




Article

How to Engage the Crowds to Create Value? Evidence from the Pathfinder Arena Case

Anna Prisco ^{1,*} , Valerio Muto ¹, , ¹ and Mario Tani ¹ 

¹ Department of Economics, Management and Institutions, University of Naples “Federico II”, Via Cintia, 21, 80126 Naples, Italy; valerio.muto@unina.it (V.M.); mario.tani@unina.it (M.T.)

² Department of Management, University of Turin, Corso Unione Sovietica 218 Bis, 10134 Turin, Italy; ciro.troise@unito.it

* Correspondence: anna.prisco@unina.it

Abstract: Reward-based crowdfunding has emerged in recent years as an interesting channel business that can leverage to obtain new financial resources outside the traditional ones. In this study, we explore how the creators of a reward-based crowdfunding campaign have engaged the crowd to create value and co-create knowledge to reduce both financial and market risks. Accordingly, we analyze the case study of the Kickstarter Campaign for Pathfinder Arena, a board game created by Giochi Uniti, an Italian Gaming Company. Through the lens of the social identity theory, we show that backers can generate the feedback processes needed to improve the product, when they want to belong in a community and when they want to interact with the creators. This research could have important implications for both researchers and future creators of reward-based crowdfunding projects, showing them the way to implement some instrument for involving the crowd to generate value.

Keywords: reward-based crowdfunding; the social identity theory; interaction; case study



Citation: Prisco, A.; Muto, V.; Troise, C.; Tani, M. How to Engage the Crowds to Create Value? Evidence from the Pathfinder Arena Case. *Sustainability* **2022**, *14*, 4342. <https://doi.org/10.3390/su14074342>

Academic Editors: Francesco Cappa, Angelo Natalicchio, Riccardo Maiolini, Jakob Pohlisch, Erica Mazzola and Klaus Reiner Schenk-Hoppé

Received: 25 January 2022

Accepted: 31 March 2022

Published: 6 April 2022

Publisher’s Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Crowdfunding is an innovative mode of funding that, through obtaining support to a given project, allows companies to achieve the economic and financial sustainability of business. Crowdfunding can also impact the social sustainability enterprise by increasing the investors/backers’ confidence in the company as a consequence of crowdfunding in order to reduce information asymmetries and moral hazard problems [1,2]. In this regard, we can say that crowdfunding is more than a mere financing instrument and is, in fact, able to create different impacts, both market-related and organizational, while also creating other types of values, such as learning, testing, bonding, relationships, and self-esteem for project founders and target users [3–5].

Crowdfunding is an innovative phenomenon that has been under the spotlight in the last few years. It has attracted considerable attention from numerous scholars from different disciplines. Crowdfunding campaigns take place through platforms, mainly internet-based, which can connect two categories of users: fundraisers, often called creators, and funders, also known as backers.

Backers provide financial resources in exchange for a reward or a prize with the aim of supporting social projects or initiatives by providing financial resources [6–8]. Crowdfunding can be understood as an “open call” aimed at raising financial resources, outside the usual and recognized mechanisms, such as banks, venture capitalists, and business angels [6,9]. Indeed, Mollick “[10] (pp. 223–224)” defines it as “the efforts by entrepreneurial individuals and groups “—” cultural, social, and for-profit “—” to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries”.

The concept of crowdfunding is not an entirely new one, as similar financing initiatives already existed before the advent of online platforms. With the advent of the web, according

to [11], the first forms of crowdfunding originated in the music and film industries, but it quickly spread to other sectors as an innovative and creative way for entrepreneurs to finance their ventures. In recent years, crowdfunding platforms have been met with some success as, on the one hand, consumers find these projects more and more reliable [12] while, on the other hand, funders are able to reach a greater number of customers and employees with greater media exposure [13,14]. Furthermore, a successful crowdfunding campaign may increase the creators' chances of receiving funding from venture capital or external lenders [10,15,16].

The volume of crowdfunding business in 2020 saw a significant increase compared to the previous year. In particular, donation and reward-based crowdfunding has seen a significant increase of 38% (Starteed Group “—” Crowdfunding Report, 2020).

In the context of reward-based crowdfunding, in particular through the Kickstarter platform (the best known and most used platform), USD 730 million was raised in 2020, out of 37,581 initiatives, of which 18,642 were used to reach the funding target set (Top Games, 2021). In particular, the games sector raised a total of USD 237 million using reward-based crowdfunding platforms, with an increase of 33% when compared to the previous year. A third of this funding came from the Kickstarter platform alone, which is widely used by those who produce board games. Since 2009, the board games industry has raised contributions for USD 686 million on Kickstarter, almost 70% of the total funds raised through it (Tom Show, 2021).

The gaming industry has undergone considerable development thanks to crowdfunding platforms [17]. As noted by [18], the gaming industry is a particularly suitable sector for crowdfunding and has interesting features that deserve to be explored.

Several scholars have investigated the phenomena of crowdfunding. Major contributions have focused on equity crowdfunding [19–21], in particular on the role of sustainability in equity crowdfunding [22–24]. From the literature, it emerged that the interaction with the crowd represents one of the main sources of success for equity crowdfunding campaigns. On the same page, much attention has been given to reward-based crowdfunding. Most of the studies on reward-based campaigns have focused on the innovative aspects of this original method of financing and, in particular, much attention has been paid to the reasons for the success of the proposed projects, to the geographical origin of the financing and the importance of interactions between creators and funders of crowdfunding projects [7,25–28]. In particular, several researches have looked into the role of quality of communication [29,30], the role of community identity [31], and the role of interaction between funders and backers [32,33] for campaign success. However, the literature has failed to consider how the involvement and engagement of crowds may advance knowledge and promote product innovation.

The purpose of this paper is to investigate this gap. In particular, using the lens of the social identity theory, we investigate how the involvement and engagement of crowds may create value, advance knowledge, and promote innovation of the products in the gaming industry. In particular, we focus on a case study: the “The Pathfinder Arena campaign”. The aim of the creators, Giochi Uniti, through reward-based crowdfunding, has been to support themselves economically without relying on third-party funding sources. In fact, crowdfunding democratizes funding by allowing creators to reach non-institutional funding. In addition to funding, the fundraisers also acquire community support that validates the proposed project.

The company, thanks to various factors, including the continuous interaction with its backers and the clear and specialized communication ideal for the community of individuals, was able to reach and exceed the target on the first day of the campaign.

This research originality is based on the study and analysis of factors that influence backers to contribute not only financially to the campaign, but to become sources of product innovation as well. The use of the theoretical lens of the social identity theory allows us to study how creators' ability to create and develop, through incentive mechanisms and interaction, a large community of backers which can fully identify with the values and

expectations of the proposed crowdfunding project. This identification of values in the reference community allows us to predict and motivate the involvement of new backers in the support and funding of the crowdfunding campaign thanks to what is defined in the social identity theory of Tajfel and Turner [34], according to which individuals are part of a group and act on the basis of their social identity.

First of all, several studies have suggested that crowdfunding campaigns work better with a strong presence on social networks. Social networks can be seen as tools to start communicating with a community that tends to be really “engaged” and involved in the activity of the enterprise [7].

In addition, the results show how a crowdfunding campaign should be actively managed throughout the funding phase. The updates are a tool for accountability to account for the evolutions and events that affect the design activity [35]. The crowdfunding campaign represents an operational practice with which involves various corporate stakeholders in the processes of growth and development of the organization.

The gaming industry, with the emerging trend of crowdfunding, has experienced a significant boost [13], because it is well positioned to leverage the crowdfunding advantages compared with other industries (reduction in commercial risk, creation of the reference community, product innovation, pre-sales channels, etc.). The gaming industry is unique as it is based on external networks that can provide significant returns. Crowdfunding provides a mechanism for establishing a large customer base [36], it can also promote customer loyalty, and stimulate interest in new projects at early phases of their development [7]. For these reasons, in our paper, we focus on a case study operating in gaming sectors, i.e., the Pathfinder Arena crowdfunding campaign.

The paper is structured as follows. In Section 2, we present a literature review on reward-based crowdfunding and the role of the social identity theory in crowdfunding. In Section 3, we present the methodology used to answer our research questions and, in Section 4, we analyze the Giochi Unity case study. Finally, in Section 5, we present theoretical and managerial implications, while Section 6 presents the research limits.

2. Literature Review

2.1. Reward-Based Crowdfunding

In the past, the development of new products was the sole responsibility of producers [37], whereas today, companies are constantly looking for new innovative methods for designing products or services with accumulated knowledge and creative staff as the main resources. Today’s customers are increasingly demanding; this means that companies need to develop new products or services that are no longer just for customers but, rather, are produced with them to adapt as much as possible to their needs [38]. This has led organizations to include key users in the production and development of their product and service offerings [39–41]. Some authors claim that the development of new products and services is no longer a dictatorship of exclusive ownership of the company, but it is a democracy that also allows possible customers to participate by delivering feedback and comments related to the service or product they offer [37].

Some authors [42] have identified the Internet as a possible location for value co-creation with customers, due to its increased reach, interactivity, speed, persistence, and ability to engage users in collaborative innovation of products and services.

Regarding this, online crowdfunding platforms have proved to be an innovative and very effective tool for collecting capital and funding to develop and implement an entrepreneurial project.

The literature has identified two main classes of crowdfunding platforms: (1) investment-based crowdfunding platforms, and (2) reward- and donation-based crowdfunding platforms [6,7].

The first class includes equity-based, royalty-based, and lending-based crowdfunding platforms. In this class, the backers effectively invest in the various proposed projects and, usually, in exchange for their support, they expect monetary compensation.

In the second class of platforms, however, funders finance a given project in exchange for a product or simply because they support the cause, without expecting a monetary return of any kind [6,7].

This study will mainly focus on the reward-based ones, which is a phenomenon that has spread rapidly in recent years [43].

Reward-based crowdfunding platforms give the opportunity to the project backers to receive the product or service before it is officially placed on the market, in a similar way to a kind of pre-order [44]. This implies these funders are even more important than the so-called “early adopters” as they can provide valuable feedback according to their experience and they may discuss the quality and the features of the products and services [43].

Regarding the reward-based crowdfunding business model, Cumming et al. [45] reported two types: keep-it-all (KIA) and all-or-nothing (AON).

In the first case, the creator of the project keeps the entire amount of funds raised, regardless of whether or not they have achieved the goal initially set, while in the second case, the creator will not keep any of the amount collected unless the target initially set was achieved by the crowdfunding campaign.

As mentioned above, one of the biggest challenges entrepreneurs have to face is to obtain the necessary funding to support their projects [45]. Crowdfunding campaigns, especially reward-based ones, that are often financed by private individuals rather than companies [46], are a new source of funding that allows entrepreneurs to address a “crowd” of individuals geographically dispersed rather than relying on traditional sources of funding [7,47,48].

According to [49], the entrepreneurs’ main objectives in engaging in reward-based crowdfunding campaigns concern the collection of resources and capital in exchange for products and services based on the contribution offered and the increase in brand awareness for a large audience of consumers and lenders. Other scholars, however, such as [7,50], point out that reward-based crowdfunding platforms bring benefits that go beyond mere funding or raising capital, but are rather used as marketing tools to validate proposed project activities. In addition, the greatest advantage for crowdfunding campaign creators is the ability to share risks related to the sale of the product or service with the project backers, especially in the case of highly innovative product or service projects [51]. Finally, another motivation for entrepreneurs to choose this method of financing rather than traditional financing channels is the possibility of addressing a wider audience of individuals, who invest in a project because they are really linked to the values and cultural aspects of the activities promoted by the campaign and not only for the promised return on investment [52].

2.2. Social Identity Theory and Crowdfunding

The social identity theory states that when individuals are part of a group, they act on the basis of their social identity [53]. According to Tajfel and Turner [34], individuals have different social identities based on the different roles they play in the groups they belong to.

Studies have shown that individuals categorize other people as actors within or outside of their own group [54].

This preliminary categorization was used as a basis for studying the behavior of individuals based on belonging to a particular group [55] and why they make economic decisions that may seem irrational [56].

The social identity theory is also used to explain crowd behavior and the contribution mechanism of crowdfunding [57]. In particular, social identity has been shown to influence the way people invest and the projects they finance [58]. As stated by [30], understanding the social identity of the potential funders being targeted is a key element in motivating and influencing crowd behavior. Although crowdfunding projects and crowds are heterogeneous, lenders often rely on investments made by friends and relatives or members of their target social group [59], as well as supporting campaigns that are consistent with their own identity and aspirations [60].

In addition, it has also been shown that providing information on the highest bid amount received for a project and the frequency of news and communication to update the fundraising campaign has a positive impact on backers confidence and on the success of the crowdfunding campaign as a whole [61].

Crowds are often encouraged to support a given crowdfunding campaign based on intrinsic motivations relating to their social and cultural values [62]. In particular, the affinity between a crowdfunding project and the culture of a particular individual is an important incentive for their involvement. Culture is a system of values underlying a group or society that helps to formalize certain behaviors and people personality traits that are not present in other societies or reference groups [63]. Culture, therefore, can shape the social identity of the members of a group and significantly influence their decisions to support a project or not, based on the latter's potential to satisfy this kind of intrinsic motivation [64].

There are several studies that have shown how social identity and the creators' use of social media can influence the backers' behavior and bring success to the campaign. For example, Ref. [22] showed how the use of social media and the frequency with which companies communicate with their funders can impact the success of a reward-based crowdfunding campaign.

Resnick and Kraut [65] confirm previous studies classifying individuals as members of a given group based on their social identity [34]. In fact, they showed that the bigger the number of individuals present on the Facebook group linked to a crowdfunding campaign, the deeper the relationship that is established between creators and backers, and consequently, the greater the level of contribution of the community. This demonstrates how the ability to create as large a community as possible is a key factor to the success of a crowdfunding campaign. Furthermore, they demonstrated how recruiting and grouping individuals with the same values as the reference community due to the sharing of updates and posts on social networks on the crowdfunding project can impact the success of the campaign as they influence the community participation and enhance their commitment leveraging on the subjects' social identity. This implies that the creators need to create projects that can engage individuals even outside their own community of reference through sharing mechanisms that are open and inclusive.

Finally, another study on social identity in crowdfunding [66], demonstrates how the platforms and social networks associated with the campaign are key elements in the social identity and the different roles of members in the formation of group identity, i.e., factors which determine the success of the reward-based crowdfunding project.

2.3. The Role of Communication

Several authors have studied the possible aspects that motivate backers to support a specific crowdfunding project. In particular, the first to propose a study in this sense was [7], analyzing the data of the reward-based crowdfunding campaigns on the Kickstarter platform [45]. For the author, the most important aspect for the success of a reward-based crowdfunding campaign concerned the quality of the project communication. A crowdfunding campaign is often characterized by a series of standard information such as the monetary target to be reached with the collection, the description of the project, the final deadline for the collection, and the achievement of the established objective [67].

Subsequently, other scholars have focused on the quality with which a crowdfunding campaign is communicated to backers. For example, some scholars have put the attention on creators' information (past experience, team members), project description (e.g., goal, video, and picture), and on the clarity of the language used in the description of the project to be funded [32,68,69]. Authors such as [66], on the other hand, focus their attention on the impact that the use of recurring words in the description of a project can have on the achievement of the objectives set by the crowdfunding campaign.

Hence, our first research question is as follows.

- Which advantages may entrepreneurs get from their projects' communication in the crowdfunding campaigns?

2.4. The Role of Community Identity

Some scholars have shown that the participation in a crowdfunding campaign is linked to backers' intrinsic motivations [28,62,70,71]. The intrinsic motivations concern one's own personal propensity to support a project or a social cause based on the correspondence with one's social, moral, and cultural values. The intrinsic motivations concern one's own personal propensity to support a project or a social cause based on the correspondence with one's social, moral, and cultural values. In this case, those who are motivated by intrinsic motivation do not expect any reward in exchange for their support [29,50,72].

Other crucial aspects in motivating the participation of individuals in the financing of certain crowdfunding projects are: the feeling of identity/community and compatibility of the project with its socio-cultural values [30]; the shared capital of the entrepreneur [7,22,73]; and the context of the reference community [31].

In fact, some scholars have shown that those who participate in crowdfunding campaigns do so for the explicit reason of expanding their network and, therefore, being part of a community.

A similar need for community involvement was also found in other individuals who supported projects to satisfy their desire to support causes or people, to reap rewards, and/or to have social approval [59]. Finally, as demonstrated by [74], one of the main motivations for those who support crowdfunding campaigns is the need to satisfy psychological needs for social contact and to identify with a group of individuals who share the same interests.

Creators increasingly use social media to engage customers in the processes of creating and developing their own business projects. The definition of "community-based innovation" refers to companies' ability to create a community interested in the fate of the product or service offered [75]. Online communities are able to accumulate a large amount of product know-how and, in fact, in this regard, it has been shown how important it is for creators to communicate with their members to obtain useful inputs for the development of new products or services and to ensure a successful crowdfunding campaign. Hence, we pose a second research question:

- Which activities may entrepreneurs do to build a shared identity in a community to enhance crowd engagement?

2.5. The Role of Interaction

Other scholars have focused on the importance of creator-backer interactions [27,63]. As demonstrated by [76], a reward-based campaign success factor is how frequently updates are added to the campaign by creators, while other scholars have focused more on how much the number of comments published, the sentiment, and the quality of their linguistic style could become indicative of the success of a given project [77,78].

Finally, [32] demonstrated how, in addition to these factors, the length of comments and the speed of response from creators are positively correlated with the chances of success of a reward-based crowdfunding campaign. This aspect demonstrates how the continuous interaction between creators and backers is a key factor in the financing performance of a project, and how the amount and the sentiment of comments are considered reliable information to make their investment decisions, regardless of the duration of the comment.

- How may entrepreneurs improve the interaction between creators and backers to enhance crowd engagement?

2.6. The Role of Incentives

A third factor driving backers to support a given project, after the intrinsic motivations and the social reasons, refers to the extrinsic motivations, i.e., the motivations of those who decide to finance a project on the basis of the expectation of receiving a reward or compensation in exchange for their support [30,62,74].

According to [79], in the specific case of reward-based crowdfunding campaigns, the funders are also driven by intrinsic motivations linked to the experiential aspect of

the promised reward, as well as by the financial motivation to receive a prize. In fact, backers are often motivated to finance reward-based projects also because they are happy to contribute to the promoted initiative. This aspect, according to the author, differentiates them from the motivations that drive investors operate in the traditional financial markets.

In this regard, motivating individuals to participate and finance crowdfunding projects becomes a fundamental resource for the success of the campaign [62].

Reward-based crowdfunding campaigns are structured especially on the use of pledges. A pledge is a sum of money paid by the backer to finance the project and, often, supporters are given the opportunity to contribute in different ways with different reward levels (expansions, deluxe edition, author's dedication, etc.). In particular, through the example of some case studies, authors [80] have demonstrated the centrality of the pledges proposed by creators and the rewards for the type of contribution offered as an incentive mechanism for backers in supporting reward-based crowdfunding campaigns.

Another mechanism to encourage crowd support in reward-based crowdfunding campaigns, even if still hardly studied in the literature, is the early bird mechanism [79,81]. This is an incentive that allows creators to offer a prize or reward at a lower price and in limited quantities in the days preceding a campaign. This practice is mainly used in the very first days of a campaign with the intent of creating a broadcast effect on the campaign [82,83].

Finally, a key incentive mechanism in reward-based crowdfunding campaigns are stretch goals. A stretch goal is an optional extra goal a company can work toward if they exceed their original goal. This is a common technique in crowdfunding, where if a reward-based campaign raises a desired amount of money, they can ask for further contributions to support a specific purpose. If the stretch goals are met, then the backers will be rewarded with further parts or expansions of the product [84]. This kind of mechanism is widely used in crowdfunding campaigns to incentivize backers [85]. An important aspect that should not be underestimated is the level of difficulty of the stretch goals. As shown by [86], stretch goals that are too difficult to achieve, rather than motivate the backers, will have a negative value on their commitment to the campaign. Realistic objectives, on the other hand, are an incentive mechanism that can bring excellent results and often contribute to the success of a crowdfunding campaign [87]. Hence:

- What incentives do entrepreneurs use to enhance crowd engagement?

3. Research Design

Our research was conducted with a qualitative approach based on a case study. The case study approach can be considered an appropriate research strategy as it may provide insights to facilitate the comprehension of the different aspects of an observed phenomenon [88,89], helping to explore a complex phenomenon when hypotheses are difficult to define before collecting research data, and to answer "how" and "why" questions [90]. The lack of prior literature and research about the phenomenon of the role of interaction in crowdfunding supports the development of an explorative study [91].

As reported by [89] (p. 18), a case study helps "to explore a significant phenomenon under rare, unique or extreme circumstances". We wanted to provide insights from a unique case as a valid candidate for theoretical sampling [92,93].

In terms of reward-based crowdfunding campaigns, the most used platform is certainly Kickstarter [7,62,66].

Our case study is focused on the crowdfunding project of "Pathfinder Arena" by the Italian publisher, Giochi Uniti. We chose a company which operates in the gaming sector, as it is one of the main sectors that uses crowdfunding to finance its projects.

Giochi Uniti is a publisher and distributor of boardgames, role-playing, and war games, established in 2006 with the goal of becoming a market leader in the distribution of boardgames.

The establishment took place following the foundation of four companies in the Italian country, namely Vinci, Nexus Editrice, Venice Connection, and Stupor Mundi.

In 2009, Stupor Mundi took over the ownership of the company, taking over the boardgame brands and titles produced by Venice Connection, Idea Edizioni, Tenky Games, and Next, while, in 2010, gained ownership of Stratelibri from New Media Publishing.

Today, Giochi Uniti is a global boardgames distributor, best known for the production and distribution of internationally awarded products, such as Letters From Whitechapel and Kingsburg (Best of Show at LuccaGames 2007), and its latest boardgame in production, Pathfinder Arena, has been funded using a reward-based crowdfunding campaign on Kickstarter.

The vision of the company may be summarized by the motto: “gaming is sharing”. This conveys the goal and mission that its founders set themselves at the time of its establishment: to ensure that people can gather around a table to share unique moments and have some fun.

The Pathfinder Arena crowdfunding campaign is the first KickStarter campaign created by Giochi Uniti. The main objective of the campaign was to raise funds for at least EUR 50,000 to finance the start of the production process. As of 15 December 2021, thanks to the support of 942 supporters, the company managed to collect EUR 115,362, i.e., more than double the initial target.

The choice to analyze Giochi Uniti derives from the fact that it is among the leading boardgame companies. The choice to analyze the Pathfinder Arena campaign was driven, on the one side, from the opportunity to study the first campaign by an established company that is having considerable success and, on the other one, as the creators tried to interact as much as possible with the founders. Furthermore, the campaign had numerous updates and comments on Kickstarter; the company used different channels to promote the campaign; and, last but not least, it was designed to give backers numerous pledges levels (10) and several stretch goals (21) to further motivate them.

The study opted for a qualitative approach, using the methodology of the case study based on multiple sources of evidence. The research was conducted in two phases.

At first, an analysis of the content of the Kickstarter crowdfunding campaign was carried out to collect and process secondary data. In particular, the main and description section of the project and the section dedicated to comments and product update posts were analyzed. The Giochi Uniti Facebook page was then analyzed and, specifically, we focused on the group created specifically for engaging the community of followers. At a later stage, for the collection of primary data, an interview was conducted with Stefano de Carolis, Strategic Planner of Giochi Uniti. The interview was conducted online via the Zoom platform. The interview lasted 2 h. To avoid social bias, the interviewee was informed that the purpose of the research was exclusively for scientific purposes. Subsequently, the interview was transcribed and sent back to the interviewee in order to ensure that there were no errors of understanding or transcription.

The case study analysis opens with a brief presentation of the case to highlight the Giochi Uniti motivation to adopt, for the first time, a crowdfunding project to launch a new board game. Then, we focus on how the presence of a community, the communication, the interaction, and the incentives may involve and engage the crowds for promoting innovation of the products.

4. Case Analysis

This section discusses how Giochi Uniti manages its crowdfunding campaign and how they involve and engage the crowds, even as a source of open innovation. In particular, the tools and mechanisms which allow crowdfunding campaigns managers to stimulate backer’s active participation in the product development process will also be discussed. As highlighted in the literature, entrepreneurs may use reward-based crowdfunding for several reasons. One of these is to reduce the investment risk. In fact, crowdfunding can test the market before entering it, and can change and innovate the product interacting with the backers, significantly reducing the investment risk.

The case of the Pathfinder Arena crowdfunding campaign confirms this perspective. In fact, from the interview, it emerges that the choice to use reward-type crowdfunding is linked to the need to commercially validate the game. Stefano Carolis reports that:

“if the product is not made through Kickstarter or crowdfunding in general, but traditional mechanisms are used, the risk is accepted differently and a little less daring. Crowdfunding gives you the opportunity to dare a little more because it allows you to already see how the market reacts as well as giving you greater visibility.”

Giochi Uniti used the feedback from its supporter base to commercially test the product as a way to design a more appealing product, further reducing the risk of a wrong investment. The choice to use reward-based crowdfunding allows companies and creators to mitigate the commercial risk inherent in putting the product on the market. Thanks to feedback and interaction with consumers, creators can really understand consumer preferences, with the possibility of changing some aspects of the product before bringing it to the market. For this reason, it is important to stimulate the crowd to not only financially support the cause, but to give the creators significant feedback. It is essential for creators to be able to create, through the initiatives connected to the reward-based campaign, a social and cultural environment capable of making supporters feel part of a group or community that reflects the values of its participants. As a result, crowdfunding campaigns often promote activities that can make their supporters feel heard as an active part of the co-creation process, rather than passively receiving the product as mere consumers. In the case of Giochi Uniti, this was linked to creating a strong and cohesive community. Stefano Carolis reports that:

“To further stimulate them [. . .] it is essential that they feel to be an active part of a process, that they feel to be part of a group.”

4.1. The Communication in Pathfinder Arena Crowdfunding Campaign

The company has to communicate the quality of the crowdfunding campaign to stimulate the backers to finance the project. In particular, the information quality must not only concern the main information of the campaign and its creators, but must also be supported by several of updates to allow backers to constantly follow the product development process. Trust is the basis of a reward-based crowdfunding campaign and, through direct communication with their backers, creators must be able to instill that motivational feeling until the set goal is reached. Giochi Uniti was aware of the need to establish a trusted relationship with their backers:

“To further stimulate (the backers) in the product development process and make them participate in the campaign it is essential that potential backers have confidence, they will realize that the project will develop.”

Giochi Uniti tried to create a crowdfunding campaign whereby supporters and backers were given all the information needed to reduce information asymmetries. In addition, there was a very detailed description of the project which provided information on both the game components and the rules of the game, the game objectives, and the possible characters that the players can choose from.

In the name of transparency and customer loyalty, there was also a section called “risks” in their project’s page, which explained the shipping dynamics in detail once the game was financed, as well as the methods of reimbursement in case something went wrong afterwards. The campaign FAQ section was also very broad, with 16 frequently asked questions that aimed to answer all the potential doubts of their supporters in a concise and detailed way. As stated by Stefano de Carolis, Strategic Planner of Giochi Uniti during the interview, most of the communication regarding the crowdfunding campaign took place using visual communication tools, such as videos and photographs:

“An important aspect is the use of images and videos in the description of the project. The visual information allows potential backers to view the product and how they can use it

in its concreteness. This instills confidence in the supporters of the project because they are able to verify with their own eyes the progress of production and the characteristics of the product."

On the company website, we found seven videos which explained the game mechanics, the rules, the characters, and the game settings. For example, on 7 June 2021, they organized a virtual session of "questions & answers on Pathfinder Arena" which showed the rules of the game, with some details on each character.

Later, on 29 July 2021, they posted a video on the progress they made on the first game prototype. A comment to this post explicitly reads *"Thank you for sharing the process!"*. On 14 October 2021, they posted a video of the game setting and a comment said: *"I'd suggest putting a photo up of painted minis so we dream of one day painting them"*.

Furthermore, after looking at the communication before and during the campaign on the Kickstarter platform, the creators constantly added photos of the new components and new expansions of the game asking for advice and feedback from the supporters of the community to create a sense of identity and affiliation with the added benefit to improve the product as a whole.

They posted 176 photos on Facebook of characters and settings in development in order to receive feedback in the different phases of construction of the game.

4.2. The Role of Community in Pathfinder Arena Crowdfunding Campaign

As reported by Gerber [47], a crucial aspect for motivating the backers to support crowdfunding campaigns is to create a community. Backers are motivated by an intrinsic motivation, in which the feeling of identity/community and compatibility with the project plays an important role. Participation in crowdfunding campaigns derives from desires around network expansion, and therefore, being part of a community [59]. Giochi Uniti's management was aware of the need to create a stable backers' community:

"To further stimulate them in the product development process and make them participate in the campaign it is essential that they feel an active part of a process, that they feel part of a group."

As stated by the social identity theory [34,54], when individuals feel part of a group, they are more likely to actively participate. As a result, the creators must be able to create a community in which the backers can identify with and in which they can find their own social and cultural values. This allows individuals to behave according to sense of belonging promoted by the community itself. The interviewee states that:

"One of the most important aspects in the design of the campaign was to create a community months before the launch of the project on KickStarter, in order to already have a large community following us."

In this case study, there were several activities that helped to create that sense of community and that encouraged backers to actively participate in the product creation process. Before starting the campaign, Giochi Uniti participated in two big gaming fairs, one in Italy (Play di Modena—3–5 September 2021) and the other in Germany (Essen Spiel—15–18 October 2021 in Essen).

During these events, the gamers had the opportunity to touch, and play with, the first game prototypes, which have later been refined from the first 3D printed miniatures of characters and monsters. In this way, potential backers had the opportunity to test the product and join a network of players. This allowed for a mutual information exchange between the company and backers. In fact, this has allowed the company to make numerous updates and improvements to the product based on the feedback found during these events:

"These events helped in obtaining a mutual exchange of information. In particular, it allowed us to improve the product and to undertake the crowdfunding campaign on a product that was already known to a large number of subjects and was also in line with their expectations."

Equally important was the creation of a direct communication channel through which the backers could follow the production process of the various product components. Giochi Uniti created a Facebook group long before the reward-based campaign starts:

“The goal was to already have a hard core to rely on. The goal was to create a community of people, of enthusiasts who might want to support the campaign.”

For the same reasons, the company also exploited the most popular gaming platforms. This meant that the communication was addressed to a certain type of customers who could recognize themselves in the sponsored product and in the cultural values promoted by it:

“We have decided to post content on the main gaming platforms, such as Twitch, BGG and the Italian Tana dei Goblin, where the gamer communities are particularly active in order to stimulate them to participate in the crowdfunding campaign.”

Finally, the communication through well-known influencers in the gaming world also had a disruptive effect. In fact, in this way, the company managed to reach all members of the gaming community, sponsoring the product and creating a strong expectation regarding its quality, thanks to the positive comments of the chosen influencers:

“Before the campaign began, we had industry-wide influencers post content on the game and the campaign to create a broadcast effect, in particular, we chose the influencers who were most active in the gamer communities.”

The thesis of the sense of community was supported by posts and comments made by various followers of the project. In particular, the company created a dedicated Facebook group, even before the crowdfunding campaign was released on Kickstarter. Most of the posts in this group were updates related to the production of the project and the countdown to the starting day of the crowdfunding campaign. On the one hand, these posts are useful for creators to receive feedback and advice from supporters, validate the project in the pre-commercial phase, and mitigate the risks of selling the product in the market. On the other hand, the posts create a strong bond with supporters who, through their advice, push the company to develop a product in line with its expectations, with the sentiment of co-creators feeling equal.

From the analysis of the content from social networks and different sites (e.g., Facebook, Instagram, Twitch, BGG, La Tana del Goblin, Board Game Revolution, and The Dice Tower) related to the reward-based crowdfunding campaign, some interesting comments emerged which underlined how the company was at the forefront of creating a sense of community and how this was actually perceived by their supporters. Some examples of these comments are listed below.

“1000 FOLLOWERS OF THE PAGE ALREADY!—We are super excited to launch this project on the 23rd of November! Spread the word, Pathfinder Arena is coming on Kickstarter with a stunning young black dragon for free on day 1!”

—(Facebook—Pathfinder Arena Official Group)

“Heroes, 2021 will be the year of our crowdfunding campaign! We have a lot of surprises for the forthcoming months, but first of all, let’s take a look at the miniatures displayed so far! Help us to reach all your Pathfinder friends!—Gaming is sharing.”

—(Facebook—Pathfinder Arena Official Group)

“AND THE WINNERS ARE...—Fumbus and Seoni! They will be included in the first expansion box of Pathfinder Arena! It was a close battle between Seoni and Amiri. We have plans for our Barbarian too... [stay tuned]. This was just the first survey on the game’s components! Be sure to invite as many friends as possible to help us create the best Pathfinder Arena experience for the community!”

—(Facebook—Pathfinder Arena Official Group)

Comments such as these ones suggest how the company managed to involve the backers, not only in financing the project but also in the development of the game, and of its components. This, in addition to increasing their sense of community, created a greater bond with the product, allowing backers to satisfy their community belonging needs [74]. Finally, giving away prizes to receive unique and personalized components of the product stimulated individual participation in the community. Even the aspect of inviting friends to attend the event should not be underestimated; this type of request tends to reinforce the idea of community and the feeling of being part of a group that share the same interests and values.

Finally, to increase the sense of community, a tabletop simulator was used, i.e., a multiplayer video game that gives users the opportunity to participate in board games simulating a real gaming environment in 3D. This has helped users to understand how the game was really structured, as well as its main features and how it is played, which are relevant factors to those who approach the game for the first time. The opportunity to digitally download the game and to try it out before the start of the official campaign on Kickstarter allows players organize games with both other players and the game's creators. According to Stefano De Carolis:

"The use of Tabletop Simulator allowed the creation of a sense of community because whoever wanted could get in touch and test with other players."

This aspect is also highlighted by the comments made on the availability of the game in Tabletop Simulator published on Facebook on 29 November 2021:

"Try our Kickstarter on Tabletop Simulator now! Download Steam and Tabletop and sign up on the page below to start your legend in the Arena!"

From the board, we read many different, from the general ones such as:

"Hello! I wanted to ask, if any of the group members are interested in organizing a game on tabletop simulator, to try it out."

To more detailed ones, such as:

"Now that the game with Giorgio Serafini on tabletop simulator is over, it was my experience with the Arena and I had a lot of fun and I can't wait to propose it to my friends. You played a really good game, thanks again!"

This type of initiative encourages the members of the reference community to stay updated on the development of the project and participate in preview sessions of the game. This also allows the company to receive feedback and advice in return on the modes and components of the game that should be improved.

Another important initiative to stimulate supporters' interaction and improve the sense of community was to create The Dice Tower's Pathfinder Arena Live Gameplay.

The Dice Tower is a specialized board game site that brings together several individuals passionate about the industry who, through videos, articles, and audio podcasts, promote different types of card games and board games. The producers of the site have organized a Live Gameplay—i.e., an online game—to show the supporters of the project the fundamental characteristics of the game and its key aspects, as well as how it is played. This event was also very popular with the community, who were very curious about how to advance the level of development of the game and its main features. Stefano Carolis reports that:

"We found the partnership with The Dice Tower and their willingness to try the game in advance very useful. This allowed us to give a real demonstration to the backers of the validity of the project and the way in which the game is carried out. We received many comments following the event, very enthusiastic about the gameplay and the game in general to the point of wanting to increase their level of involvement in the project by aiming for higher pledges."

The same goes for the contest organized by Board Game Revolution, another news website specialized in board games. In this case, interaction with the community was created by giving away a copy of the game following a raffle. Only those who described their favorite Pathfinder Arena monster in three words could enter the draw. In fact, the post in question was the post with the highest number of likes and comments from the community. Stefano de Carolis, Giochi Uniti Strategic Planner also certifies the importance of initiatives of this kind:

“Events with prizes up for grabs stimulate interaction with the community a lot and, often, even for the mere fact of being able to receive a reward, create a remarkable broadcast effect. Often, these occasions are also attended by individuals who are not exactly passionate about board games that participate for the sake of being awarded a prize.”

Moreover, they organized giveaway events, increasing the interaction with the community as the prize backers had to comment on the post and share it with as many friends as the can. This is another way to improve the sense of community and reach the greatest number of backers interested in the project. For example:

“#ContestAlert: One lucky winner will receive a copy of the “Pathfinder Arena” board game from Giochi Uniti in our #worldwide #community #giveaway!”

All you have to do to enter is like this post and follow the instructions in the link below:

<https://gleam.io/XKbMi/pathfinder-arena-worldwide-giveaway>, accessed on 28 October 2014.

4.3. The Interaction in Pathfinder Arena Crowdfunding Campaign

The interaction represents the fundamental moment through which the exchange of information takes place, i.e., the receipt of innovation proposals and product modifications. Interaction with users was also very important to prove the product's commercial feasibility. The interaction between creators and backers was very intense, with 551 comments over 22 days.

There were also 31 updates from the creators, several on the first day of the campaign just after achieving the funding target while the company kept posting updates during the campaign, often addressed by adding new components or product expansions to share with the community.

In addition, in the comments section of the reward-based crowdfunding campaign of Pathfinder Arena, the creators responded with extreme promptness, clarity, and completeness to the doubts and questions of their supporters.

That is an example of an interaction:

“Hi Greg! It is a competitive game based on action points. The board can be modified by players pushing the tiles orthogonally. We are preparing a video update on the entire project and soon we will have the first prototype to show the gameplay plus next week you will be able to read the first draft of the rulebook.”

(Facebook—Pathfinder Arena Official Group)

Here is another comment with the same aim of solving a query from one of the participants in the community. In this case, the doubt relates to some aspects regarding the methods of financing the project:

“Hi Marco and thank you for being here!

-all SGs will include both standees + miniatures

-by pledging for 1 € there will be no free access to SGs, which are for free only for those who pledge at least the Basic pledge. However, SG will be available in the PM as optional buys.”

(Pathfinder Arena Kickstarter Reward-Based Campaign—Comments Section)

In fact, analyzing the sentiment of the comments, and their content as well, shows that the community appreciated the extreme accuracy of the answers which dealt with a variety of doubts.

The interaction mechanisms developed by the creators made it possible to stimulate backers' support for the reward-based crowdfunding campaign. By frequently replying to comments and posting numerous product development updates during the campaign, it greatly stimulated the sense of participation of the backers, who often interacted with the creators to provide advice or opinions on how the product could be improved or on which components. This could be added to increase the overall quality:

“To further stimulate them in the product development process and make them participate in the campaign it is essential that the backers feel heard, in this sense the interaction is fundamental it is necessary to respond, it is equally fundamental that if a backers provides a message, it is listened to and shown in what way then the board has been integrated.”

Moreover, the interaction between creators and backers allows the former to constantly receive advice and feedback about the project in case there are aspects or components of the product to improve. In fact, the reward-based crowdfunding campaign reduces risk due to interaction with backers. Stefano Carolis reports that:

“The interaction with the backers allows you to create value, acquire knowledge, and innovate the product. With the interaction you can receive feedback, you can understand the preferences of consumers and you can and understand how to modify the product to make it more appealing.”

In fact, while the product was designed to be played by several players at once at the beginning, after the requests of various players through the social community, the creators decided to change this aspect and give players the opportunity to play in solo mode:

“The game we imagined and produced was a game for 2 to 4 people. Since many people had asked for cooperative or solo mode, we had it implemented during the campaign and developed it. It is feedback that came during the campaign and that we started developing during the campaign.”

There are several moments preceding the release of the crowdfunding campaign in which the creators asked for feedback from their supporters for the production of some components or parts of the final product. This strategy had various advantages for the creators, including reducing their commercial risk related to placing a product on the market that was already validated by a relevant part of its customers community, and the possibility of making backers feel important in product development and not just mere customers to sell it to. This should create a strong sense of belonging towards the campaign on the part of the backers and, therefore, greater support for the realization of the project. This kind of involvement stimulates collaboration, dialogue, and trust in relationships.

Furthermore, this kind of interaction with backers allows creators to mitigate the risk of marketing the product. The advice and feedback from the funders of the project allow the company to develop a product that is in line with their expectations and which, consequently, is more attractive in the sales phase. Here is an example (published on 24 November 2021):

“Heroes, as the campaign keeps going, we wanted to share with you the creation of one of the stretch goal miniatures: Amiri, the barbarian! Vote now for your preferred pose to see it realized!”

Then, we see the comment to the post which reflects the will on the part of the backers to advise and leave feedback in order to improve the product and its components, allowing the company to develop a product that is as in line as possible with the expectations of the reference community:

Jacob wrote: *“Amiri is a Barbarian, not a Princess—Please don't give her the “Romantic-Kiss Leg-Pose”.*

Nathan wrote: *“I'm not really a fan of either pose, but the right one is worse. Please make sure the proportions are warrior proportions, not fashion model proportions. Look at the official one, it's really good”.*

James wrote: *“Please try and keep the poses balanced and sturdy. I’m really turned off by a lot of “action poses” like running and jumping. It just makes the sculpt seem weakened. But I print minis and it’s just a personal preference. I also trust Claudio Casini and support his Patreon, I know he will do it right. Keep up the great work I love!!!”*

In these cases, the commentators give feedback to the company regarding a certain aspect that the character should not have. This type of interaction allows creators to reduce their commercial risk, as they receive product validation from their prospective customers before they even put the product on the market.

Other important initiatives to stimulate interaction with the supporters include the virtual meeting. For example, on 7 June 2021, they organized a virtual session of “questions&answers on Pathfinder Arena” in which they show the rule of the game and some characters. As seen from the Facebook video demonstration, some people intervened to suggest changes to the game modes and settings. As shown, it is clear how the interaction through different channels helps to create value. In fact, in the antecedent and subsequent phase of the campaign, the interaction allows potential backers to provide suggestions to improve the product.

4.4. The Incentives in the Pathfinder Arena Crowdfunding Campaign

Another important aspect to stimulate lenders to actively participate in the community is the use of incentives. In fact, incentives not only encourage individuals to financially support the project but also to actively participate in the community, providing advice and feedback. Giochi Uniti used several incentive mechanisms. These incentives are a key to a successful campaign. In fact, as demonstrated by several studies [81], the pledges and prizes proposed by creators play a central role in stimulating and incentivizing lenders to support prize crowdfunding projects. Stefano De Carolis told us:

“To further stimulate them in the product development process and make them participate in the campaign it is essential to provide them with incentive to participate in the campaign”

First of all, there are the early birds. During the first day of the campaign, the creators stimulate backers to participate offering a lower price. Often, this tool is used in a campaign for the first few days, often just IN the first 48 h, to stimulate early adopters in buying and to create the so-called ghost effect, thus motivating even those who failed to take part in these offers. This effect derives from the fact that in reward-based crowdfunding campaigns, the out-of-print prizes are not deleted from the menu in such a way make information about the previous commitment of the other backers public. This implies a positive stimulus on the future behavior of those who intend to finance the project. Often, this effect comes from becoming aware of a favorable purchase or financing option that was available until recently and is no longer available. However, this could be a double-edged sword, since those who have not managed to participate in the offers may give it up as they find the product more expensive than once was. According to Stefano Carolis:

“Timed pledges are very important. They give us the opportunity to concentrate the funding of supporters in certain time intervals. This is very convenient, especially when combined with the early birds strategy. In fact, as has happened to us, thanks to these mechanisms we were able to reach the goal we set ourselves in the first 5 h of the campaign. This meant that those who arrived on the campaign page in the following days were reassured and motivated to finance our project thanks to the high level of contribution already achieved up to that moment.”

Pledges and strategies linked to early-bird mechanisms, therefore, are a key element in reward-based crowdfunding campaigns, since they allow creators to stimulate the external motivations of their backers, offering a reward or prizes in exchange for a variable financial contribution. Finally, time-limited pledges offer a great incentive mechanism that creates the feeling of missing out on unrepeatability opportunity if the individual fails to contribute to the project in this limited period of time.

At the same time, Giochi Uniti included several “add-ons” to the campaign—i.e., pieces of the game for the backers to buy separately after the campaign ended. Moreover, they coupled the add-ons with several pledge levels; in fact, they designed the campaign with 10 pledge levels that the backers could choose from to finance the campaign, including a donation-based one.

The presence of different types of pledges influences the behavior of those who intend to finance the project. Motivating the backers to participate and finance the crowdfunding campaign is essential for its success [62]. In this regard, the pledges are the main leverage. In fact, thanks to the possibility of receiving prizes and rewards in exchange for a financial contribution to the project, the backers have a greater incentive to support the development of the project. Often, individuals are motivated by receiving the product or its components before anyone else as well as by the substantial discounts that are obtained in the pre-marketing phase of the product:

“Those who finance a certain amount to obtain an additional component or product expansion are pushed to further finance the project if it becomes possible to add additional parts to the product.”

The pledges, and the possibility to see how many people have already chosen them, give the community more incentive to take part in the project. In fact, several individuals do not want to miss the opportunity to own a limited edition of a game piece due to their support to the campaign, while others may dislike the idea of being excluded from the development of the project at all.

“The pledges act as an incentive for those who want to adopt the product before its release on the market.”

Pledges are the typical incentive of reward-based crowdfunding campaigns. They must be defined after an analysis of the product’s perceived value to motivate the backers in spending the money needed to finance the development of the whole product. Each contribution level gives the opportunity to receive some additional piece or expansion of the product. There are several different strategies which drive users to buy more expensive pledges, as illustrated by Stefano de Carolis:

“We must make sure that the backers always have the doubt that with their contribution level they are losing some really important component of the game and that, perhaps, by spending a little more they would be more satisfied with their purchase. An excellent strategy is that of creating pledges that are not too far from each other from the point of view of their cost, so that the backers, knowing that they will receive a greater reward by spending more, will not think twice on it.”

Finally stretch goals are used. The stretch goals proposed by the company on the reward-based crowdfunding campaign are 21 and are divided into three main categories:

1. Stretch goals linked to the achievement of a certain number of followers on social networks. In this category, five stretch goals are present, with four linked to the official Facebook group, while the remaining one belongs to the BGG page. These are the two main channels used by the company to create and spread its community of supporters, both before and during the reward-based crowdfunding campaign.
2. Stretch goals linked to the achievement of certain contribution thresholds on the Kickstarter platform. They are met when the funds gathered with the campaign reach a given threshold. For example, the main goal of the Pathfinder Arena campaign went from EUR 50,000 to EUR 140,000. Achieving these objectives allows contributors to receive additional components or product expansions, encouraging the reference community to increase their level of funding in order to reach them. The effect of these goals is based on the real possibility of the campaign to reach the last level of contribution. Unrealistic goals result in a net decrease in the backer’s motivation to finance the project. Therefore, it becomes essential to set these kinds of objectives by clearly evaluating the possibility of achieving them to attract funding from supporters.

3. Time-related stretch goals. In the latter case, time-related stretch goals are very important to motivate funders in certain time intervals, keeping a steady pace for the campaign. In fact, during the PathFinder Arena campaign, these objectives have been grouped in the last week to maximize the contribution level from their late supporters.

If the creators can create realistic objectives connected to the contribution system through pledges, there are excellent chances that the reward-based crowdfunding campaign can reach the intended funding objective [88]. Stretch goals are incentive mechanisms that strengthen the sense of community and push backers not to act individually with the aim of a single reward or reward but rather to act collectively in pursuit of wider objectives that can be enjoyed by all participants in the community.

The stretch goals are a key element to the success of a reward-based campaign. Stretch goals are essential for encouraging individuals in a reference community to participate and finance a reward-based crowdfunding campaign [85]. The existence of certain objectives to unlock extra elements of the product incentivizes the community to act collectively to achieve these types of objectives. Each company should carefully evaluate its own set of extra objectives to be achieved in order to avoid creating goals that are too difficult. If unreachable, the participation of the community in financing the project can be discouraged [87]:

“The stretch goals act as a stimulus to increase the level of contributions and give the whole community the opportunity to unlock additional components or expansion of the funded product.”

5. Implications

5.1. Theoretical Implications

In line with the previous study, our results expand the literature on the role of reward, i.e., whether reward crowdfunding was used to receive funds to support the project, or specifically to test the project commercially. As demonstrated by the analysis of the case study, the creators referred to the feedback and advice of their reference community for the development of products that were in line with their expectations. Mollick [7] and Gutiérrez-Urtiaga and Sáez-Lacave [38] point out that rewards-based crowdfunding platforms bring benefits that go beyond simple financing or raising capital, but are rather used as marketing tools to validate proposed project activities.

Furthermore, on the role of communication, our results confirm previous theories on the importance of providing correct information on the campaign, in particular for the description of the project and the use of clear and specialized language [30,72,77,78].

Important conclusions also concern the need for creators to create a sense of community/identity in which their supporters can recognize themselves [28,76]. This is because the motivations that push financiers to finance a project are often of a social nature and reflect the values and interests of a given social context [62,80].

As stated by Tajfel and Turner [34], individuals tend to behave according to the social and cultural values of their group in line with the theory of social identity [58,59]. In particular, social identity is a fundamental factor in crowdfunding campaigns as it is often able to influence the behavior and methods of financing of lenders. Therefore, as revealed by the analyzed case study, the ability to understand the social identity of those to whom your product is aimed by creating an ad hoc communication is a key element to create a community of lenders and motivate the crowd to invest in their crowdfunding project [30].

This is mainly due to the fact that individuals are encouraged to finance a crowdfunding campaign, not only for reasons related to a possible compensation or return on investment, but mainly for intrinsic reasons [80].

Creating a campaign that is in line with the crowd’s social and cultural values, in which one’s community of reference can identify itself, in line with the social identity theory, is a very important engagement mechanism that may help to create a successful crowdfunding project [34,54]. Finally, as shown by the Pathfinder Arena case, the combination of the social identity theory and the use of social media is also a key element in encouraging supporters

in their community to fund the project. Adequately using social networks and constantly updating the project development can create trust among the financiers and encourage them to support the proposed initiative [22].

The role of the interaction between creators and supporters is also critical to the success of a rewards-based crowdfunding campaign. The analysis of the case study confirms what was stated by authors such as [80].

Finally, our study sheds light on the fact that creators or anyone who decides to create a crowdfunding campaign should place the necessary focus on the mechanisms that can incentivize backers to support a specific reward-based crowdfunding project. In particular, the tools of “early birds” and “stretch goals” are able to radically influence the financing behavior of backers, to the point of decreeing the success or failure of a campaign [84,89,92]. However, our results are not limited to confirming previous results, as they also provide important theoretical results. Specifically, our findings address a topic that has not been previously studied in the literature, such as engaging the crowd to create value and knowledge. Previous studies show how the quality of communication, the sense of community, the role of interaction, and the use of incentive mechanisms, analyzed with the lens of the social identity theory [34], guarantee the success of the campaign. In our case, the focus is not on how these tools allow the achievement of financial objectives, but on how these tools can foster the involvement of the reference community and generate value.

5.2. Managerial Implications

This paper also offers interesting results for practitioners. Our results show that reward-based crowdfunding may be used to obtain financial resources, and also to minimize business risks. Reward-based crowdfunding, in the presence of certain characteristics, allows founders to receive feedback that may prove fruitful in improving the product or service, letting the company enter the market with a product that is as satisfying as possible for consumers. To this end, however, it is needed that the crowdfunding campaign managers carry on different actions. The case study showed that the most important aspect is the creation of a sense of community. Crowdfunding campaign managers should develop, and implement, a series of activities to strengthen the cohesion between backers, so that they can not only financially support the campaign itself, but also support the product improvement processes. For example, before the launch of the campaign, we encourage organization around social events as well as the use of discount tools (such as the early birds mechanisms). This provides companies with a large audience of potential buyers who may be interested in the products as the campaign, in its very first moments, creates momentum, making it possible for the campaign to reach its basic goals in a very short amount of time, even in just a few hours in some cases. The sense of belonging to a community acts as a stimulus for backers to not only financially participate in the production of the product but also through suggestions.

It also emerged that it is indispensable to ensure a good communication. We encourage crowdfunding campaign managers to use images and videos in order to better understand the characteristics of the product, which is also essential to allow backers to provide suggestions. Moreover, it is necessary to have an effective interaction. It is essential that the communication is not unidirectional, but bidirectional. The use of social media therefore appears to be the main tool to interact with backers.

Through this interaction, it is possible to obtain feedback that allows us to improve the product and adapt it according to consumers’ preferences, thus reducing the risk of entering the market with a unsatisfactory product. In the case of games, it is useful to provide demo versions in order to help players understand the rules and the dynamics of the game. Finally, an important set of tools to stimulate backers are incentives such as pledges and stretch goals, which enhance active participation in the crowdfunding campaign.

6. Research Limits and Future Research

The use of a single case study is the main limit of this research. Differently from a study using a quantitative approach, our results are not directly transferable to other contexts, nor are they generalizable to all types of crowdfunding. This is a qualitative and exploratory study based on secondary data and interviews aimed at investigating aspects that have not been previously studied in the academic literature. For this reason, the aim of the research is not obtain a generalizable model from our results, but to provide useful insights on a question still unanswered. Indeed, our contribution provides a deeper understanding and articulation of a specific case that could provide insights into the issues examined [94]. Moreover, we focus only on reward-based crowdfunding, so future research may focus on other types of crowdfunding. In particular, future research should focus on the use of pledges and stretch goals in sectors other than boardgames, or gaming in general, and it could also be interesting to evaluate their impact on campaigns that do not immediately reach their main goal.

Author Contributions: Conceptualization, A.P. and V.M.; methodology, A.P. and V.M.; writing—original draft preparation, A.P. and V.M.; writing—review and editing, AP. and V.M.; supervision, M.T. and C.T.; project administration, A.P. and V.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data will be made available from the corresponding authors on reasonable request.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Liang, T.-P.; Wu, S.P.-J.; Huang, C.-C. Why funders invest in crowdfunding projects: Role of trust from the dual-process perspective. *Inf. Manag.* **2019**, *56*, 70–84. [CrossRef]
2. Zhao, L.; Vinig, T. Guanxi, trust and reward-based crowdfunding success: A Chinese case. *Chin. Manag. Stud.* **2019**, *14*, 455–472. [CrossRef]
3. Efrat, K.; Gilboa, S. Relationship approach to crowdfunding: How creators and supporters interaction enhances projects' success. *Electron. Mark.* **2020**, *30*, 899–911. [CrossRef]
4. Macht, S.; Chapman, G. Getting more than money through online crowdfunding. *Asia Pac. J. Bus. Adm.* **2019**, *11*, 171–186. [CrossRef]
5. Brown, T.E.; Boon, E.; Pill, L.F. Seeking funding in order to sell: Crowdfunding as a marketing tool. *Bus. Horiz.* **2017**, *60*, 189–195. [CrossRef]
6. Belleflamme, P.; Omrani, N.; Peitz, M. The economics of crowdfunding platforms. *Inf. Econ. Policy* **2015**, *33*, 11–28. [CrossRef]
7. Mollick, E. The dynamics of crowdfunding: An exploratory study. *J. Bus. Ventur.* **2014**, *29*, 1–16. [CrossRef]
8. Troise, C.; Matricano, D.; Sorrentino, M.; Candelo, E. Investigating investment decisions in equity crowdfunding: The role of projects' intellectual capital. *Eur. Manag. J.* **2021**, 1–13. [CrossRef]
9. Troise, C.; Tani, M.; Jones, P. Investigating the impact of multidimensional social capital on equity crowdfunding performance. *Int. J. Inf. Manag.* **2020**, *55*, 102230. [CrossRef]
10. Drover, W.; Busenitz, L.; Matusik, S.; Townsend, D.; Anglin, A.; Dushnitsky, G. A review and road map of entrepreneurial equity financing research: Venture capital, corporate venture capital, angel investment, crowdfunding, and accelerators. *J. Manag.* **2017**, *43*, 1820–1853. [CrossRef]
11. Belleflamme, P.; Lambert, T.; Schwienbacher, A. Crowdfunding: Tapping the right crowd. *J. Bus. Ventur.* **2014**, *29*, 585–609. [CrossRef]
12. Wehnert, P.; Baccarella, C.V.; Beckmann, M. In crowdfunding we trust? Investigating crowdfunding success as a signal for enhancing trust in sustainable product features. *Technol. Forecast. Soc. Chang.* **2019**, *141*, 128–137. [CrossRef]
13. Mollick, E.R.; Kuppaswamy, V. After the campaign: Outcomes of crowdfunding. *UNC Kenan-Flagler Res. Pap.* **2014**, 1–18. Available online: <http://ssrn.com/abstract=2376997> (accessed on 28 October 2014). [CrossRef]
14. Mollick, E.R. The unique value of crowdfunding is not money—It's community. *Harvard Business Review*, 21 April 2016.
15. Roma, P.; Petruzzelli, A.M.; Perrone, G. From the crowd to the market: The role of reward-based crowdfunding performance in attracting professional investors. *Res. Policy* **2017**, *46*, 1606–1628. [CrossRef]

16. Colombo, M.G.; Shafi, K. Receiving external equity following successfully crowdfunded technological projects: An informational mechanism. *Small Bus. Econ.* **2021**, *56*, 1507–1529. [[CrossRef](#)]
17. Chang, Y.P.; Dong-Hong, Z.; Ho, S.W. The influence of service quality on gamer loyalty in massively multiplayer online role-playing games. *Soc. Behav. Personal. Int. J.* **2011**, *39*, 1297–1302. [[CrossRef](#)]
18. Song, Y.; Berger, R.; Yosipof, A.; Barnes, B.R. Mining and investigating the factors influencing crowdfunding success. *Technol. Forecast. Soc. Chang.* **2019**, *148*. [[CrossRef](#)]
19. Nevin, S.; Gleasure, R.; O'Reilly, P.; Feller, J.; Li, S.; Cristoforo, J. Social identity and social media activities in equity crowdfunding. In Proceedings of the 13th International Symposium on Open Collaboration, Galway, Ireland, 23–25 August 2017; pp. 1–8.
20. Ahlers, G.K.; Cumming, D.; Günther, C.; Schweizer, D. Signaling in equity crowdfunding. *Entrep. Theory Pract.* **2015**, *39*, 955–980. [[CrossRef](#)]
21. Vulkan, N.; Åstebro, T.; Sierra, M.F. Equity crowdfunding: A new phenomena. *J. Bus. Ventur. Insights* **2016**, *5*, 37–49. [[CrossRef](#)]
22. Vismara, S. Sustainability in equity crowdfunding. *Technol. Forecast. Soc. Chang.* **2019**, *141*, 98–106. [[CrossRef](#)]
23. Troise, C.; Tani, M. Exploring entrepreneurial characteristics, motivations and behaviours in equity crowdfunding: Some evidence from Italy. *Manag. Decis.* **2021**, *59*, 995–1024. [[CrossRef](#)]
24. Troise, C.; Tani, M.; Dinsmore, J.; Schiuma, G. Understanding the implications of equity crowdfunding on sustainability-oriented innovation and changes in agri-food systems: Insights into an open innovation approach. *Technol. Forecast. Soc. Chang.* **2021**, *171*, 120959. [[CrossRef](#)]
25. Armour, J.; Enriques, L. The promise and perils of crowdfunding: Between corporate finance and consumer contracts. *Mod. Law Revier* **2019**, *399*, 34–35. [[CrossRef](#)]
26. Lambert, T.; Schwienbacher, A. *An Empirical Analysis of Crowdfunding*; Mimeo; Louvain School of Management: Ottignies-Louvain-la-Neuve, Belgium, 2010.
27. Petitjean, M. What explains the success of reward-based crowdfunding campaigns as they unfold? Evidence from the French crowdfunding platform KissKissBankBank. *Financ. Res. Lett.* **2018**, *26*, 9–14. [[CrossRef](#)]
28. Wasko, M.M.; Faraj, S. Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS Q.* **2005**, *29*, 35–57. [[CrossRef](#)]
29. Hau, Y.S.; Kim, B.; Lee, H.; Kim, Y.G. The effects of individual motivations and social capital on employees' tacit and explicit knowledge sharing intentions. *Int. J. Inf. Manag.* **2013**, *33*, 356–366. [[CrossRef](#)]
30. Gerber, E.; Hui, J.; Pei-Yi, P.K. Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms. *Comput. Support. Coop. Work.* **2012**, *10*, 2.
31. Gleasure, R.; Feller, J. Does heart or head rule donor behaviors in charitable crowdfunding markets? *Int. J. Electron. Commer.* **2016**, *20*, 499–524. [[CrossRef](#)]
32. Wang, N.; Li, Q.; Liang, H.; Ye, T.; Ge, S. Understanding the importance of interaction between creators and backers in crowdfunding success. *Electron. Commer. Res. Appl.* **2018**, *27*, 106–117. [[CrossRef](#)]
33. Berger, R. Entrepreneurial learning about the venture capitalist community. *Bus. IT* **2018**, *1*, 1–12. [[CrossRef](#)]
34. Tajfel, H.; Turner, J.C.; Austin, W.G.; Worchel, S. An integrative theory of intergroup conflict. In *Organizational Identity: A Reader*; University of Bristol: England, UK, 1979; Volume 56.
35. Unerman, J.; O'Dwyer, B. Theorising accountability for NGO advocacy. *Account. Audit. Account. J.* **2006**, *19*, 349–376. [[CrossRef](#)]
36. Dushnitsky, G.; Massimiliano, G.; Piva, E.; Rossi-Lamastra, C. Crowdfunding in Europe: Determinants of platform creation across countries. *Calif. Manag. Rev.* **2016**, *58*, 44–71. [[CrossRef](#)]
37. Von Hippel, E. *Democratizing Innovation*; MIT Press: Boston, MA, USA, 2005.
38. Aygoren, O.; Koch, S. Community Support or Funding Amount: Actual Contribution of Reward-Based Crowdfunding to Market Success of Video Game Projects on Kickstarter. *Sustainability* **2021**, *13*, 9195. [[CrossRef](#)]
39. Von Hippel, E. Lead users: A source of novel product concepts. *Manag. Sci.* **1986**, *32*, 791–805. [[CrossRef](#)]
40. Franke, N.; Von Hippel, E.; Schreier, M. Finding commercially attractive user innovations: A test of lead-user theory. *J. Prod. Innov. Manag.* **2006**, *23*, 301–315. [[CrossRef](#)]
41. Marchi, G.; Giachetti, C.; de Gennaro, P. Extending lead-user theory to online brand communities: The case of the community Ducati. *Technovation* **2011**, *31*, 350–361. [[CrossRef](#)]
42. Sawhney, M.; Verona, G.; Prandelli, E. Collaborating to create: The internet as a platform for customer engagement in product innovation. *J. Interact. Mark.* **2005**, *19*, 4–17. [[CrossRef](#)]
43. Beaulieu, T.; Sarker, S.; Sarker, S. A conceptual framework for understanding crowdfunding. *Commun. Assoc. Inf. Syst.* **2015**, *37*, 1. [[CrossRef](#)]
44. Scholz, N. *The Relevance of Crowdfunding: The Impact on the Innovation Process of Small Entrepreneurial Firms*; Springer: Berlin/Heidelberg, Germany, 2015.
45. Cumming, D.J.; Leboeuf, G.; Schwienbacher, A. Crowdfunding models: Keep-it-all vs. all-or-nothing. *Financ. Manag.* **2020**, *49*, 331–360. [[CrossRef](#)]
46. Regner, T.; Crosetto, P. The experience matters: Participation-related rewards increase the success chances of crowdfunding campaigns. *Econ. Innov. New Technol.* **2021**, *30*, 843–856. [[CrossRef](#)]
47. Rossi, A.; Vismara, S. What do crowdfunding platforms do? A comparison between investment-based platforms in Europe. *Eurasian Bus. Rev.* **2018**, *8*, 93–118. [[CrossRef](#)]

48. Zhang, H.; Chen, W. Crowdfunding technological innovations: Interaction between consumer benefits and rewards. *Technovation* **2019**, *84*, 11–20. [CrossRef]
49. Junge, L.B.; Laursen, I.C.; Nielsen, K.R. Choosing crowdfunding: Why do entrepreneurs choose to engage in crowdfunding? *Technovation* **2022**, *111*, 102385. [CrossRef]
50. Newman, A.; Schwarz, S.; Ahlstrom, D. Microfinance and entrepreneurship: An introduction. *Int. Small Bus. J.* **2017**, *35*, 787–792. [CrossRef]
51. Gutiérrez-Urtiaga, M.; Sáez-Lacave, M.I. The promise of reward crowdfunding. *Corp. Gov. Int. Rev.* **2018**, *26*, 355–373. [CrossRef]
52. Kaminski, J.C.; Hopp, C. Predicting outcomes in crowdfunding campaigns with textual, visual, and linguistic signals. *Small Bus. Econ.* **2020**, *55*, 627–649. [CrossRef]
53. Armour, J.; Enriques, L. Equity Crowd Funding: An Acid Test for Securities Regulation. In *Capital Markets Union and Beyond*; The MIT Press: Cambridge, MA, USA; London, UK, 2019; p. 203.
54. Trepte, S.; Krämer, N. Expanding social identity theory for research in media effects: Two international studies and a theoretical model. *Hambg. Forsch. Zur Soz.* **2007**, *78*. Available online: <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-362237> (accessed on 28 October 2014).
55. McLeod, S. Social identity theory. *Simply Psychol.* **2008**. Available online: <http://www.simplypsychology.org/social-identitytheory.html> (accessed on 28 October 2014).
56. Thies, F.; Wessel, M.; Rudolph, J.; Benlian, A. *Personality Matters: How Signaling Personality Traits Can Influence the Adoption and Diffusion of Crowdfunding Campaigns*; Darmstadt Technical University, Department of Business Administration, Economics and Law, Institute for Business Studies: Darmstadt, Germany, 2016.
57. Akerlof, G.A.; Kranton, R.E. Economics and identity. *Q. J. Econ.* **2000**, *115*, 715–753. [CrossRef]
58. Kromidha, E.; Robson, P. Social identity and signaling success factor in online crowdfunding. *Entrep. Reg. Dev.* **2016**, *28*, 605–629. [CrossRef]
59. Gerber, E.M.; Hui, J. Crowdfunding: Motivations and deterrents for participation. *ACM Trans. Comput.-Hum. Interact.* **2013**, *20*, 1–32. [CrossRef]
60. Mohammadi, A.; Shafizadeh, M.; Johan, S. *A Signaling Theory of Entrepreneurial Venture's Valuation: Evidence from Early Termination of Venture Capital Investment*; Stockholm Royal Institute of Technology, CESIS-Centre of Excellence for Science and Innovation Studies: Stockholm, Sweden, 2014.
61. Wu, S.; Wang, B.; Li, Y. How to Attract the Crowd in Crowdfunding? *Int. J. Entrep. Small Bus.* **2015**, *24*, 322–334. [CrossRef]
62. Cappa, F.; Rosso, F.; Hayes, D. Monetary and social rewards for crowdsourcing. *Sustainability* **2019**, *11*, 2834. [CrossRef]
63. Mueller, S.L.; Thomas, A.S. Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *J. Bus. Ventur.* **2001**, *16*, 51–75. [CrossRef]
64. Hoffman, D.L.; Fodor, M. Can You Measure the ROI of Your Social Media Marketing. *MIT Sloan Manag. Rev.* **2010**, *52*, 41–49.
65. Resnick, P.; Kraut, R. Evidence-based Social Design: Introduction. In *Evidence-Based Social Design: Mining Social Sciences to Build Online Communities*; MIT Press: Cambridge, MA, USA, 2011.
66. Maiolini, R.; Cappa, F.; Fasano, F. Linguistic Style and Crowdfunding: Moving the Current Debate Forward. In *New Frontiers in Entrepreneurial Finance Research*; SG: Singapore, 2020; pp. 149–179.
67. Kromidha, E. Crowdfunding and social identity in Northern and Latin America. In Proceedings of the 6th Latin American and European Meeting on Organization Studies, Santiago, Chile, 6–9 April 2016; pp. 6–9.
68. Frydrych, D.; Bock, A.J.; Kinder, T. Creating project legitimacy—the role of entrepreneurial narrative in reward-based crowdfunding. In *International Perspectives on Crowdfunding*; Emerald Group Publishing Limited: Edinburgh, UK, 2016.
69. Gafni, H.; Hudon, M.; Périlleux, A. Business or basic needs? The impact of loan purpose on social crowdfunding platforms. *J. Bus. Ethics* **2021**, *173*, 777–793. [CrossRef]
70. Ryan, R.M.; Deci, E.L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am. Psychol.* **2000**, *55*, 68–78. [CrossRef]
71. Antikainen, M.; Mäkipää, M.; Ahonen, M. Motivating and supporting collaboration in open innovation. *Eur. J. Innov. Manag.* **2010**, *13*, 100–119. [CrossRef]
72. Cappa, F.; Laut, J.; Porfiri, M.; Giustiniano, L. Bring them aboard: Rewarding participation in technology-mediated citizen science projects. *Comput. Hum. Behav.* **2018**, *89*, 246–257. [CrossRef]
73. Buttice, V.; Colombo, M.G.; Wright, M. Serial crowdfunding, social capital, and project success. *Entrep. Theory Pract.* **2017**, *41*, 183–207. [CrossRef]
74. Reiss, S. Multifaceted nature of intrinsic motivation: The theory of 16 basic desires. *Rev. Gen. Psychol.* **2004**, *8*, 179–193. [CrossRef]
75. Füller, J.; Bartl, M.; Ernst, H.; Mühlbacher, H. Community based innovation: How to integrate members of virtual communities into new product development. *Electron. Commer. Res.* **2006**, *6*, 57–73. [CrossRef]
76. Kunz, M.M.; Bretschneider, U.; Erler, M.; Leimeister, J.M. An empirical investigation of signaling in reward-based crowdfunding. *Electron. Commer. Res.* **2017**, *17*, 425–461. [CrossRef]
77. Parhankangas, A.; Renko, M. Linguistic style and crowdfunding success among social and commercial entrepreneurs. *J. Bus. Ventur.* **2017**, *32*, 215–236. [CrossRef]
78. Kim, T.; Por, M.H.; Yang, S.B. Winning the crowd in online fundraising platforms: The roles of founder and project features. *Electron. Commer. Res. Appl.* **2017**, *25*, 86–94. [CrossRef]

79. Grosse, M.; Pohlisch, J.; Korbel, J.J. Triggers of collaborative innovation in online user communities. *J. Open Innov. Technol. Market. Complex.* **2018**, *4*, 59. [[CrossRef](#)]
80. Vismara, S. Information cascades among investors in equity crowdfunding. *Enterpren. Theor. Pract.* **2018**, *42*, 467–497. [[CrossRef](#)]
81. Thürridl, C.; Kamleitner, B. What goes around comes around? Rewards as strategic assets in crowdfunding. *Calif. Manag. Rev.* **2016**, *58*, 88–110. [[CrossRef](#)]
82. Adam, M.; Wessel, M.; Benlian, A. Of early birds and phantoms: How sold-out discounts impact entrepreneurial success in reward-based crowdfunding. *Rev. Manag. Sci.* **2019**, *13*, 545–560. [[CrossRef](#)]
83. Wessel, M.; Adam, M.; Benlian, A. The impact of sold-out early birds on option selection in reward-based crowdfunding. *Decis. Support. Syst.* **2019**, *117*, 48–61. [[CrossRef](#)]
84. Chen, M.; Liu, Z.; Ma, C.; Gong, X. A distinctive early bird price in reward-based crowdfunding. *Electron. Commer. Res.* **2021**, *21*, 347–370. [[CrossRef](#)]
85. Renault, S. Stretch goals for dynamic crowdfunding campaign. *EconPapers* **2020**. [[CrossRef](#)]
86. Sitkin, S.B.; See, K.E.; Miller, C.C.; Lawless, M.W.; Carton, A.M. The Paradox of Stretch Goals: Organizations in Pursuit of the Seemingly Impossible. *Acad. Manag. Rev.* **2011**, *36*, 544–566.
87. Locke, E.A.; Latham, G.P. *New Developments in Goal Setting and Task Performance*; Routledge: London, UK, 2013.
88. Li, Z.; Jarvenpaa, S. Motivating IT-mediated crowds: The effect of goal setting on project performance in online crowdfunding. *SSRN* **2015**, *15*, 1–32. [[CrossRef](#)]
89. George, A.L.; Bennett, A. *Case Studies and Theory Development in the Social Sciences*; MIT Press: Cambridge, MA, USA, 2005.
90. Gerring, J. *Case Study Research: Principles and Practices*; Cambridge University Press: Cambridge, UK, 2006.
91. Aberdeen, T.; Yin, R.K. Case study research: Design and methods. Thousand Oaks, CA: Sage. *Can. J. Action Res.* **2013**, *14*, 69–71.
92. Mills, A.J.; Durepos, G.; Wiebe, E. *Encyclopedia of Case Study Research*; Sage Publications: New York, NY, USA, 2010.
93. De Massis, A.; Kotlar, J. The case study method in family business research: Guidelines for qualitative scholarship. *J. Fam. Bus. Strategy* **2014**, *5*, 15–29. [[CrossRef](#)]
94. Parker, L.D.; Northcott, D. Qualitative generalising in accounting research: Concepts and strategies. *Account. Audit. Account. J.* **2016**, *29*, 1100–1131. [[CrossRef](#)]