Crowdfunding: A New Approach to Entrepreneurship's Startup Phase

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ABSTRACT

Investors may support new commercial, cultural, or social enterprises in exchange for future commodities and activities. Crowdfunding is an essential part of project finance right now. Many people are intrigued about how crowdfunding works and how it may help start new businesses. Still, there is a lack of understanding and expertise on how crowdsourcing works and how it may assist these new initiatives to be successful. The most challenging task is obtaining financial support before establishing an entrepreneurial or creative venture. If the developer lacks links to venture capitalists or banks and a solid financial track record or commitment, they may have trouble getting project funding. This article explains crowdsourcing, a new kind of finance for company owners and project creators. According to this survey, the industry is not mainly established. Instead, it outlines CF's qualities and critical players. Crowdfunding enables a creative or patronage concept to be realized by collecting finances from many people online. Crowdfunding may be the answer for businesses or creatives that need resources. Research has uncovered many crowdsourcing business concepts and finance sources. We used empirical data to evaluate how it would assist capital deficit units and the strategy's merits and downsides from the founders, funders, and platform perspectives.

Keywords: Alternative Financing, Alternative Investment, Crowdfunding, Entrepreneur, Innovation

INTRODUCTION

In recent years, non-traditional project funding options have increased. This tendency is projected to continue, particularly among small-business owners. Changes in social structure and technology are leading to creative ways to support social, artistic, and economic groups. Traditional financial institutions lag behind their modern challengers.

Alternative finance is a technique to avoid using traditional funding sources like banks, charities, and the government, which require a lot of time and work. Crowd finance, or CF, is a pioneering subdivision of the financial industry that provides consumer loans, startup capital, and SME financing. New technologies are key distribution routes. These include websites and social media. Crowdfunding helps create economies and finance charity organizations and other socially significant activities (Wardrop et al., 2015). Entrepreneurs constantly look for better, more cutting-edge, and sometimes riskier methods to operate their firms. This helps them meet commercial and environmental requirements. Because of increased rivalry, businesses must continually seek new competitive advantages to remain ahead. According to the statistics above, companies are always looking for new business prospects requiring significant financial investments. The organization may fund current initiatives, other organizations (open Innovation), or the internet community (also known as crowdfunding).

In recent years, there has been a rapid expansion in the number of financing choices for non-traditional projects. It is anticipated that this pattern will persist, especially among proprietors of small businesses. Alterations in social structure and technological advancements are leading to the development of innovative approaches used to help social, artistic, and economic groupings. Traditional financial institutions are falling farther and further behind their more contemporary competitors. The use of conventional financing sources, such as banks, charities, and the government, all of which involve a significant amount of effort and time on the applicant's part, may be circumvented via alternative finance. For example, a pioneering segment of the financial industry that offers consumer loans, startup funding, and financing for small and medium-sized businesses is known as crowd finance, abbreviated as CF for short. The newest technologies are becoming more critical as distribution avenues. Websites and other social media platforms are included in this category. Crowdfunding contributes to the development of economies and may be used to support charitable organizations and other endeavors that have a meaningful societal impact (Wardrop et al., 2015). Entrepreneurs are always searching for new ways to run their businesses that are superior, more cutting-edge, and even sometimes riskier. Because of this, they can satisfy both environmental and business needs. Because of the heightened level of competition, companies always need to look for new methods to get a competitive edge to stay ahead of the game. Funding for ongoing projects could come from the organization itself, other organizations (via open Innovation), or the online community (also known as crowdfunding).

While entrepreneurs cannot fund a project alone or via a closed investment vehicle, they often encounter challenges when attempting to gather the required cash. This is because he does not have any collateral, enough cash flows, or a proven track record of successfully creating and operating a firm. As said by Kirsch et al. (2009) an uneven distribution of information is another factor that makes it difficult for investors to put a significant amount of money into brand-new businesses. Many business startups do not get funding, either because they do not have adequate assets to be used as collateral or because their attempts to persuade potential investors were unsuccessful. An entrepreneur has the choice of selecting one kind of finance from a large number of available alternatives. Entrepreneurs fund most businesses through their resources or credit card use or by soliciting loans from friends, family, or acquaintances. A bank or other financial institution, angel investors, and venture capital are all examples of additional potential funding sources. What choice an entrepreneur makes relies on conditions. However, the truth is that very few people who tries to start their businesses successfully obtain funds via any means of seeding capital. As (Pope, 2011) exemplified, barely three percent of the thousands of people who try their hand at entrepreneurship are successful. The purpose of this article is to provide a novel approach to finance that has the potential to be of significant assistance to business owners. In the contemporary period, some entrepreneurs have turned to a different way of capital creation known as "crowdfunding" (Belleflamme et al., 2014). This strategy involves soliciting financial support from a large group of individuals rather than from a small number of specialized investors. In this approach, entrepreneurs rely on the Internet to get financial aid from members of the general public as an alternative to obtaining financial assistance from investors. This method is used on a large scale in the process of raising funds, not only to begin new businesses but also to accomplish projects serving certain functions. Crowdfunding, also known as CF, is a beneficial instrument that may aid entrepreneurs in adopting new sources of entrepreneurial projects and managing initiatives, eventually forming new enterprises. The appeal of having a company that is already well-established is that, in general, people are interested in these companies in a more direct and active capacity, in the capacity of a shareholder. The most well-known illustration comes from the Pebble Watch, which was done by Agrawal et al. (2014). This watch was designed to function as a wrist-based interface for coordinating with an Android or iOS mobile. Eric Migicovsky, who previously had the expertise to create a watch for Blackberry, obtained the US $375,000 from affluent angel investors in Silicon Valley. In addition, he needs around one hundred thousand dollars to convert this prototype into a modest production unit. Despite significant goodwill and ties with many angel investors, he had trouble acquiring the necessary funds. On April 11, 2012, he decided to seek assistance from crowdsourcing. His objective was to acquire seeding financing in small sums from the community using the internet site Kickstarter. At the same time, he promised crowd funders a watch for every $120 (roughly) they donated. Surprisingly, the requisite amount of funds was raised in only two hours. After collecting $10 million in contributions from 68,929 backers over 37 days, he ended his campaign. Many entrepreneurs, like Eric Migicovsky, have been able to effectively finance their ventures by using a variety of crowdfunding portals. Kickstarter is the most popular platform for entrepreneurs to utilize when crowdsourcing money. Since the platform's launch on April 28, 2009, 9,970,400 supporters have contributed to the funding of projects, bringing the total number of projects successfully financed to 96,953 (out of 271,043). The total amount of money that has been committed is $2,109,885,617. The money offered to successful projects comes to $2.11 billion, whereas the amount pledged to fail projects is just $253 million. The success rate is 36.58 percent (data source: Kickstarter stats). "Global crowdfunding had rapid expansion in 2014, rising by 167 percent to reach $16.2 billion raised, a significant increase from the $6.1 billion raised in 2013." A survey on crowdfunding estimates that the business will grow by more than double its current size in 2015 and will eventually bring in $34.4 billion (Crowdsourcing, 2015). On February 9, 2014, BRAJI LCC began a Kickstarter campaign to raise a total of US $666,667 to fund the creation of Dash C Wireless Smart, In-Ear Headphones. Backers who pledged $179 for each dash were assured they would get the product in exchange for their support. By the time the day was through on November 14, 2015, 15,998 supporters had collectively given a total of $3,390,551 to support the realization of this project. M3D, an inventor of a 3D printer, successfully raised $3,401,361 USD via their Kickstarter project with the support of 11,855 supporters. This is another example of a successful Kickstarter project. This approach has been used to provide financial backing for many projects of varying scales, and as a result, CF has gained widespread recognition among the general public. To make this phenomenon more accessible, hundreds of online crowdfunding sites that provide services acting as intermediaries have emerged. There are just a few that are recognized globally (e.g., Kiva, JustGiving, Kickstarter, Rockerhub, Upstate, IndieGoGo, Crowdfunder, Spot-us, etc.). The central argument of this piece is that, provided that it is thoughtfully conceived and implemented, CF has the potential to either serve as an efficient alternative to the conventional methods of seed financing mechanisms or, at the very least, to bring about a greater degree of consistency among them. The most pressing necessity at this juncture is to do comprehensive research on it, which is precisely why it calls for constant surveillance. On the other hand, the fact that this pattern is still relatively novel presents a challenge in this context. Due to this factor, there is a dearth of empirical data, and the quantity of published scientific articles is still insufficient. On the other hand, many online articles and blogs are now available, and social media and print media have also begun to spotlight them in news and articles. Consequently, the popularity of this phenomenon has expanded Hemer (2011). However, the vast majority of individuals still do not understand what crowdfunding really is.

Crowdfunding: What It is and How it Works?

It is required for the individuals behind the transaction to be situated on an internet platform for the transaction to successfully take place and finance the project of an individual entrepreneur who is utilizing crowdfunding on the Internet. One definition of a crowd is "a large number of people congregated in a single location," and in this instance, that location is the Internet" Belleflamme et al. (2014).

When it is time to raise money to support a project, an entrepreneur will initially seek his family and his personal friends to assist him. This kind of funding is referred to as "love money"; it comes from those close to the entrepreneur. The rapid advancement of computer science and information technology, particularly the Internet, has ensured that most people today have access to the World Wide Web. Crowdfunding is only possible because Online 2.0 is "a predominantly collaborative web platform where users may share their resources," as O'Reilly (2007) put it. This paves the way for the development of crowdfunding. According to Kleemann et al. (2008), Web 2.0 is an essential tool that has made it easier for members of the "crowd" to participate.

In addition, Agrawal et al. (2011) researched the geography of crowdfunding or the dispersion of the locations of the various investors. According to the findings of this research, using the Internet as a venue for crowdfunding helps investors (the "crowd") and the people whose projects are being funded to overcome the challenges associated with the physical distance between them.

Additionally, in the case of crowdfunding, it is evident that the growth of social networks (such as Facebook, Twitter, and blogs, amongst others) has exacerbated the phenomenon. Thanks to the development of these platforms, it is now simple and easy to make the project's advertising relayed by the followers, as explained Moisseyev (2013).

In addition, Belleflamme et al. (2014) highlight the viral aspect of social networks, stating that "the purpose is to gather money for investment; normally, this is done by leveraging social networks, in particular via the Internet." According to Zhang et al. (2016), the phenomenon of crowdfunding would not have been able to spread so rapidly if the fast growth of social networks had not taken place. Social networks are instruments that engage in the viral marketing of projects. In layman's terms, crowdfunding is the practice of requesting funds for an enterprise or project from a big group of people spread out over several locations and collectively referred to as "the crowd." The phrase "crowdfunding" originates from "crowdsourcing," which refers to the practice of using the "crowd" to obtain ideas, opinions, and solutions in order to expand company operations. Crowdsourcing is well understood. It refers to delegating work to a large and sometimes nameless group of people—a "crowd of people"—and benefiting from the assets, resources, information, or experience these individuals possess. Getting financial support is the primary objective of crowdfunding. Since no exchange of monetary value is involved in crowdsourcing, using the Internet makes perfect sense. However, this might be problematic in crowdfunding since it sometimes entails the transfer of stock and sometimes requires the transfer of incentives. As a consequence, most platforms provide crowdfunding facilities based on rewards, and others offer a predetermined share of the profits.

LITERATURE REVIEW

Crowdfunding is still in its infancy as a field of study. SMEs in Indonesia might use a concept of crowdfunding presented by Ibrahim and Verliyantina (2012). They recommended using a web-based platform to provide microfinance to small business owners. Donors/funders, volunteers, and non-profit organizations are all involved in the screening, supervision, and management of money under the suggested paradigm. Davidsona & Poor (2016) observed that the founders of crowdfunding activities had a specific reason for doing so. Researchers Davidson & Poor (2016) discovered that, in addition to the more significant number of increased supporters, the greater the amount of money committed also raises the likelihood of the next project. However, the more significant the pledge to backers, the ratio decreases the likelihood of the next project. Tomczak & Brem's (2013) article on crowdfunding models, main participants, methods, and mechanism of operations was a comprehensive look at crowdsourcing. Schwienbacher & Larralde (2010) emphasized the need to establish a community of crowd-funders that receive extra benefits from their involvement in the project.

Allison et al. (2015) developed the cognitive assessment hypothesis to examine how microlenders react to entrepreneurial enterprises' internal and extrinsic signals. By maintaining ownership and giving more detailed information about risks, Ahlers et al. (2015) discovered that these signals might boost the chance of financing success. The correct board structure and more highly qualified board members may attract investors and increase the pace at which funds are raised. The internal social capital theory is the lens through which Colombo et al., (2015) examine the elements that contribute to the success of crowdfunding ventures. According to self-reinforcement theory, if a campaign obtains donations in the early stages, it is more likely to succeed. It was the goal of this research to discover what causes this "Succeeding begets Success" trend. To see whether this was the case, they collected quantitative data on the amount of money raised and how many supporters there were in the early stages of the project. They discovered that the reinforcing behavior was triggered by the money raised in the early stages. As a final point, they underlined the importance of the crowdfunding platform's social capital, which they believe would grow as a result of the excellent conduct of the audience. Based on their research, it looks as if internal social capital outweighs external social capital. Crowdfunding was studied by Agrawal et al. (2015). They were able to distinguish between local and distant donors. Investment patterns over time were unrelated to the distance between the artist and their backer. They realized that the distance between artists and possible funders might be necessary for various reasons, including spatially correlated preferences, progress tracking, search frictions, and reputation impacts linked to trust and the dangers associated with fraud or administrative ineptitude. Mollick (2014) argued that crowdfunding ventures often succeed by a tiny margin. High-quality projects, an expansive social network, initiatives representing regional cultural preferences, and the makeup of the community where a founder does business are all associated with project success. Because of this, donors' commitments may be fulfilled by project Founders. Large projects are more likely to encounter delivery delays. The logics of Content, Context, Linkages, and Stakeholders are the foundation of the crowdfunding phenomena, according to Valančienė & Jegelevičiūtė (2014). They determined that value is produced via the performance of all stakeholders by adopting a descriptive method.

Principal Participants in the Crowdfunding Phenomenon

There are three key participants in the crowdfunding process: the initiator or entrepreneur, the crowdfunding platform or middleman, and the funders. A forum is an intermediary that works as a matchmaker between entrepreneurs and investors. Then there are the fundraisers (creators, founders, entrepreneurs, initiators, etc.) who must collect money using a crowdfunding site. These persons are responsible for financing deficits. The CF platform assists entrepreneurs in gaining direct access to the finance industry and acquiring funds from only interested investors. Finally, there are the crowd funders (investors, lenders, supporters, contributors). They are referred to as the "crowd" in the term crowdfunding since they elect to financially support these ventures while assuming risk and anticipating a return (Ordanini et al., 2011). Typically, crowdfunding systems are web- and software-based Hemer (2011). They enable crowdfunding for both businesses and crowd-funders. These platforms' primary purpose is to encourage contact between entrepreneurs and crowd funders by showcasing projects and offering means to manage commitments. Some platforms, however, go further by coordinating public relations for initiators and negotiating with micropayment providers or banking institutions.

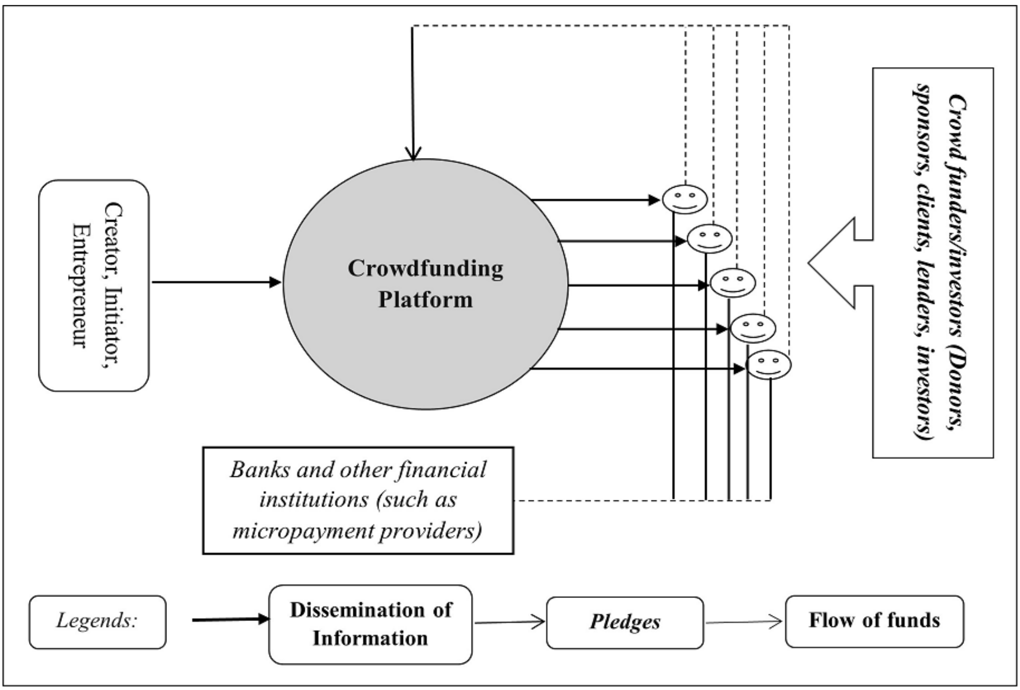

Figure 1: Principal Participants in the Crowdfunding Phenomenon

What motivates these platforms to fulfill their duty as intermediaries between initiators and individuals? Most websites do it for financial gain. Kickstarter charges creators 5% of the total funds raised but does not charge individual investors. The Indiegogo fee is 4% of the funds earned for successful projects and 9% if the fundraising target is not attained; investors pay nothing. Although the literature emphasizes these three characters solely, we cannot overlook the supporting functions of other agents. The nature of the model determines the category of these actors, although the involvement of financial institutions is universal. For example, this economic entity might be a bank or a supplier of micropayments. Several crowdfunding systems independently handle funding quantities. Typically, however, they outsource this duty to financial institutions such as banks or micropayment services providers (Figure 1).

Modeling Techniques of Crowd Funding

Before entering the crowdfunding market, a business owner should understand the many sorts of projects they want to launch. Therefore, they must know which projects are suitable for specific crowdfunding models. However, there are a few different methods of crowdfunding that may be found worldwide. The most well-known forms of crowdfunding are those centered on donations and rewards, followed by those founded on loans and equity (Parhankangas & Renko, 2017). In the first category of models, supporters provide financial support without counting on receiving anything in return. This paradigm supports philanthropic endeavors that benefit the public good (Parhankangas et al., 2019). Justgiving and GoFundMe are two examples of sites that often follow this paradigm. In contrast, supporters of a project provide financial backing in return for some benefit via a kind of crowdsourcing known as reward-based crowdfunding (Belleflamme et al., 2014). Platforms such as Kickstarter.com and Indiegogo.com are typical examples of this approach. In addition, investors offer capital to small firms via crowdsourcing based on loans, anticipating payback within a specific time (Hu et al., 2020). Kiva and Funding circle are two examples of platforms that often follow this paradigm. The most recent kind of crowdfunding is one that is based on equity. In this model, institutional investors either acquire the capital of new ventures or engage in an arrangement with an industry Deffains-Crapsky & Sudolska (2014). Wefunder and Localstake are the respective platforms that are used in this strategy.

Table 1: Models of crowdsourcing already in existence

Crowd Funding Model	Description	Examples
Donation	Crowd funders provide the founders of a community benefit initiative with donations to help get the project off the ground.	GlobalGiving, JustGiving, Causes, FundRazer
Reward	The founder accepts donations from backers of the crowdfunding campaign and provides those backers with early access to the product or any other incentive they choose.	Kickstarter, Indiegogo, RocketHub, Verkami, Pozible
Equity	The founder may grant them ownership of the company or stock in exchange for their financial contribution.	GrowVC, DragonInnovation, Upstart, crowdfunding
Lending	A loan is taken out by the founder from the backers of the crowdfunding campaign, who are promised future repayment of the principal amount, with or without interest.	Kiva, Zidisha, lending club, Propser

BENEFITS OF CROWDSOURCING

The Potential Founders

In the event of pre-sale crowdfunding, demand for the product may be determined via crowdsourcing. This sort of crowdfunding is known as "demand generation." An examination of all initiatives that have been developed in the past: Crowdfunding, on the other hand, offers a good window for the study of young entrepreneurial enterprises since it represents both successful and unsuccessful ideas equally. All types of new entrepreneurial ventures can be compared and studied. The matching principle states that the founder's need and the funder's desire to support must be matched. A funder who is very invested in the idea that the founder is working on can provide financial backing for the founder. In the offline financing module, the choice to finance is based almost entirely on the geographical location of the business owners. According to Kiva's measurements, the typical distance between the creator and financier is around 4,000 kilometers, as with Sellaband. Crowdfunding also provides a platform via which founders may gain feedback on their project ideas and get recommendations for improving their initiatives. This input can be used to better the products or projects they are working on. Like building a one-of-a-kind creation, individuals can provide suggestions on a particular use of the items that may boost the product's value.

Funders Potential

Diverse motives drive project donors. They may invest for humanitarian, political, or financial reasons. In equity crowdfunding, donors obtain ownership; in loan crowdfunding, they earn interest. Funders are rewarded in reward-based ventures, like having their name on the product, receiving acknowledgments, getting acknowledged in a movie, and meeting producers. Preselling gives backers the effect early. Philanthropy is a significant aspect of crowdfunding systems. Some financiers finance a project without expecting pre-buying, equity, or a predetermined return. After JOBS was passed in April 2012, crowdsourcing equity investments became permissible. Crowdfunding turns funders become investors. Before this Act, crowdfunding had no legal basis; hence investments were minimal.

The View from the Platform

The majority of the platforms are profit-driven businesses. The service fee is usually calculated as a percentage of the total money. The forum's function is to act as a connector between prospective funders and existing startups. These platforms have goals in place to enhance the number of projects that are completed successfully. On the other side, they also make an effort to provide financiers with novel and feasible initiatives, and they offer the possibility of financial investment. They also serve as a forum for cultivating charitable practices throughout the general population. These acts of patronage benefit the members of society who have passed away. In addition, they are accountable for ensuring a seamless flow of funds from donors to project initiators and businesses.

ADVANTAGES AND DRAWBACKS INHERENT IN DIFFERENT MODELS OF CROWDFUNDING

There are a variety of factors that influence an investor's decision to choose one of the four models outlined above. According to empirical evidence, a donation-based model reveals that altruism promotes donations (Burtch et al., 2013). As an incentive, however, one's desire for a reward and the viability of an idea posted on a website would blend with one's motivation (Gerber et al., 2011). In addition, research suggests that supporters' behavior in loan-based crowdfunding depends on pro-social reasons (Allison et al., 2015). It has also been observed that investors prefer equity-based crowdsourcing because of the potential for financial gains (Cruz, 2017). There are both pros and disadvantages to this occurrence. It takes time since fundraising efforts include completing several activities, such as comprehending the platform's criteria or developing and producing a video pitch (Cruz, 2017). It is also a worry that the project has to be shown to others. Entrepreneurs need to provide the public with correct information about their idea to achieve this. Because of the openness of the data, the likelihood of a resemblance rises. One person can have more information than another (André et al., 2017).

MAIN MODEL OF CHOICE

The framework of a dynamic game is modeled here for your perusal. This activity occurs in a covert setting, involving two players who rely on one another: the business owner and the investors. The amount of time is equivalent to $\boldsymbol{t} \in [\boldsymbol{0}, \boldsymbol{T}], \boldsymbol{T_d}\ \boldsymbol{s.t.}\ \boldsymbol{T_d} \geq \boldsymbol{T}$.

During the same period as $\boldsymbol{At\ t} = (\quad)$, the entrepreneur is responsible for recognizing all external elements and adjusting the endogenous ones. When the time reaches the value, the game is over, i.e., $\boldsymbol{At\ t = T.}$

If the loan is approved, the products or services are given to the investors if and when $\mathbf{t} = \mathbf{T_d}$.

In order to carry out the project, the entrepreneur has specific financial requirements that must be met. Because of this, he determines pricing, establishes charges, and implements quantitative controls to increase the likelihood that $\boldsymbol{S_t} > \boldsymbol{K\ s.t.K - costs} \geq \boldsymbol{F}$.

Entrepreneurs provide three types of investment: charitable contributions, direct investments, and returns on investment that accrue over time. Active investments offer investors the option to engage actively in the project, while gifts and passive investments assure that they will be passive participants. Fixed expenses are a good way to illustrate active vs. passive participation: $\boldsymbol{C^{PI}\ and\ C^{AI}}$**.** In active and passive investments, the entrepreneur has a marginal cost of $\boldsymbol{C^{PI}}$.

In most cases, business owners choose to implement quantitative controls, which are also sometimes referred to as $\boldsymbol{Q^{PI}\ and\ Q^{AI}}$**.** Donations, passive investments, and active investments are each provided at a price set and equivalent to $\boldsymbol{p^D}, \boldsymbol{p^{PI} and\ p^{AI}}$. Therefore, utility enhancement should always precede an investment's primary goal. This maximizing may be accomplished in one of four ways: by donation, passive investment, active investment, or waiting until a later time and doing nothing until $\boldsymbol{t+1.}$ The following are some names for them: $\boldsymbol{A_{i,t} = D, PI, AI, and\ WAIT.}$

When an investor decides to invest, he has to be aware of the present situation as well as the status of the market in the recent past. In addition, the investor needs to be aware of the prices, costs, times, and quantity restrictions. The game's current status may be represented by the total number of investments made before the choice was made. The following terms are used to refer to these actions: $\boldsymbol{qt^D, qt^{PI}, qt^{AI_t}, and\ S_t = p^D qt^D + p^{PI} qt^{PI} + p^{AI} qt^{AI}}$.

The development of linear predictions is made possible by these projections. These projections will help estimate probabilities, and those estimations will be assessed as follows:

$$P_{t,t+1}^{PI} = \max(0, \min(1, \frac{1}{Q^{PI}}(\frac{q_{t-1}^{PI} - q_{t-3}^{PI}}{3} + q_t{}^{PI}))) \tag{1}$$

$$P_{t,t+1}^{AI} = \max(0, \min(1, \frac{1}{Q^{AI}}(\frac{q_{t-1}^{AI} - q_{t-3}^{AI}}{3} + q_t{}^{AI}))) \tag{2}$$

$$P_{t,T}^{S} = \max(0, \min(1, \frac{1}{K}(\frac{S_{t-1} - S_{t-3}}{3}(T-t) + S_t))) \tag{3}$$

The odds of "selling out" for both passive and active investments are represented by equations (1) and (2) and may be found between times t and t + 1. On the other hand, the likelihood that the total amount of money collected will be more than the funding criterion is described by Equation 3 when time equals T. There will come a time when the investor will be required to make a choice. When making your choice, take into consideration the several options below:

1. The value of the donation:

$$V_{i,t}^{D} = P_{t,T}^{S}\,(\beta_i C^{PI} - p^{D}\delta^{T-1});\,[If, q_t^{PI} < Q^{PI}] \tag{4}$$

2. The Value of Passive Investment:

$$V_{i,t}^{PI} = P_{t,T}^{S}\,(\beta_i C^{PI} + \alpha_i c^{P}\delta^{T_{d-1}} - p^{PI}\delta^{T-t});\,[If, q_t^{AI} < Q^{AI}] \tag{5}$$

3. The Value of Active Investment:

$$V_{i,t}^{AI} = P_{t,T}^{S}\,(\gamma_i C^{AI} + \alpha_i c^{P}\delta^{T_{d-1}} - p^{AI}\delta^{T-t});\,[If,\ t < T] \tag{6}$$

4. The Value of Waiting:

$$V_{i,t}^{W} = max \begin{cases} 0, \\ \delta^{-1} P_{t,\ T}^{S}(\beta_i C^{PI} - p^{D}\delta^{T-t+1}) \\ \delta^{-1} P_{t,\ T}^{S}\left(1 - P_{t,t+1}^{PI}\right)(\beta_i C^{PI} + \alpha_i c^{P}\delta^{T_{d-t+1}} - p^{PI}\delta^{T-t+1}), \\ \delta^{-1} P_{t,\ T}^{S}\left(1 - P_{t,t+1}^{AI}\right)(\gamma_i C^{AI} + \alpha_i c^{P}\delta^{T_{d-t+1}} - p^{AI}\delta^{T-t+1}). \end{cases} \tag{7}$$

(If, $A_{i,\ t-1}$ = Wait, i.e., The player is currently engaged in gameplay.)

5. Action: $A_{i,t} = \max V_{i,T}^{D}, V_{i,T}^{PI}, V_{i,T}^{AI}, and\ V_{i,T}^{W}$.

   When t > T, the game is over.

CROWDFUNDING'S DRAWBACKS

Except for instances of crowdfunding, such as the creation of funds from home, relatives, or venture capitalists, founders do not make their ideas public. As a result, the general public cannot access information about innovations. However, if cash is obtained via methods such as crowdfunding, the ideas will be made public and will no longer be a secret. Although this is not a problem for philanthropic, charitable, or patronage initiatives, it is a severe challenge for inventive ideas for products or businesses that entrepreneurs start. Insufficient assistance from trained professionals: If angel investors or venture capitalists offer financial aid to a project, they also supply some other advantages, such as expert ideas to develop a successful firm in the industry in which the entrepreneurs are functioning or want to operate. These gifts are inaccessible to founders when provided by non-professional fund providers. Costs associated with Handling Investors Rise When money is obtained via crowdsourcing, the costs associated with investor management rise. As an illustration of this, Max Salzberg, who was successful in raising $200,000 on Kickstarter to develop an open-source alternative to Facebook, described his team's experience as "so consumed with things like answering emails and making T-shirts for their contributors that they had little time to build the software." Salzberg's story is illustrative because it shows how the team's time was spent answering emails and making T-shirts for contributors. Incompetent Founder: Sometimes, an idea looks to be extremely powerful and has the potential to attract many funders; nevertheless, on the other hand, the founder does not have the competence to effectively transform that concept into reality, according to Mollick (2014) has said. Mollick (2014) revealed that the production of more than fifty percent of the projects enrolled on Kickstarter is behind schedule using a sample size of 471. The danger posed by fraudulent ventures is the possibility of overly hopeful investors losing their money. Mollick (2014) concluded that fraudulent instances were very uncommon after studying around 48,000 projects. Even though there was evidence that 14 projects had ceased replying to investors and three projects were determined to be refunded, there is still a possibility that other schemes are fraudulent.

CONCLUSION

Venture capitalists and angel investors are a lifeline for entrepreneurs and project creators who cannot get money from their savings, friends, or family. However, their proposal will remain a dream if they cannot get funding. You do not have to have a lot of personal connections or the capacity to make a significant financial commitment to use crowdfunding. In order to support projects with specified goals, anyone may participate in a "crowdfunding" campaign by offering an open call for contributions online, either for free or in exchange for a prize or voting rights. It is easier for businesses to customize their crowdfunding campaigns than it is to use a standard platform. A wide range of remuneration may be offered, including the potential of active engagement in terms of time and skill, for the audience. Entrepreneurs and crowd funders choose crowdfunding models based on their needs. They range from pre-sale, equity-based, and lending-based models to donation-based, reward-based, pre-sale, and equity-based models. Crowdfunding has more benefits than downsides for crowd funders and businesses or creators. CF may become a pivotal supplement to seed finance for creative firms and projects that include patronage ideals. Traditional methods of funding entrepreneurial initiatives, such as venture capital, loan from a bank, angel finance, etc., are becoming more challenging. If, as stated, "entrepreneurial ventures that have difficulty raising capital from traditional sources like banks loaned from by angel capital, VC, state promotion and others because they appear too exotic and innovative to understand, too complex, too crazy to take or simply poorly presented," then the CF may excel among all the sources of seeding finance." In the future, researchers should investigate a wide range of issues, such as the success or failure aspects of crowdfunding projects and how these variables affect crowd funder success. Whether or not crowd funder has a say in the creation of a product or has voting rights? What is the degree to which platforms boost crowdfunding campaigns' chances of success or alleviate information asymmetry concerns, and what is the degree of risk reduction? What role does location play?

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