the use of different tactics (eg the announcement of new stretch goals) influence the average value of support provided by backers.

5. Discussion

Drawing on recent advances in crowdfunding research, the present article has aimed to answer which elements of the crowdfunding campaign environment influence the engagement of backers. The most successful creators use similar tactics to create an environment that fosters both involvement and engagement. Applying the Framework for Theory of Intrinsically Motivating Instruction, we divided them into three groups corresponding to challenge, fantasy, and curiosity, respectively. The area that is common but has so far been unaddressed in this theory is the fourth category we highlighted – social interaction. It refers to a group of tactics that emphasise collective action among backers, enhancing their engagement.

First of all, we noticed that the tactics used by the best creators work on two levels. The first level is the direct impact on engagement and value (and consequently indirectly on the involvement). For example, daily goals increase the value of a product (a game in our case) by expanding its content, fitting it into the area of curiosity, and encouraging people to check the campaign website for news every day. We propose to call the second level 'the loop of engagement'. It is mutually reinforcing between engagement and involvement. We therefore suggest treating the actions of creators as providing a suitable environment in which these processes can take place, rather than as isolated tactics. In this environment, the initial value of the project creates the involvement of the backers. Involvement is crucial for engagement

to occur. By providing the right conditions for the challenge, fantasy, curiosity and social interaction, creators can stimulate backers' engagement. As a result, they are more willing to participate in achieving social goals or voting. It consequently increases the product's value and attracts new backers who need a higher value to be involved. The emergence of new backers then contributes to achieving the next stretch goals and thus again increases the product's value. More backers also mean more community engagement. In this way, an appropriately created environment is ideal for simultaneously stimulating involvement and engagement and achieving excellent fundraising results.

There are two possible explanations for these results. First, top creators may be aware of these relationships. This can be seen for example, in the direct incentives to get engaged and the emphasis on the role of active participation in the campaign for its ultimate success. This may also be indicated by the fact that more of these tactics appear over time. For example, stretch goals were already present in the oldest campaigns in our sample, while daily goals emerged much later. It may suggest that the developers are experimenting by observing which campaign elements are effective. It would confirm, in turn, the existence of learning by doing in crowdfunding (Lin et al., 2020; Xu, 2015). The occurrence of very similar tactics in most top creators also suggests that social learning may occur here (Bandura, 1979). It means that creators learn by launching new campaigns, observing other creators, and implementing the best practices in their projects.

A second explanation could be that the creators are not aware of the impact of involvement and engagement on the financial success of the campaign but see that others are using such tactics, so they copy the same behaviour. These are then imitation strategies or even some form of herding behaviour. Our work is part of a lively discussion about the role of engagement in crowdfunding campaigns. Some authors indicate that engagement is a measure of campaign success (Vismara, 2015), while others suggest its role is as an essential determinant of that success (Cornelius & Gokpinar, 2020; Kuppuswamy & Bayus, 2017). In our work, we show that an engagement loop occurs. The funders can influence the supporters' engagement while designing the campaign, and a good campaign performance reinforces this.

Our research helps to understand better the unique role of backers and their involvement in projects. Therefore, it is used as a basis for future study of this

context and the practical design of future campaigns. A comprehensive overview of the methods offers a structured set of campaign design tactics, which increases the involvement and engagement of backers. It provides excellent directions for further research. We would like to encourage other academics to verify quantitatively the model we have developed. Future research should also include projects in less engaging categories than games. Additionally, it would be helpful to include the best projects in the sample and see how the same tactics might work when the initial project value is lower. This would also be consistent with the results of Chakraborty and Swinney's work (2021) where they found aspects of the campaign "creator can signal high quality by setting a higher campaign target" with no reference to what is presented in this work.

6. Conclusion

In the present article, we investigated the unique role of involvement and customer participation with respect to engagement and its interrelationship with value and community involvement. The results of our paper suggest that it is possible to create an engagement-friendly environment. Studies have so far suggested that engagement can be either a campaign performance indicator (Vismara, 2015) or one of the determinants of the campaign's success (Cornelius & Gokpinar, 2020; Kuppuswamy & Bayus, 2017). Within the framework of the Theoretical Model of Customer Engagement (Vivek, Beatty, and Morgan, 2012) and the Framework of Theory of Intrinsically Motivating Instruction (Malone, 1981), our paper offers a novel perspective on a role of engagement in the crowdfunding.

We have shown that it is possible to create an environment that fosters engagement among backers, which influences the perception of campaign success, which in turn attracts more backers and strengthens engagement. In this way, engagement is both an indicator of campaign performance and a catalyst for success. We focus on the tabletop category. It allows us to take a look inside the popular and crowd-engaging category of reward-based campaigns. However, it is also a limitation of our study. Further research may extend this work by including other categories and unsuccessful projects.

We hope that the results of our research will show paths for the creators of crowdfunding campaigns, allowing them to achieve greater involvement and engagement of supporters and, at the same time, more significant funding.

References

- Ahlers, G. K. C., Cumming, D., Günther, C., & Schweizer, D. (2015). Signaling in Equity Crowdfunding. *Entrepreneurship: Theory and Practice*, 39(4), 955–980. <https://doi.org/10.1111/etap.12157>
- Anglin, A. H., Allison, T. H., McKenny, A. F., & Busenitz, L. W. (2014). The role of charismatic rhetoric in crowdfunding: An examination with computer-Aided text analysis. In A. T. H. (Ed.), *Research Methodology in Strategy and Management* (Vol. 9, pp. 19–48). Emerald Group Publishing Limited. <https://doi.org/10.1108/S1479-838720140000009010>
- Anglin, A. H., Wolfe, M. T., Short, J. C., McKenny, A. F., & Pidduck, R. J. (2018). Narcissistic rhetoric and crowdfunding performance: A social role theory perspective. *Journal of Business Venturing*, 33(6), 780–812. <https://doi.org/10.1016/j.jbusvent.2018.04.004>
- Bao, Z., Yang, Y., & Chau, M. (2019). The Dynamics of Funding Behaviors in Reward-Based Crowdfunding Projects. *Proceedings of the International Conference on Electronic Business (ICEB 2019)*, 541–545.
- Belleflamme, P., Lambert, T., & Schwienbacher, A. (2010). *Crowdfunding: An Industrial Organization Perspective*. 1-30.
- Belleflamme, P., Lambert, T., & Schwienbacher, A. (2014). Crowdfunding: Tapping the right crowd. *Journal of Business Venturing*, 29(5), 585–609. <https://doi.org/10.1016/j.jbusvent.2013.07.003>
- Block, J., Hornuf, L., & Moritz, A. (2018). Which updates during an equity crowdfunding campaign increase crowd participation? *Small Business Economics*, 50(1), 3–27. <https://doi.org/10.1007/s11187-017-9876-4>
- Boermans, S. M., Kamphuis, W., Delahaij, R., Van Den Berg, C., & Euwema, M. C. (2014). Team spirit makes the difference: The interactive effects of team work engagement and organizational constraints during a military operation on psychological outcomes afterwards. *Stress and Health*, 30(5), 386–396. <https://doi.org/10.1002/smi.2621>
- Brabham, D. C. (2010). Moving the crowd at threadless. *Information, Communication & Society*, 13(8), 1,122–1,145. <https://doi.org/10.1080/13691181003624090>
- Butticè, V., Colombo, M. G., & Wright, M. (2017). Serial Crowdfunding, Social Capital, and Project Success. *Entrepreneurship: Theory and Practice*, 41(2), 183–207. <https://doi.org/10.1111/etap.12271>
- Chakraborty, S., & Swinney, R. (2018). Designing Rewards-Based Crowdfunding Campaigns for Strategic Contributors. *SSRN Electronic Journal*, 1-39. <https://doi.org/10.2139/ssrn.3240094>
- Chakraborty, S., & Swinney, R. (2021). Signaling to the crowd: Private quality information and rewards-based crowdfunding. *Manufacturing and Service Operations Management*, 23(1), 155–169. <https://doi.org/10.1287/MSOM.2019.0833>
- Chaney, D. (2019). A principal–agent perspective on consumer co-production: Crowdfunding and the redefinition of consumer power. *Technological Forecasting and Social Change*, 141, 74–84. <https://doi.org/10.1016/j.techfore.2018.06.013>
- Cornelius, P. B., & Gokpinar, B. (2020). The role of customer investor involvement in crowdfunding success. *Management Science*, 66(1), 452–472. <https://doi.org/10.1287/mnsc.2018.3211>
- Cryder, C. E., Loewenstein, G., & Seltman, H. (2013). Goal gradient in helping behavior. *Journal of Experimental Social Psychology*, 49(6), 1078–1083. <https://doi.org/10.1016/j.jesp.2013.07.003>
- Cumming, D., & Hornuf, L. (2018). The economics of crowdfunding: Startups, portals and investor behavior. In *The Economics of Crowdfunding: Startups, Portals and Investor Behavior*, 1-8. <https://doi.org/10.1007/978-3-319-66119-3>
- Deci, E. L. (2016). Intrinsic motivation and self-determination. In *The Curated Reference Collection in Neuroscience and Biobehavioral Psychology* (pp. 437–448). Elsevier Science Ltd. <https://doi.org/10.1016/B978-0-12-809324-5.05613-3>
- Dickey, M. D. (2005). Engaging by design: How engagement strategies in popular computer and video games can inform instructional design. *Educational Technology Research and Development*, 53(2), 67–83. <https://doi.org/10.1007/BF02504866>
- Hagger, M. S., Koch, S., & Chatzisarantis, N. L. D. (2015). The effect of causality orientations and positive competence-enhancing feedback on intrinsic

motivation: A test of additive and interactive effects. *Personality and Individual Differences*, 72, 107–111. <https://doi.org/10.1016/j.paid.2014.08.012>

Hardin III, W. G., Leo Nagel, G., & Roskelley, K. (2017). Institutional monitoring, motivated investors, and firm performance Intrinsic value theory View project. In *Article in Journal of Real Estate Research*. <https://www.researchgate.net/publication/326404278>

Kim, M. J., & Hall, C. M. (2020). What drives visitor economy crowdfunding? The effect of digital storytelling on unified theory of acceptance and use of technology. *Tourism Management Perspectives*, 34(June 2019), 100,638. <https://doi.org/10.1016/j.tmp.2020.100638>

Kuppuswamy, V., & Bayus, B. L. (2015). A Review of Crowdfunding Research and Findings. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2685739>

Kuppuswamy, V., & Bayus, B. L. (2017). Does my contribution to your crowdfunding project matter? *Journal of Business Venturing*, 32(1), 72–89. <https://doi.org/10.1016/j.jbusvent.2016.10.004>

Lam, S. Fong, Cheng, R. W. Yi, & Choy, H. C. (2010). School support and teacher motivation to implement project-based learning. *Learning and Instruction*, 20(6), 487–497. <https://doi.org/10.1016/j.learninstruc.2009.07.003>

Lin, W. S., Chen, H. R., & Yang, M. L. (2020). How do we learn to get success together through crowdfunding platform? From the perspectives of system learning and multi-motivations. *Telematics and Informatics*, 52. <https://doi.org/10.1016/j.tele.2020.101428>

Malone, T. W. (1981). Toward a theory of intrinsically motivating instruction. *Cognitive Science*, 5(4), 333–369. [https://doi.org/10.1016/S0364-0213\(81\)80017-1](https://doi.org/10.1016/S0364-0213(81)80017-1)

Manning, S., & Bejarano, T. A. (2016). Convincing the crowd: Entrepreneurial storytelling in crowdfunding campaigns. *Strategic Organization*, 15(2), 194–219. <https://doi.org/10.1177/1476127016648500>

Marom, D., & Sade, O. (2013). Are the Life and Death of a Young Start-Up Indeed in the Power of the Tongue? Lessons from Online Crowdfunding Pitches. *SSRN Electronic Journal*, February, 1–47. <https://doi.org/10.2139/ssrn.2255707>

Mollick, E. (2018). Crowdfunding as a font of entrepreneurship: Outcomes of reward-based crowdfunding. In D. Cumming & L. Hornuf (Eds.),

The Economics of Crowdfunding: Startups, Portals and Investor Behavior (pp. 133–150). Palgrave Macmillan UK. https://doi.org/10.1007/978-3-319-66119-3_7

Morschheuser, B., Hamari, J., & Maedche, A. (2019). Cooperation or competition – When do people contribute more? A field experiment on gamification of crowdsourcing. *International Journal of Human Computer Studies*, 127(August 2017), 7–24. <https://doi.org/10.1016/j.ijhcs.2018.10.001>

Parhankangas, A., & Renko, M. (2017). Linguistic style and crowdfunding success among social and commercial entrepreneurs. *Journal of Business Venturing*, 32(2), 215–236. <https://doi.org/https://doi.org/10.1016/j.jbusvent.2016.11.001>

Parihar, P., Dawra, J., & Sahay, V. (2019). The role of customer engagement in the involvement-loyalty link. *Marketing Intelligence and Planning*, 37(1), 66–79. <https://doi.org/10.1108/MIP-11-2017-0318>

Richins, M. L., & Bloch, P. H. (1986). After the New Wears off: The Temporal Context of Product Involvement. *Journal of Consumer Research*, 13(2), 280–285. <http://www.jstor.org/stable/2489233>

Rodriguez-Ricardo, Y., Sicilia, M., & López, M. (2018). What drives crowdfunding participation? The influence of personal and social traits. *Spanish Journal of Marketing - ESIC*, 22(2), 163–182. <https://doi.org/10.1108/SJME-03-2018-004>

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61(April), 101,860. <https://doi.org/10.1016/j.cedpsych.2020.101860>

Schmid, P. C. (2020). Power reduces the goal gradient effect. *Journal of Experimental Social Psychology*, 90(May). <https://doi.org/10.1016/j.jesp.2020.104003>

Sharma, A., & Bhatnagar, J. (2017). Emergence of team engagement under time pressure: role of team leader and team climate. *Team Performance Management*, 23(3–4), 171–185. <https://doi.org/10.1108/TPM-06-2016-0031>

Skirnevskiy, V., Bendig, D., & Brettel, M. (2017). The influence of internal social capital on serial creators' success in crowdfunding. *Entrepreneurship: Theory and Practice*, 41(2), 209–236. <https://doi.org/10.1111/etap.12272>

Vismara, S. (2015). Information cascades among investors in equity crowdfunding. *SSRN Electronic Journal*, 1–49. <https://doi.org/10.2139/ssrn.2589619>

Vismara, S. (2016). Equity retention and social network theory in equity crowdfunding. *Small Business Economics*, 46(4), 579–590. <https://doi.org/10.1007/s11187-016-9710-4>

Vismara, S. (2019). Sustainability in equity crowdfunding. *Technological Forecasting and Social Change*, 141(September 2017), 98–106. <https://doi.org/10.1016/j.techfore.2018.07.014>

Vivek, S., Beatty, S., & Morgan, R. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory and Practice*, 20, 127–145. <https://doi.org/10.2753/MTP1069-6679200201>

Walthoff-Borm, X., Schwienbacher, A., & Vanacker, T. (2018). Equity crowdfunding: First resort or last resort? *Journal of Business Venturing*, 33(4), 513–533. <https://doi.org/10.1016/j.jbusvent.2018.04.001>

Wuillaume, A., Jacquemin, A., & Janssen, F. (2019). The right word for the right crowd: An attempt to recognize the influence of emotions. *International Journal of Entrepreneurial Behavior & Research*, 25(2), 243–258. <https://doi.org/10.1108/IJEBR-10-2017-0412>

Xi, N., & Hamari, J. (2019). Does gamification satisfy needs? A study on the relationship between gamification features and intrinsic need satisfaction. *International Journal of Information Management*, 46(January), 210–221. <https://doi.org/10.1016/j.ijinfomgt.2018.12.002>

Xu, T. (2015). Learning from the crowd: The feedback value of crowdfunding. In *SSRN*. <https://doi.org/10.2139/ssrn.2637699>

Yang, J., Li, Y., Calic, G., & Shevchenko, A. (2020). How multimedia shape crowdfunding outcomes: The overshadowing effect of images and videos on text in campaign information. *Journal of Business Research*, 117, 6–18. <https://doi.org/10.1016/j.jbusres.2020.05.008>

Zhang, H., & Chen, W. (2019). Crowdfunding technological innovations: Interaction between consumer benefits and rewards. *Technovation*, 84–85, 11–20. <https://doi.org/https://doi.org/10.1016/j.technovation.2018.05.001>