



UNIVERSITÀ DEGLI STUDI DI PADOVA
DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI
“M.FANNO”

IMPACT OF COVID-19 ON CROWDFUNDING PLATFORMS

Laureando:

Cecilia Mistruzzi

Relatore:

Prof. Fabio Manenti

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Abstract

The purpose of the work is analysing the drivers that have brought changes to the crowdfunding ecosystem as a result of COVID-19 outbreak. After an accurate description of how the platform works based on scientific researches, it will be proven that despite the pandemic and the changes that came with it, crowdfunding platforms have been able to adapt to the new standstill and to continue growing. The distancing and the isolation have only incremented the time that people spend on their smartphones and computers, hence on social networks which are essential for promoting crowdfunding campaigns. Therefore, it was witnessed an acceleration in the digitization process. The financial distress has motivated many people to find new sources of income, for instance by investing in an equity crowdfunding platform which is the type of platform that according to the data has grown the most and has collected the largest amount of money. Furthermore, the shown weakness of the healthcare system seems to have motivated people to donate and support related campaigns. Those are few of the drivers analysed in this thesis. Moreover, by looking at the case study on CrowdFundMe we demonstrate the positive reaction this platform has had during this crisis, in fact it has been focusing on guaranteeing honesty, trustworthiness and on promoting promising and COVID-related campaigns to help facing the pandemic.

Sommario

L'obiettivo della tesi consiste nell'analisi dei drivers che hanno portato cambiamenti nelle piattaforme di crowdfunding in seguito allo scoppio della pandemia. Dopo un'accurata descrizione relativa al funzionamento delle piattaforme, verrà dimostrata la capacità che tale strumento ha avuto nell'adattarsi e nel continuare a crescere nonostante i tragici effetti causati dal COVID-19. La distanza e l'isolamento hanno accelerato il processo di digitalizzazione. Le difficoltà economiche vissute da numerosi individui hanno spinto moltissimi a ricercare nuove fonti di guadagno tra le quali l'investimento, infatti ad esempio l'equity crowdfunding rappresenta il tipo di piattaforma che in questo periodo è cresciuta maggiormente e che ha raccolto il maggior numero di fondi. Per non parlare dello shock sperimentato dal sistema sanitario che però allo stesso tempo sembra aver spinto la popolazione a donare e supportare maggiormente campagne di crowdfunding collegate a tale tema. Questi sono alcuni dei drivers che verranno presi in considerazione. Infine, lo studio di caso sulla piattaforma CrowdFundMe mostrerà più concretamente la reazione e i cambiamenti adottati da tale piattaforma in seguito alla pandemia. Tale piattaforma ha infatti puntato a garantire onestà, fiducia e a promuovere progetti promettenti e collegati al COVID-19 in modo da contribuire attivamente alla tragica situazione.

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Chapter 1

Introduction

The outbreak of COVID-19 has brought up new challenges for people, businesses, and in general the real economy. Everyone suffered the consequences and some were able to profit and earn from this tragic event. In this thesis, the focus will be on crowdfunding platforms. This tool is defined as a website which allows entrepreneurs and firms to collect small amount of money provided by a large pool of investors, contributors and donors.

In chapter 2, I will analyze the most known crowdfunding business models: equity-based, reward-based, donation-based and lending-based. Then, there will be an analytical description of how they work, who are the parties involved and the externalities caused by their interactions. Since crowdfunding platform is a two-sided market, the parties involved are the backers and the fundraisers, where the platform works as the intermediary between the two. The effects deriving from the interactions between the two groups are within-group and cross-group externalities. Thereupon, there are also two other issues to be faced by them: asymmetric information and hidden action problem. Backers, fundraisers and the platforms all individuated some strategies to face these difficulties: price and non-price strategies. I will address all of them later on. At the end of the chapter, there will be a brief discussion about social networks.

In chapter 3, the analysis will shift to the current standstill. I will focus on describing the effects that COVID-19 is having on CFPs. In particular, I will

first point out the changes that each parties had to face to then turn to the strategies that can be adopted and that were utilized to overcome the crisis. The study will then take a more concrete direction, in fact I collected some data which describes the results obtained by the most performing Italian platforms for each type of business model previously presented.

In chapter 4, the case study of CrowdFundMe which is an Italian equity-based crowdfunding platform, will prove and clearly show the consequences and the strategies utilized to face the pandemic.

I have based my work on scientific papers, on data collected by the platforms themselves and on technical reports. Furthermore, I have focused both on qualitative and quantitative data to give a better understanding and a more thorough analysis. The main purpose of this work is showing the impact that COVID-19 is having on this tool, by analysing the changes and the challenges which were brought up. The usage of this tool has been constantly spreading during these last few years. Moreover, despite the pandemic, it was able to maintain this trend proving its strength and usefulness. It has also demonstrated how it helps to access funding more easily and that it represents a valid alternative to traditional instruments such as banks, venture capitalists to name a few.

Chapter 2

What is Crowdfunding?

Crowdfunding platforms are defined by EU commission as an innovative way to raise money in order to finance businesses and projects. This tool allows to collect large sums of funding from a wide pool of interested people through online platforms. According to Vitale (2013) [15], crowdfunding is closely related to micro lending, which allows individuals with no access to conventional financing from credit institutions to receive funds. It differs from traditional funding for the number of backers involved (EU Commission) as well as the type of funder [11]. In fact, traditional funding involves a small group of sophisticated investors, while crowdfunding a large audience of individuals (private persons or economic actors [15]) who each provides small amounts of money. Moreover, often in crowdfunding there is no standard financial intermediary [53], however, the platform itself can be referred to as an intermediary [15]. It has become a valid alternative, mainly for startups and SMEs¹ seeking funding, to satisfy their liquidity needs. In CFPs² they are included projects of all kinds: from cultural, humanitarian, social and political projects to environmental, technical ones just to name a few [66].

Moreover, crowdfunding is a niche phenomenon that has been growing in the past few years worldwide [12]. According to Starteed the total growth in Italy in 2020 was 75% and the average growth in the past 5 years was 66%. This new innovative tool is changing the capital market space [9] or

¹Small and Medium Enterprises

²Crowdfunding platforms

| MODEL | CONTRIBUTION | RETURN | MOTIVATION (backers) |
|----------------|---------------------------|--------------------------|-------------------------------|
| Equity-based | investment | financial return | financial return |
| Lending-based | loan | interests on the loan | financial return |
| Reward-based | donation/pre- purchase | rewards | social and material return |
| Donation-based | donation | intangible ben- efits | social return |

Table 2.1: Crowdfunding Business Model [57]

better it is emerging in response of an increasing need of new sources of finance which is essential in a growing economy. Furthermore, it seems an interesting solution to the many current financial constraints of the capital markets.

2.1 Crowdfunding business models

There are three categories of CFPs: financial, non-financial and no-reward platforms [40]). The first, which can also be defined as investment-based CFP, are: equity-based and lending-based CFPs [12]. The second is reward-based CFP and the third is donation-based CFP. The last two models do not involve any financial reward or compensation for the funders. On the contrary, for investment-based CFPs a remuneration is expected by the funders, this gain will depend upon the performances of the campaigns [40]. The backers are driven by three types of motivation depending on the crowdfunding platform model: social return, material return and financial return. Shifting to the fundraisers' side, the main motivations are collecting capital to fund new businesses [9] and receiving feedback on new ideas and products before they enter into the market. The platform is therefore able to create a direct link between the customers and the project owners [30].

2.1.1 Financial CFPs

As mentioned before, this type of platform involves an economical gain from the process. The first model is equity crowdfunding, it still occupies a small portion but it is growing at speed. It can be defined as a platform where privately held businesses offer securities to the general public, thus businesses not yet floated on the stock exchange can offer proportions of their equity where the backers can purchase parts of the equity stake [57]. Therefore, this is a real investment and the actual profit will depend on the performances of the funded businesses (financial return, table 2.1). Moreover, regulators are very attracted and interested in monitoring equity crowdfunding [63]. It may appear similar to the practice of acquiring shares on the stock market. However, it presents many differences: first of all, while on the stock market private companies must follow strict regulations, the latter do not apply in the crowdfunding scenario. Further, companies seeking funding through crowdfunding platforms are usually much smaller and less developed. In table 2.1, some factors related to this type of crowdfunding are briefly presented. Starting from the incentives of the funders, it has been mentioned that what drives the backers are mainly financial motivations such as having access to investment opportunities and earning a profit [57]. It is primarily utilised by SMEs and start-ups which have often difficulties in both accessing subsidized funds and being granted with government contributions [3].

The other model is lending crowdfunding, in this case a large group of people will lend money to a business and they will expect to have the money back with interests. It diverges from borrowing from a bank for the fact that it is less complicated and it involves much less standards. What drives the investors towards this process is the expectation of a return, hence, a financial motive (table 2.1). In this type of model the role of the platform might somehow differ from case to case. In fact, it could be an actual intermediary and deal with the entire process until the repayment, or it could just act as the match-maker and let the rest of the process be dealt by the two parties [30].

2.1.2 Non-financial CFPs

A non-financial type is reward-based crowdfunding which involves campaigns whose aim is to collect funds in order to promote a new idea or item. The type of contribution is usually a donation however, it can also be defined as a pre-purchase of a new product (table 2.1). In return the backers expect a non-financial reward which usually has a symbolic value [30]. Other than the early access to a new product, the backers might be driven by the desire of engaging in social activities (community participation), or the desire of supporting an interesting and innovative idea [4]. Therefore, it is clear that the funders are moved by both material and social returns (table 2.1).

2.1.3 No-rewards CFPs

The most known example of no-rewards crowdfunding is the donation-based. This model is typically used by NGOs to promote specific projects in order to collect funds. It differs from traditional funding because the donations are ear-marked for a specific campaign. The motivations of the backers are intrinsic, mostly connected to social causes [30]. Hence this type of motivation is called social return since there is no financial return nor a reward expected by the backers. Moreover, the funders receive so called intangible benefits from donating such as personal satisfaction and feeling helpful towards the community (table 2.1).

2.2 How do CFPs function?

In this section the wish is to dive deep into the economic relationship among the three parties involved in CFPs. Moreover, the focus will be on the cross-group and within-group externalities, and how these effects influence the price structure and the efficiency of the platform. The focus will then shift to the main strategies engaged to deal with the external effects and other two issues: asymmetric info and hidden action problem. One last paragraph will mention the importance of social networks in the crowdfunding ecosystem.

Crowdfunding is a two-sided market characterized by a subsidy-side and a money-side. The former is the group of funders which contributes to the money-side. The latter represents the fundraisers, which are the one paying the fee to the platform (the intermediary) [15]. It distinguishes itself from platforms such as dating apps, since the latter are one-to-one matching while CFPs are one-to-many matching. Therefore, this tool creates new markets [12]. It can be seen as a win-win game since all committed stakeholders enjoy several benefits from their involvement in the process. Starting from the intermediary which profits from the fees charged for the service [12]. As for the investors, they benefit in different ways since there are several types of crowdfunding models. The backers in a donation-based might strengthen their sense of belonging to a certain community or they might enjoy the feeling of helping the society/community in need. The investor in a reward-based enjoys the involvement in the project, e.g. being able to be the first to use a new item. The funder of an equity-based can profit if the project is successful by receiving a return from the investment. Those are just a few examples [67]. The fundraiser benefits in alternative ways as well, firstly by getting the funding to implement a project, to produce a new item or finance a business, secondly by receiving a feedback on goods before they are introduced in the market [39].

The platform can opt for two opposite models: AON or KIA. Those models can apply to all 4 types of CFPs. In the “Keep-It-All” (KIA) the entrepreneurs are allowed to keep the entire pledged amount, usually by paying a higher fee, even though the stated capital raising goal is not reached. On the contrary, in the “All-Of-Nothing” (AON), unless the established amount is met, the fundraisers do not receive the amount collected and the latter is returned to the backers [29].

2.2.1 External effects

As we previously stated, crowdfunding is a digital platform which operates as a two-sided market, thus it brings together two different groups of participants and regulates the relationship between them [46]. These interac-

tions create network externalities (external effects) which can be defined as the marginal effect that an additional user has on the other users both on the other side of the market (cross-side network effects) and the same side (within-group network effects) [8]. Network externalities can be both negative and positive [73].

Cross-group network externalities

Firstly, cross-group externalities (inter-group externalities or indirect network effects) emerge whenever one side of the market benefits from the participation of the other side participants [45]. The impact of funders participation on fundraiser is positive with no ambiguity, since a large crowd of funders increases the chance to raise more money and hence, to increment the probability of the project success. Moreover, CFPs are often used to receive a feedback on new products before are launched in the market, therefore, a wide pool of potential funders can only mean more accurate results from the market analysis [13].

On the contrary, fundraisers participation on CFPs can have both positive and negative effects on funders. The more projects available, higher will be the chance to find the project that better fits the tastes of the backers. However, the higher the number of projects presented by the fundraisers the higher the need of coordination between funders in order to finance and actually reach the required threshold which will eventually bring the campaign to success. CFPs can mitigate this problem by guiding the funders towards the projects which are closer to reaching the threshold. On the contrary, the lower the number of projects presented the higher the chance to not satisfy the tastes of the funders but the easier the coordination among them and the chances of reaching the goal [12]. Therefore, the positivity or negativity of such externalities depends upon the balance between projects variety and coordination among funders (figure 2.1).

Within-group network externalities

Within-group externalities can also be defined as intra-group externalities or competition effects, as long as participants of the same group compete with each other [14]. Therefore, it is essential to analyze the peers behavior since it can positively or negatively influence the group. Concerning the funders, the network effects are mainly positive, in fact a higher range of participants increases the chances of reaching the threshold-pledge in case of both the AON or the KIA model apply. Though, some other effects may be induced by the dynamic behavior among funders e.g. free-riding problem.

Within the group of fundraisers, the network externalities are mainly negative. In fact, although a larger group of fellow fundraisers may better the image of the platform and hence, attract a bigger supply of consultancy services, more fundraisers mean more campaigns and thus, more competition (figure 2.1). The present increases the chances of not meeting the financial goal to implement the project [13].

These externalities affect the pricing structure and the efficiency of the interactions between the two parties. The analysis will be on two types of strategies: price and non-price strategies [13].

2.2.2 Price strategies

There are several price strategies which can be adopted by the platforms. For instance, at the moment most CFPs impose a tax on the money-side in case the campaign is successful. Therefore, the platform charges a transaction fee to the fundraisers as a percent basis which apply whenever the threshold is reached (AON model) or more in general the project has had a positive outcome. Unsuccessful campaigns usually do not get taxed. No explicit fees are charged to the subsidy-side. Sometimes a platform can introduce a subscription fee for both fundraisers and funders, however, this rarely happens at the early-stage of the platform life [13], because it could disincentive both from participating. In conclusion, CFPs benefit from three sources of revenues: firstly, as we previously explained, platforms earn interests on the funds collected, secondly, they might offer additional services to both the

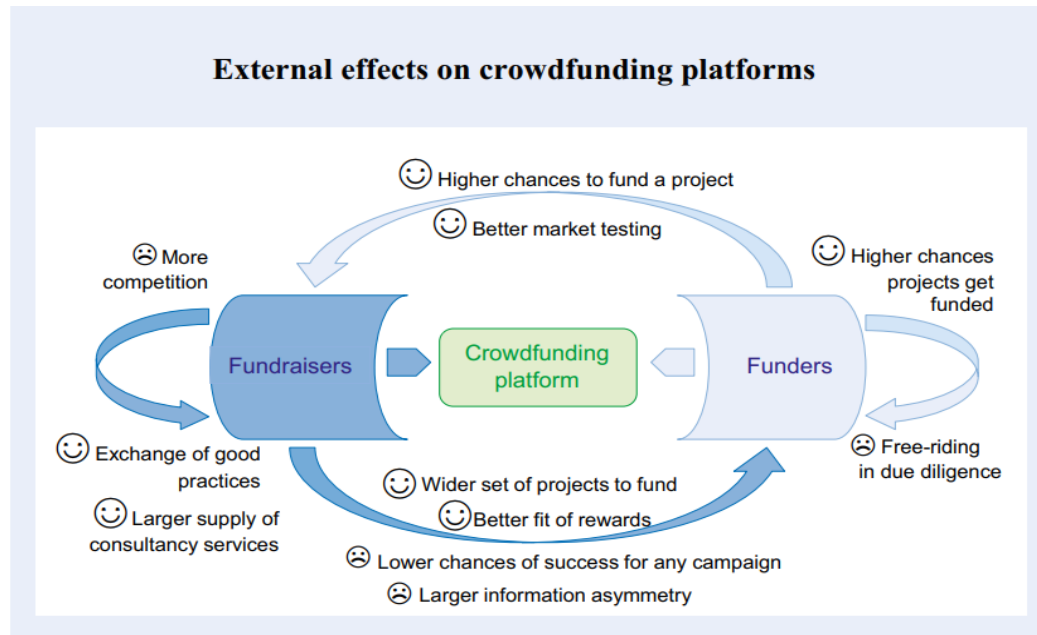


Figure 2.1: External Network effects on CFPs [13]

backers and the fundraisers such as disclosure of information and handling payments. Thirdly, even though at the moment is not frequent since platforms are new, subscription fees for both sides can offer another source of income for CFPs [12].

2.2.3 Non-price strategies

Non-price strategies aim to manage external effects, to address the asymmetric information problem and the hidden action issue. The first and foremost strategy is the choice between the two mechanisms AON and KIA. As we explained before, the "All-Or-Nothing" model better reassures the funders, since it forces the fundraisers to set reachable and more realistic targets and thus it guarantees more protection for the backers interests. Therefore, by choosing AON the platform become indirectly more attractive for the fundraisers. Moreover, this mechanism makes some participants crucial thus, their contribution will be pivotal in order to reach the target. Fundraisers are allowed to charge different prices to pivotal funders. That said, fundrais-

ers will usually choose a more flexible method such as KIA, even though the platform often charges a higher fee in this situation. If by choosing a model the fundraisers get discouraged, the same would happen to the funders hence, the platform allows the fundraisers to pick the method they prefer. Consequently, the decision whether to choose one or the other should be driven by the importance of the funding level in order for the project to be successful [13].

Other strategies can be used by CFPs to minimize the problem of asymmetric information which is a well-known issue in two-sided markets [75] that can lead to market failures such as adverse selection [4]. In fact, fundraisers will most of the time have way more information related to the quality of the projects than any other participants which could result in withholding information and overstating quality [4]. That said, outright frauds can easily occur. Backers are only aware of the presence of both good and bad quality campaigns [6]. First of all, in this context the investment decisions are made before having the chance to finding out the actual value of the project. Furthermore, it is more complex to learn from the predecessors since the results of the transactions are not immediately visible like on platforms such as eBay. Therefore, they ought to find some other strategies to mitigate the problem.

In table 2.2 for each type of participants are listed some possible solutions to ensure quality on the platform, thereby mitigating risks for backers [75]. For instance, the platform can promote a direct screening which consists in analyzing and verifying some specific characteristics of the fundraisers and of the campaigns. Imposing a fee per campaign may be utilized as a screening device as well [12]. Moreover, some CFPs can involve sophisticated investors in order to reassure the backers [13]. Sometimes, different type of information can be given to the backers, other than the credit history of a fundraiser e.g. textual description of his reasons and intentions, his picture, the maximum interest rate he is willing to accept. Those are defined as “soft info” [41] since they are mainly used to build trust between the two parties. The so called “hard info” or “economic status” are considered the most relevant criteria used by the backers to evaluate a campaign. Another mechanism which

could be implemented is the reputation system. CFPs can build, by using a benchmark, a system to analyze and report the average performances of a fundraiser, thereby creating a link between expected performances and observables [50]. Furthermore, a platform could also get certifications to prove the quality of the platform itself and also to introduce a system of specific policy rules for the platform [75]. Finally, CFPs can use a recommender system [47] to inform new potential funders about the decisions that have been previously made by other backers or it may utilize past decisions from previous campaigns to give some personalized recommendations [13].

Yet, funders take decisions according to the information they have. Some are available to anybody (public info), others only to a subset of the public (private). According to the signaling theory, the fundraisers may signal some specific info they want the public to know and vice versa ([19] signaling theory). However, for this theory to be held eligible, for funders or CFPs must be easy to verify the statements made by the fundraisers. Moreover, fundraisers might want to work on their trustworthiness by utilizing a reputation system since it has been demonstrated the importance of trust in crowdfunding [12].

Finally, also the funders have some power over asymmetric information, in fact they can base their decisions on their past experiences if they have assembled a portfolio of investment (portfolio effects), or by learning from others. Further, syndicates have an important role in reducing market failures due to information asymmetry. They shift the focal investment crowd activities from start-ups to lead investors. Yet, they provide incentives for the latter to monitor progress, to exploit their reputation and to conduct due diligence [5]. These mechanisms can help mitigate the asymmetric information issue but they can implicate some other problems such as herding. In fact it has been verified that investors care more about what the other investors do than who does it (herding behavior [60]). This can cause inefficiency as to which project gets funded [12].

Another problem which arises after the funds are collected is the hidden action problems which determines market failures as well (moral hazard e.g.)[4]. Funders are unlikely able to control the way the money are utilized

| PARTICIPANT | PROBLEM | INSTRUMENTS TO MITIGATE THE ISSUE |
|-------------|------------------------|--|
| Platform | Asymmetric information | Screening, fees, sophisticated investors, reputation system, platform policy rules, certifications, complementary source of info, recommender system |
| | Hidden action problem | Insurance, payments services, monitoring system, reputation system, info disclosure |
| Fundraisers | Asymmetric information | Signaling, reputation system, trust, social media, certifications. |
| Backers | Asymmetric information | learning from others, syndicates, portfolio effects. |

Table 2.2: Strategies to mitigate the issues [75][12][9]

once the campaign is over. Therefore, in order to reduce the risk of frauds, CFPs must promote strategies to guarantee more certainties to the funders afterwards, first of all by implementing a monitoring system. Second of all, it might be wise for the platform to provide supplementing services such as managing the transactions in order to avoid the usage of funds before the success of the campaign has been declared. As mentioned before, a reputation system to track previous performances of fundraisers can be useful when the platform has been previously used by the campaigns promoters. Furthermore, Insurances can be appropriate for both funders and the platform itself to reduce risks such as market failures [13]. Finally, CFPs have often more information compared to funders, however they might decide to not disclose all the available info. This happens because CFPs want accuracy reputation and a reputation of being lenient in order to attract both funders and fundraisers. Therefore, in order to balance these opposites incentives CFPs might avoid sharing all available information [12].

2.2.4 The role of Social Networks

Finally, it is presented a brief analysis of social networks role in CFPs. Reasonably, the highest quality campaign should get funded, however, this facet is not perfectly observable, hence funders rely on quality signals. In this respect, social networks play a relevant role [13]. In fact, some evidence has shown that social networks can leverage crowdfunding performances [51]. Moreover, some studies have proven the positive correlation between the number of followers, the project-sharing cascades and crowdfunding performances. Yet, the fundraisers digital reputation is relevant and can have a positive impact on CFPs. This tool can be used by all three parties. Funders utilize it to receive more information, fundraisers might use it to improve their image and promote their campaigns, CFPs may use it to update the funders beliefs in order to let the recommender system make personalized suggestions for projects that might interest the backers [12]. Social Networks act as a free promotion resource for crowdfunding platforms with the aim of reaching a global audience. They are expected to drive the crowdfunding growth even further in the future. Moreover, Startup.com believes 12% of the Facebook share, 53% of email shares and 3% of Twitter shares convert to donation [77].

Chapter 3

Consequences of the pandemic

This chapter will be focused on highlighting the impact COVID-19 is having on crowdfunding platforms. This exogenous shock has increased environmental and economic uncertainties which resulted in new challenges for entrepreneurs and the real economy. Since the outbreak of the pandemic, crowdfunding has shown strength and moreover an unexpected boom has been witnessed. Yet, this boom has come with a price, in fact the crowdfunding landscape has been heavily altered. Starting from the type of companies soliciting funding, the type of investor and the increase of atypical motivations that drive the backers [17]. So far, the changes brought by the pandemic have been evaluated however, some strategies promoted to face the negative consequences will be mentioned. The analysis will describe separately the three parties involved in a crowdfunding platform: the crowd, the fundraisers and the platform itself. Furthermore, the analysis will be supported by specific data for each type of crowdfunding platform (Italian platforms).

The interesting question is what are the drivers of crowdfunding platforms changes carried by the pandemic? Starting from the effects of isolation and social distancing on individuals, on one hand, we can expect an increase in social disconnection [42] on the other hand, some suggests the ability of this situation in creating new online communities [2]. This situation has accelerated digitization and it has increased the use of social networks which

are relevant in promoting crowdfunding campaigns. Moreover, by witnessing all this suffering we could expect a rise in solidarity thus, a growing interest in helping people in need. Moreover, since the suffering involved us closely, in fact mostly each one of us has experienced a loss of a friend or a family member this could represent an incentive to donate more money to COVID-19 related campaigns. Not to mention, the several financial difficulties faced by many workers who were forced to find new sources of income. Some might have started to invest [70], others to create new small online businesses as a result of COVID-19 restrictions which forced people inside their homes, and in front of their technological tools in order to remain connected to the world. In both cases, crowdfunding platforms could benefit: more investors and new start-ups seeking funds to promote. On the other hand, financial distress could suggest an increase in selfishness [65] which could strongly damage crowdfunding platforms by reducing the amount of funding raised, not to mention the possible increase in frauds carried out by fundraisers. The pandemic has also shown the fragility of the healthcare system this could drive people attention towards this sector and thus, crowdfunding platform could exploit this by promoting specific types of projects. We now dive into a deeper analysis of such drivers in order to have a better understanding of these changes, we do not expect to be able to explain all the collected data related to the platforms since, there are still many factors, correlations and consequences to be discovered and studied connected to the current standstill.

3.1 The crowd

The pandemic has affected the entire population, the latter is preoccupied by the impact of COVID-19 on the economy, the health care system and its well-being. The people are striving to adapt to a new normality. Firstly, a change in their priorities has been witnessed, they now center on basic needs, cleaning devices and products while the sales of non-essential categories dropped. Moreover, the buy “local trend” is accelerating, not to mention the boost in digital commerce. Another concerning factor is the growing interest to-

wards sustainable options. Thereupon, people are embracing technology with greater reason, in particular due to the distancing and as a result of isolation. Some believe this situation to be able to build new online communities, albeit the distancing might suggest otherwise [2]. Considering this, we will see later on that fundraisers and CFPs have been focusing on promoting new types of project as a response.

Secondly, the outbreak of the pandemic has negatively influenced people confidence, thus, trust is becoming a crucial matter. Most of all, rebuilding trust quickly and credibly should be what organizations and businesses seek to achieve [1]. This represents a huge problem seeing that it has been proven the value of confidence in view of successful performances in the crowdfunding ecosystem [7]. In order to achieve that, some crowdfunding platforms reinforced their regulations and the project selection system [44]. Others focused on social networks to attract and reassure the public.

Thirdly, backers motivations need to be discussed. In general, as was briefly examined in chapter 2 there are different types of motivations. However, we will analyze this more thoroughly right away. The first division is between social¹ and individual² drives. The second is between two extended categories: intrinsic³ and extrinsic⁴ motivation. The pandemic has slightly modified them, since it has brought up several issues. For instance, during this time some individuals have felt a growing sense of belonging towards the local communities which resulted in an increase in altruism (e.g. individual and intrinsic motivation), an extrinsic motivation arisen is the interest in investing in campaigns related to COVID-19 in order to overcome the current and tragic standstill (this can be seen as both an individual and a social motivation), as for intrinsic social motivation it has been noticed a spreading feeling of mistrust towards fundraisers [58].

In figure 3.1, we present the categories in which the backers invested/donated

¹Any motive deriving from the interaction with others [18]

²Motivations coming from within the individuals [18]

³What drives the person to do something is the interest towards that specific thing [62]

⁴In this case the motivation come from the expectation of reaching a separable outcome [62]

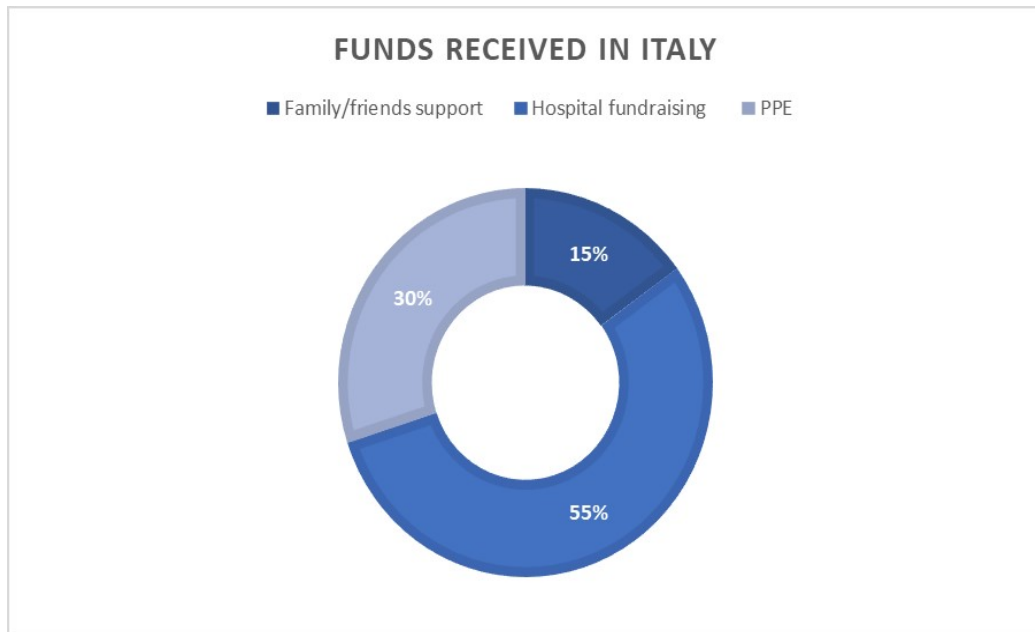


Figure 3.1: Types of campaign where people invested the most in Italy [35]

the most throughout the Pandemic. 30% of the funds went to PPE⁵ campaigns, 15% to support family and friends and 55% to hospital fundraising [35]. This data are self-explanatory considering the analysis presented above.

According to a study run by Zelle⁶, the pandemic has principally hardly hit the finances of Millennials⁷ nevertheless, they are the generation that is donating the most as we can see from figure 3.2. The boomers⁸ are the one who donated/invested less compared to the other generations, one explanation could be related to the difficulties in using these new technological tools [49].

⁵Personal protective equipments

⁶Payment service used to transfer money

⁷Millennials are those born between 1981 and 1996 who are now between 25 and 40 years old. This generation has grown up during globalisation, digital revolution and the 2008 Crisis (period of rapid change), these events have surely affected their preferences, attitudes and expectations compared to the previous generation [38]

⁸Boomers are the one between 57 and 74 years old [49]

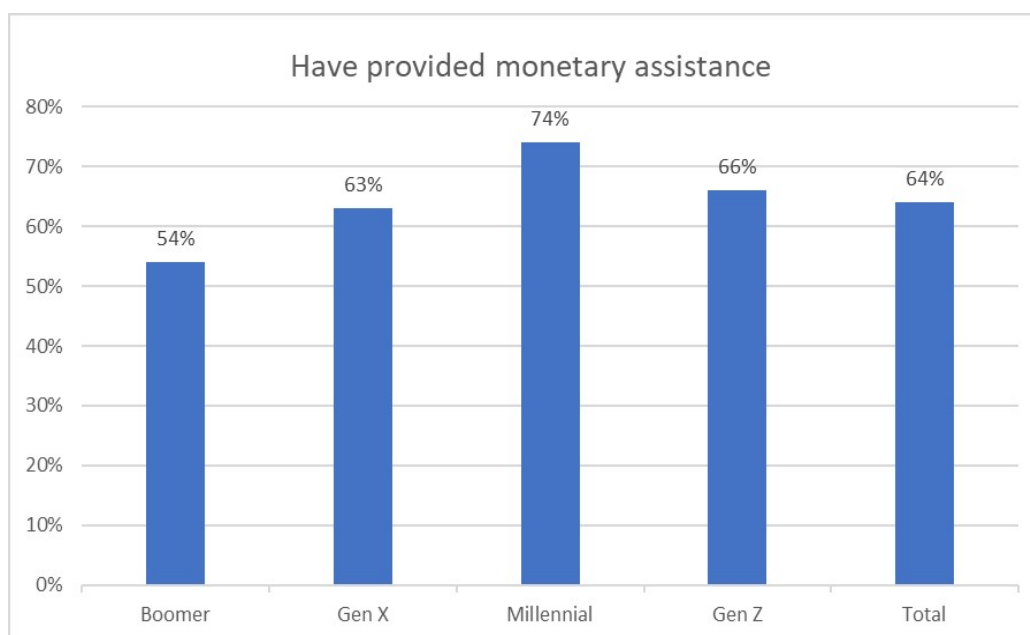


Figure 3.2: Types of investors [49]

3.2 The entrepreneurs/fundraisers

That said, the focus will shift to the consequences for entrepreneurs/fundraisers. Different aspects have to be considered. As we mentioned above, one of the most crucial change determined by the crisis is the rise of new types of companies. On the contrary, existing companies are facing many challenges and often entrepreneurs are forced to decide whether to try to save their businesses or not, thus if it is worth it to raise funding to help the business. This process involves three phases: business resumption, crisis impact analysis and future evaluation and modification. Firstly, as expected many entrepreneurs have been using crowdfunding to help financing and financially relieving their companies [36]. This is a big difference compared to pre-COVID situation in which crowdfunding was mainly utilized to collect early-stage funding for new start-ups. Secondly, lately crowdfunding has been used as an exit strategy. These entrepreneurs make use of this tool to receive assistance in finalizing the acquisitions of their own companies by other organizations. The second phase consists in observing the impact of the pandemic. First of all,

it has been proven the rise of frauds when using crowdfunding platforms [74] [49]. Yet, a need of digitalization has arisen and consequently a new pool of investors (millennials) has started to play an interesting role in the crowdfunding ecosystem. The third and final phase involves future evaluation and forecast about the lasting effects on crowdfunding platforms due to COVID-19. On that respect, Royse and Slutu⁹ (2021) have provided some insights; they have forecast an increase in competition among crowdfunding projects in addition to the rise of political values exposition throughout the campaigns.

We dwell on start-ups which have been largely influenced by the pandemic. They have not received a lot of attention compared to existing companies since for governments it was more important to save or better support what needed assistance than maintaining an open minded and attention towards the future [48]. Despite that, many crowdfunding platforms have seen the potential of new start-ups (mainly related to COVID-19) thus, they promoted them despite it all (e.g. CrowdFundMe).

Social entrepreneurship needs to be considered as well. It differs from other forms of entrepreneurship for two leading reasons: the main goal is to raise awareness on social causes and the profit is not necessarily pursued [72]. In order to mitigate the negative effects due to the pandemic, social enterprises can assume a pivotal role if they are able to attract funds [36]. This unprecedented situation has made it harder for this type of companies to collect funding, first of all due to the high level of competition among them, which increased following the current crisis, second of all because of the absence of campaign support [59]. Some strategies to overcome the crisis have been suggested (see figure 3.3) [36]. SE¹⁰ must be prepared to build resilience through strategies such as breaking-through and reaching-out, hence the aim is shaping a strong ability in bouncing back and forward within the first waves of the pandemic. The former means immediately identifying the business needs, the latter refers to the ability of individuating new opportunities. Moreover some [37] suggest the importance of constructing collective

⁹[61]

¹⁰Social Enterprises

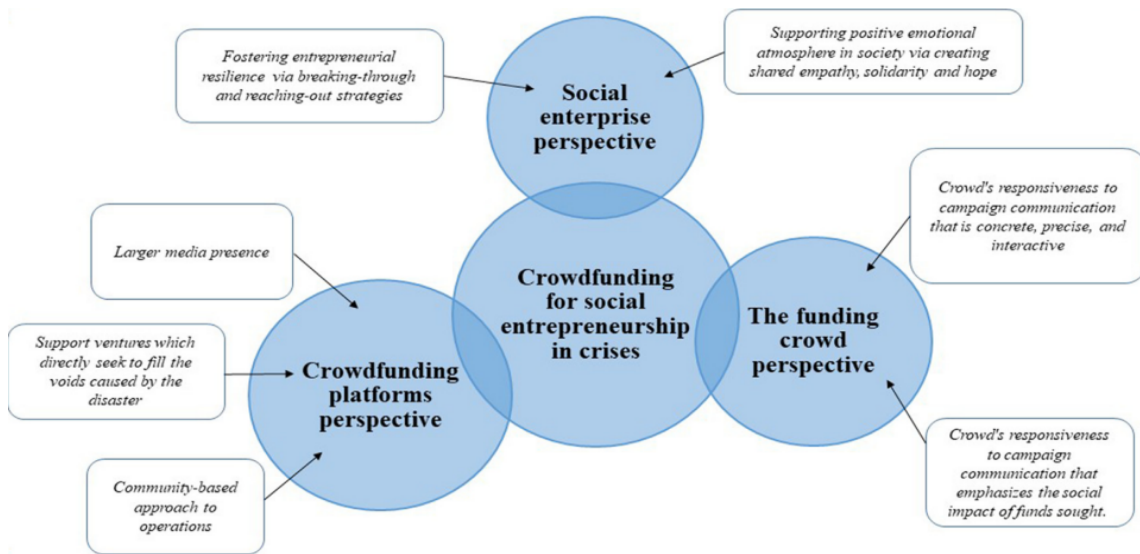


Figure 3.3: Strategies to incentive funding in SE campaigns [36]

hope and creating empathy and solidarity in order to build a supporting and emotional atmosphere, which would eventually stimulate people to invest and donate. In order to boost campaign success rates, they are much appreciated by the crowd concreteness, preciseness and interactivity. Furthermore, it has been noticed [54] that by focusing on describing solely the economic or the social benefits, donors are more willing to fund and more attracted by the campaign. Finally, crowdfunding platforms need to support those ventures who might be competent at filling the void determined by the crisis.

In conclusion, we present some percentages related to campaign types promoted during the pandemic. 34% of the campaigns promoted were related to family and friends support. Despite some global charity projects (figure 3.4) were launched they were not successful in Italy, in fact as we said before the “local trend”, which suggests a growing interest towards the local community, has been accelerating [35].

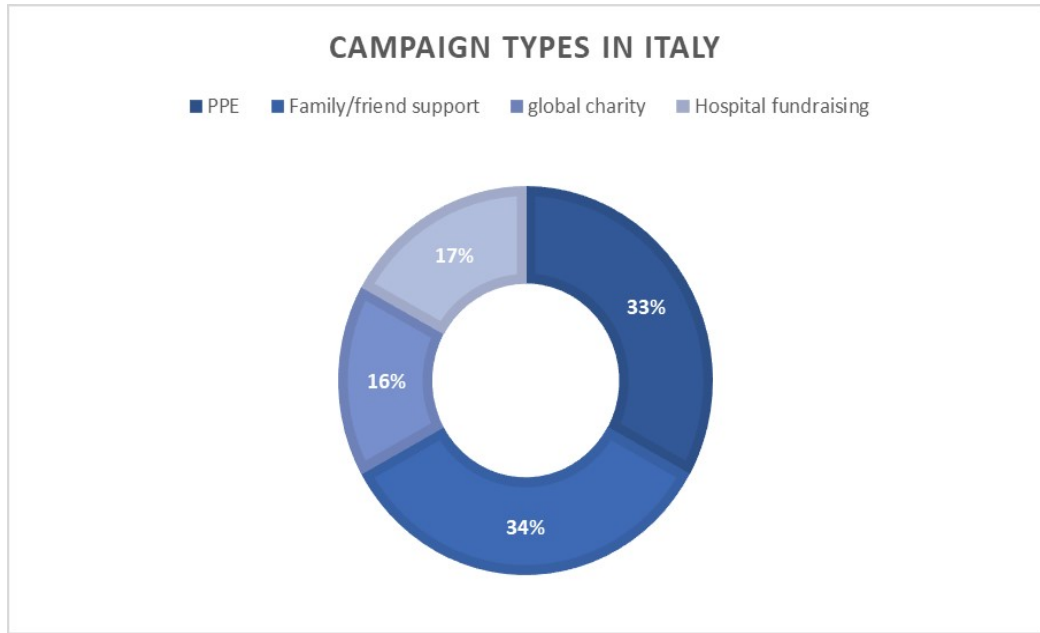


Figure 3.4: Types of campaign promoted the most in Italy [35]

3.3 The platform

In general, the platforms have seen a rise in the number of frauds during the pandemic, one of the reasons might be due to the exploitation of the situation generated by COVID-19, hence taking advantage of people generosity. The literature has identified two solutions to this problem: Maximum-Aftermarket (MA) and Platform Escrow with Post-campaign mandatory verification (PE-V) [55]. The first consists in stopping the campaign once the established threshold is reached where any unmet demands are served in the aftermarket [10]. The second aims to use the exceed funds as insurance for backers in case there are any issues with the campaign later on [55]. Moreover, considering the situation, some platforms have decided to reduce or completely eliminating some commissions in order to stimulate the usage of the platform e.g. Soisy [71].

| PARTICIPANT | CONSEQUENCES OF COVID-19 | RESPONSES TO COVID-19 |
|--------------|--|---|
| The crowd | New atypical motivations, new priorities, new needs and preferences, lack of confidence, more uncertainties | More projects related to the pandemic were presented, diversify more the portfolio [25]. |
| Fundraisers | The focus is on saving existing companies rather than promoting new start-ups, change in the types of campaigns promoted and the type of investor, SE have more difficulties in collecting funding | More attention towards the new needs and the new priorities of the crowd, focus on interesting start-ups especially healthcare campaigns and sustainable projects, improving the quality of campaigns presentations and increasing the media presence |
| The platform | More frauds, less money and sometimes less incentives to invest or donate | Check more thoroughly the campaigns, reduce commission fees to incentive investors (es. Solily) |

Table 3.1: Summary of the COVID-19 impact on CFPs. Based on [36] [7] [10] [18] [35] [71] [55] [58] [62]

3.4 General responses to COVID-19

The table 3.1 summarizes the consequences generated by the pandemic and the related responses/strategies adopted to overcome COVID-19.

3.5 Equity-based CFPs

In order to support the previous considerations, some data related to each type of crowdfunding platform in Italy will be presented and discussed. First of all, according to the annual report by Starteed, Italian equity platforms collected € 122.468.132 and the total annual growth is equal to 95%. This

has proven the stability and the strength of this tool which has registered an exponential growth [52]. The real estate sector has allowed to collect a great amount of money in short time [69]. Moreover, as we previously mentioned, COVID-19 has brought up many social and health considerations for firms investors relatively to the strategies and government agendas. Yet, some believe that the pandemic has brought changes not only related to the way of life and thinking but also to the financial behavior of individuals [52]. Thus, at the moment the most successful campaigns were e.g. Posh Wash which has recently collected € 580.000 from 79 investors for hi-tech and ecological laundry machine, they are also launching a sanitizing machine which aim is to reduce the purchase of face masks, and the environmental impact [25]. This type of campaigns suggests the growing interest in sustainable projects and in the well-being at a local level hence, the desire of fighting the pandemic or better investing in start-ups and projects related to this critical situation. Further, this inclination towards this type of investments seems to be driven by both the financial return and other social motivations such as the environmental performances and the well-being of society [52]. According to the CEO of Walliance, which is one of the most successful equity crowdfunding platforms in Italy, this instrument is easier to understand than many other financial tools and since the European Union intends to pass a new law to expand overseas, the 2021 will be focused on platforms internationalization¹¹ [69]. In conclusion, in figure 3.5 the 5 most successful equity-based Italian platforms are presented. It is evident that the amount collected solely in 2020 is almost half of the total raised in the previous 5 years. This strengthens what we stated above.

3.6 Lending-based CFPs

Lending-based CFPs in Italy have registered a growth of 75% from 2019, the previous year was 49%. Therefore, it seems that this type of crowdfunding has not suffered the consequences of the pandemic. Thereupon, it contin-

¹¹Italians platforms will be able to compete with multinational portals [3]

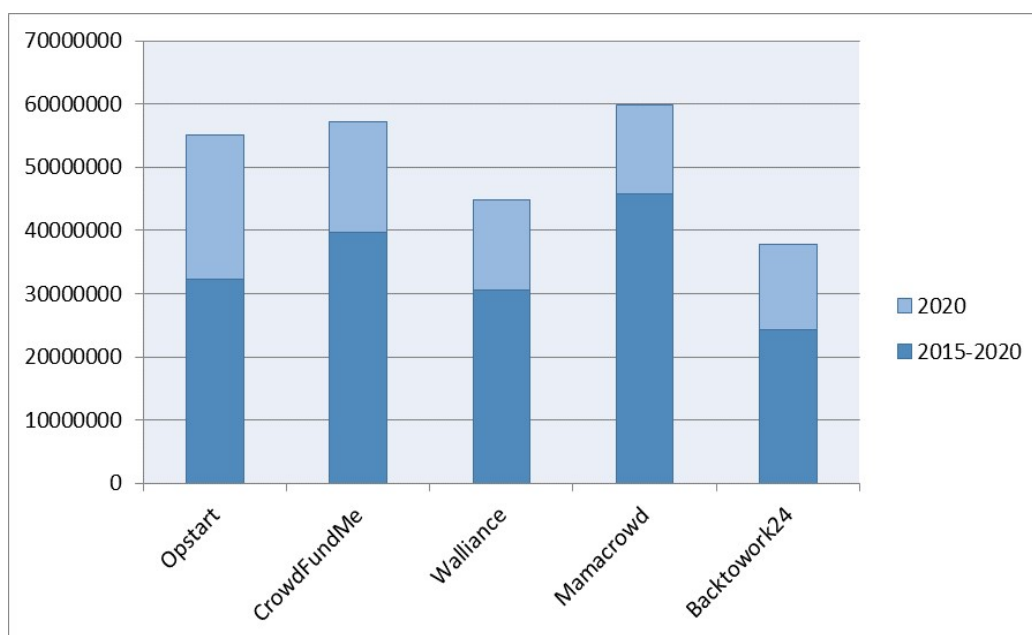


Figure 3.5: The 5 best performing equity-based CFPs in Italy

ues to grow and financially support SMEs and individuals despite the crisis generated by COVID-19. In 2020, Italian lending-based platforms have collected a total of € 185.553.216 [69]. The best performing Italian platform is Borsa del Credito (figure 3.6), the Chief Operating Officer Antonio Lafiosca believes that COVID-19 is damaging SMEs to the point where a social emergency is upon us. However, he also thinks that the government interventions and the European help will eventually be crucial. In the mean time, digital lending can play an important role in providing emergency funding to help businesses in need covering their lack of liquidity. Nevertheless, the importance of this actions is redirecting private savings towards the real economy in order to create a chain reaction. Another interesting Italian platform is October, the CEO Sergio Zocchi supports the importance of diversifying the approaches of accessing resources. Finally, we mention Soisy which allows e-commerce and other companies to collect payments immediately, while allowing customers to pay in installments after the purchase. Private investors

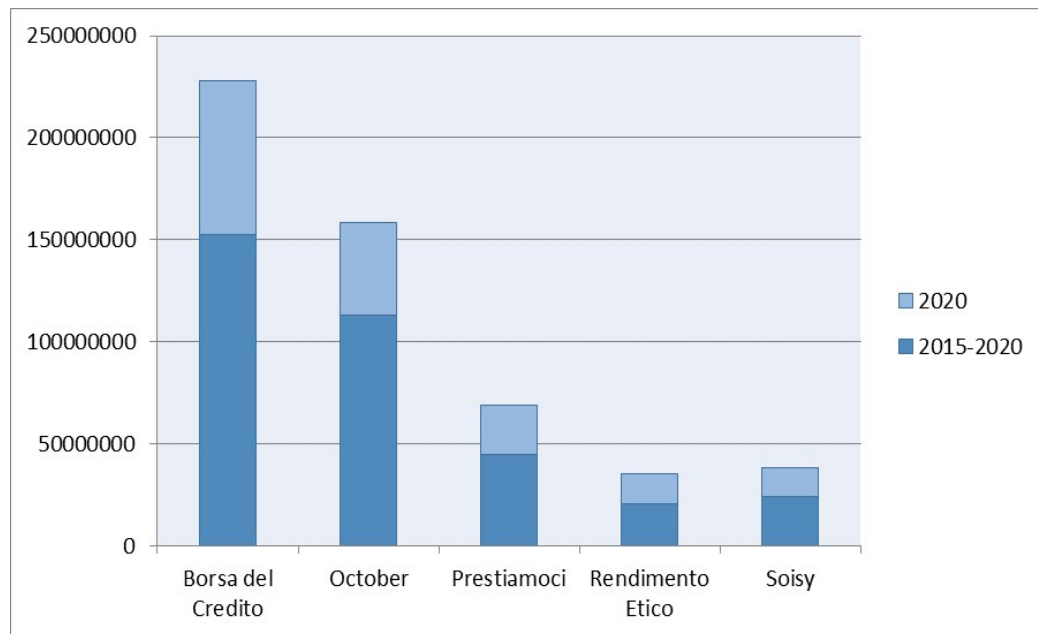


Figure 3.6: The 5 best performing lending-based CFPs in Italy

are the one financing this process in a marketplace P2P¹². Its CEO, Pietro Cesati, has noticed an increment in this type of purchase, despite the ups and downs of the first months of the pandemic. People are reorganizing their lives and they are prioritizing e-commerce even more due to the isolation and the lockdown. This process helps preserving cash by delaying the payments, which it is something very much needed considering the situation. Finally, this platform has temporarily decided to abolish commissions [71].

3.7 Donation and Reward-based CFPs

According to Starteed, the growth in 2020 was 38% which was bigger than the growth in 2019 (28%). Moreover, the total amount collected is € 31.062.089. The pandemic led to a large rise in the number of charitable campaigns [36]. In particular, during this unprecedented time, hundreds of campaigns to fight the pandemic have been promoted, for instance, the most successful were:

¹²Peer-to-peer lending consists in lending money to individuals or businesses through online services which match the lender with the borrower [76]

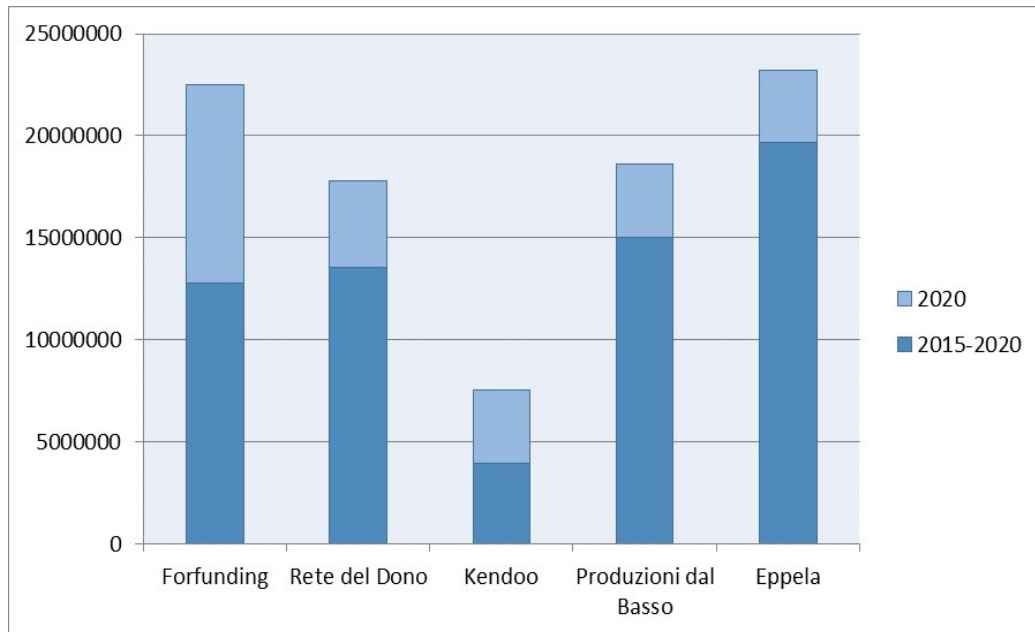


Figure 3.7: The 5 best performing donation and reward-based CFPs in Italy

San Raffaele Hospital campaign to build an intensive care area which has collected € 4.493.000 (by Chiara Ferragni and Fedez) and Cesvi.org which has launched a project to gather capital for Cotugno Hospital and has received a total of € 934.000, just to name a few [16]. Therefore, COVID-19 has surely flipped the attention towards the healthcare system however, this has not prevented other types of project from reaching compelling outcomes [69]. In conclusion, in figure 3.7 are listed the 5 best performing donation and reward CFPs. For instance, Rete del Dono has gathered almost 4,3 millions of euros, in which 2,2 millions were connected to the pandemic. The average level of donation has gone from € 66 to € 72. This data suggests an increase in solidarity among people. Furthermore, It has been noticed how this unprecedented time has shifted the attention and the interest of the population towards the local community [16].

3.8 Final considerations

In conclusion, despite some negative consequences such as the increase of frauds caused by the crisis, crowdfunding platforms were able to overcome the critical situation. In fact, by looking at the implemented strategies and the data it becomes clear the strength and power of this tool. Moreover, in the future we expect a growth of over 16% in the usage of this digital instrument in all sectors in the period between 2021 and 2026. In particular, some sectors are witnessing a bigger success, and we do not expect otherwise in the near future. These sectors are the technology field, the gaming industry and the health care system [77]. The type of CFPs which has recorded a stronger growth in Italy is equity-based crowdfunding with 95% compared to 2019. However, successful outcomes have been achieved by all types of platforms [69]. This tool is in fact becoming more popular as the time passes, following the pandemic it has been especially used to subsidize medical treatment, to deal with financial adversities and natural disasters, and to bear the costs of the economic impact on personal healthcare. Moreover, the broad range of categories for COVID-19-related campaigns suggests the damaging effects that the pandemic is having on society. Beyond that, the devastating consequences on small businesses need to be highlighted. Not to mention the increase in unemployment, and in insecurities among the population [64]. In conclusion, many questions remain yet unanswered, moreover there are still many factors we ought to analyse and several correlations to be proved.

Chapter 4

Case study: CrowdFundMe

We now present a case study about CrowdFundMe, an equity-based CFP, which was recently listed on the stock market. Its purpose is supporting with a concrete example what we have discussed in chapter 3. Hence, the discussion will address three questions: first of all, what are the consequences on this platform due to the pandemic? Secondly, what strategies has the platform implemented in attempting to overcome the crisis? And finally, what were the results?

CFM¹ is one of the five best performing equity-based crowdfunding platform in Italy which aims to protect the interests of both parties involved in the process: investors and entrepreneurs (figure 3.5). Through this platform companies can promote their campaigns and seek financial support [28]. In Italy, this type of tool is regulated by the Consob law number 18592/2013 (TUF²) which defines it an alternative financial instrument available for innovative and riskier start-ups and SMEs. For those companies, it is harder to access to traditional credit institutions. Moreover, for a number of reasons it is considered a more efficient instrument, for instance there are several benefits related to taxation and less standards compared to the Stock Market. Recently, it has been introduced a modification; These platforms are now allowed to issue mini-bonds and other financial instruments [56].

¹CrowdFundMe

²Testo Unico della Finanza

4.1 The pandemic

We start by making a comparison between 2019, 2020 and 2021 data related to the amount of funding collected (figure 4.1). First of all, during the first semester of 2019 people invested in this platform a total of 3,74 mln [43], however in the same period of 2020 the amount collected was 6,26 mln (+69%) [33], finally throughout the first trimester of 2021 the growth compared to 2020 is +126%, thus the total raised is equal to 8,55 mln. Second of all, as for the second semester CFM have seen even a bigger difference. Therefore, the total raised in 2019 was 10 mln while in 2020 rose to 17,4 mln, hence the total growth is equal to +74% [31]. It is worth mentioning that 2019 signed a turning point for the platform since during the first trimester it went public thus, it was listed on the Stock exchange. This determined a period of ramp-up for the platform. Moreover, the platform president, Tommaso Baldissera, believes that by going public CFM has become the link between fintech and traditional finance [20]. We identify one more important event which took place between 2019 and 2020: the transformation from equity-based crowdfunding to crowdfunding platform which consisted in the opportunity for backers to diversify their portfolio by investing also in real estate and mini-bonds. This is a crucial change considering the difficult situation caused by COVID-19. In fact, the platform has been promoting diversification ever since, also as a solution to face the negative consequences of the pandemic [22]. Overall, CFM has been experiencing a constant growth despite the crisis [68].

The focus will now shift to the type of projects promoted and the most successful ones. As we have mentioned in chapter 3, the most successful campaigns were those related to the healthcare system, sustainable projects, not to mention a growing interest towards the local community. Moreover, despite the bigger attention on existing companies and less on new start-ups, CFM was able to focus on both. In fact, from table 4.1 it is evident the propensity to invest in the hi-tech sector, in ecological projects, in innovating and promising start-ups (e.g. Startup Wise Guys, I-RFK) and finally COVID-19 related campaign such as Posh Wash. One other interesting com-

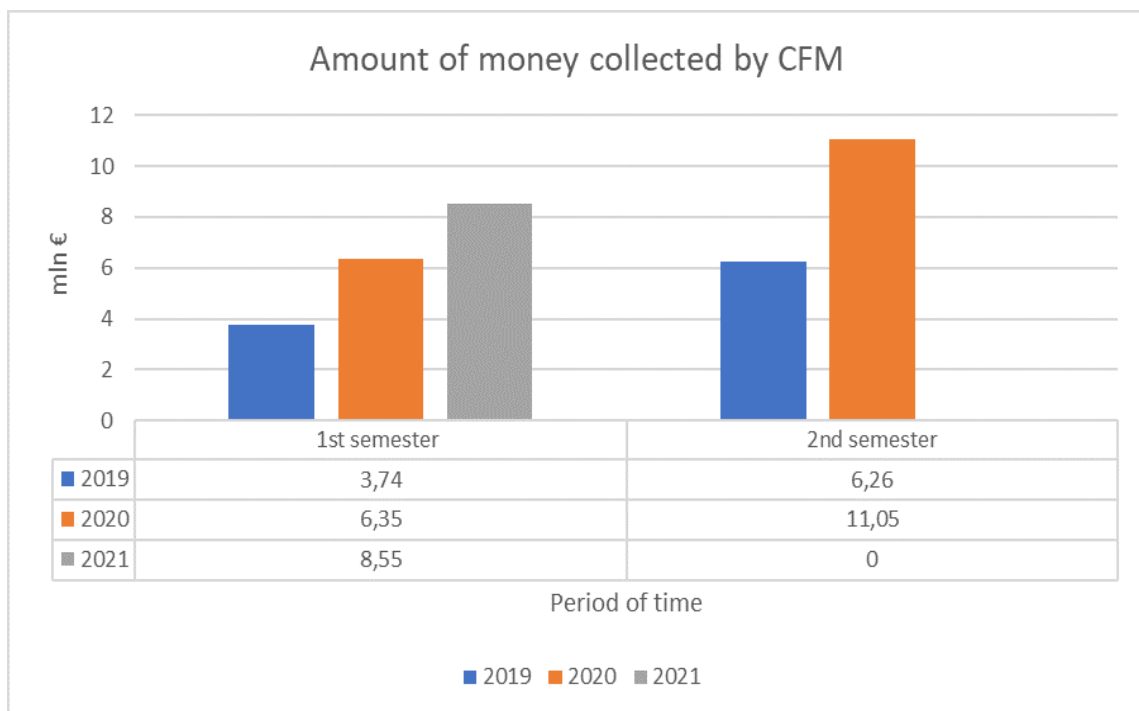


Figure 4.1: Comparison between the amount collected in 2019, 2020 and 2021. Based on [32][31][33].

pany which have experienced a growth throughout the crisis is Biofarm. It is a digital farm with the purpose of connecting local producers with final consumers. CFM is promoting campaigns related to this company because it understands the value and the growth potential that the business have considering the current standstill [23].

There is also one other interesting parameter to discuss: the Equity Crowdfunding Index. The latter was established by Politecnico di Milano and it computes the Net Asset Value of companies which have achieved successful crowdfunding campaigns [27]. According to the latest data (January 2021), this value for CFM is 39% above the national average. This suggests the meticulous selection performed by CFM when picking the companies more suitable to reach favourable outcomes. This platform has a medium-long term perspective when selecting the start-ups and SMEs, hence the aim is to individuate those businesses with potential growth and the ability to generate a return for investors in the long run. CFM was able throughout the years to construct a network of international and well-known partners with a respectable reputation [44]. These results are compelling premises in order to face future crisis. In 2021 the platform is expecting to promote smaller projects, which are related to start-ups that have not yet hit the market, in addition to bigger campaigns for SMEs with the desire of expanding. CFM will also focus on supporting diversification through mini-bonds and real estate. Finally, the selection carried out by the platform will remain strict in order to minimise frauds and to identify the most promising campaigns [34][24].

| CAMPAIGN NAME | TYPE | DESCRIPTION | AMOUNT COLLECTED |
|---------------------|-----------|---|------------------|
| DeepSpeed 2 | Equity | Electric hydrojet engine for boats (more ecological solution) | € 2.912.496 |
| I-RFK | Mini-Bond | Holding which aim to find investments for start-ups and SMEs | € 1.290.000 |
| Startup Wise Guys | Equity | the purpose is accelerating the collection of funding during the early-stage of start-ups | € 1.200.000 |
| Radicalbit | Equity | Application of artificial intelligence in the analysis of big data | € 1.106.500 |
| Arco FC | Equity | Innovation in the electric cars sector | € 1.000.000 |
| Hal Service | Mini-Bond | IT and telecommunication company | € 1.000.000 |
| Mixcycling | Equity | Innovative start-up which purpose is recycling (from packaging to automotive) | € 748.317 |
| Mazzanti Automobili | Equity | Innovative SME specialised in hyper cars | € 611.683 |
| PoshWash | Equity | Ecological washing machine to reduce the environmental impact and anti-covid machine [21] | € 579.876 |
| Fresco Frigo | Equity | Smart Refrigerator | € 500.000 |

Table 4.1: 10 best performing campaigns on CFM. Based on [26]

Bibliography

- [1] Accenture. Covid-19: 5 new human truths that experiences need to address. Technical report, Accenture, 2020. available online.
- [2] Accenture. Covid-19: How consumer behavior will be changed. Technical report, Accenture, 2020. available online.
- [3] Rosa Adamo, Domenica Federico, Mariantonietta Intonti, Simona Mele, and Antonella Notte. Crowdfunding: the case of italy. In *Crowdfunding*. IntechOpen, 2020.
- [4] Ajay Agrawal, Christian Catalini, and Avi Goldfarb. Some simple economics of crowdfunding. *Innovation policy and the economy*, 14(1):63–97, 2014.
- [5] Ajay Agrawal, Christian Catalini, and Avi Goldfarb. Are syndicates the killer app of equity crowdfunding? *California management review*, 58(2):111–124, 2016.
- [6] George A Akerlof. The market for" lemons. *Quality Uncertainty and the MarketMechanism*, 84, 1970.
- [7] Aaron H Anglin, Jeremy C Short, Will Drover, Regan M Stevenson, Aaron F McKenny, and Thomas H Allison. The power of positivity? the influence of positive psychological capital language on crowdfunding performance. *Journal of Business Venturing*, 33(4):470–492, 2018.
- [8] Atip Asvanund, Karen Clay, Ramayya Krishnan, and Michael D Smith. An empirical analysis of network externalities in peer-to-peer music-sharing networks. *Information Systems Research*, 15(2):155–174, 2004.

- [9] Tanya Beaulieu, Suprateek Sarker, and Saonee Sarker. A conceptual framework for understanding crowdfunding. *Communications of the Association for Information Systems*, 37(1):1, 2015.
- [10] Elena Belavina, Simone Marinesi, and Gerry Tsoukalas. Rethinking crowdfunding platform design: mechanisms to deter misconduct and improve efficiency. *Management Science*, 66(11):4980–4997, 2020.
- [11] Paul Belleflamme, Thomas Lambert, and Armin Schwienbacher. Crowdfunding: Tapping the right crowd. *Journal of business venturing*, 29(5):585–609, 2014.
- [12] Paul Belleflamme, Nessrine Omrani, and Martin Peitz. The economics of crowdfunding platforms. *Information Economics and Policy*, 33:11–28, 2015.
- [13] Paul Belleflamme, Nessrine Omrani, and Martin Peitz. Understanding the strategies of crowdfunding platforms. *CESifo DICE Report*, 14(2):6–10, 2016.
- [14] Paul Belleflamme and Eric Toulemonde. Negative intra-group externalities in two-sided markets. *International Economic Review*, 50(1):245–272, 2009.
- [15] Ricarda B Bouncken, Malvine Komorek, and Sascha Kraus. Crowdfunding: The current state of research. *International Business & Economics Research Journal (IBER)*, 14(3):407–416, 2015.
- [16] Sara De Carli. Crowdfunding e covid-19: il boom delle piattaforme. *VITA*, 2021.
- [17] Jeffrey A Chandler, Jeremy C Short, and Marcus T Wolfe. Finding the crowd after exogenous shocks: Exploring the future of crowdfunding. *Journal of Business Venturing Insights*, 15:e00245, 2021.
- [18] Adam B Cohen, Daniel E Hall, Harold G Koenig, and Keith G Meador. Social versus individual motivation: Implications for normative defini-

- tions of religious orientation. *Personality and Social Psychology Review*, 9(1):48–61, 2005.
- [19] Brian L Connelly, S Trevis Certo, R Duane Ireland, and Christopher R Reutzel. Signaling theory: A review and assessment. *Journal of management*, 37(1):39–67, 2011.
- [20] CrowdFundMe. Crowdfundme approva il progetto di bilancio al 31/12/2019. Technical report, CrowdFundMe, 2020. available online.
- [21] CrowdFundMe. Dalla crescita dell’equity crowdfunding all’espansione di feat food: ecco le novità di crowdfundme! Technical report, CrowdFundMe, 2020. available online.
- [22] CrowdFundMe. L’investimento ai tempi del coronavirus: diversificare per tutelare il portafoglio. Technical report, CrowdFundMe, 2020. available online.
- [23] CrowdFundMe. Biorfarm, nel 2020 il fatturato è aumentato del 130%! Technical report, CrowdFundMe, 2021. available online.
- [24] CrowdFundMe. Crowdfundme ha chiuso il 2020 con la migliore raccolta trimestrale di sempre. *CrowdFundMe [Internet]*, 2021.
- [25] CrowdFundMe. Crowdfundme è tra le migliori piattaforme di equity crowdfunding a cui guardare nel 2021, parola di money! Technical report, CrowdFundMe, 2021. available online.
- [26] CrowdFundMe. Dalla crescita della raccolta annua (+74%) ai “top performer” 2020: le novità di crowdfundme! Technical report, CrowdFundMe, 2021. available online.
- [27] CrowdFundMe. Equity crowdfunding index: tre esempi concreti del successo di crowdfundme! Technical report, CrowdFundMe, 2021. available online.
- [28] CrowdFundMe. Per cominciare. Technical report, CrowdFundMe, 2021. available online.

- [29] Douglas J Cumming, Gaël Leboeuf, and Armin Schwienbacher. Crowdfunding models: Keep-it-all vs. all-or-nothing. *Financial Management*, 49(2):331–360, 2020.
- [30] Kristof De Buysere, Oliver Gajda, Ronald Kleverlaan, Dan Marom, and Matthias Klaes. A framework for european crowdfunding. 2012.
- [31] Redazione Lapenna del Web. Crowdfundme, i dati di raccolta del 2020. *Soldionline [Internet]*, 2021.
- [32] Redazione Lapenna del Web. Crowdfundme, i risultati del primo semestre 2020. *Soldionline [Internet]*, 2021.
- [33] Redazione Lapenna del Web. Crowdfundme, raccolta record nel quarto trimestre 2020. *Soldionline [Internet]*, 2021.
- [34] Redazione Lapenna del Web. Crowdfundme, raccolta record per il primo trimestre 2021. *Soldionline [Internet]*, 2021.
- [35] Greg Elmer, Sabrina Ward-Kimola, and Anthony Glyn Burton. Crowdfunding during covid-19: An international comparison of online fundraising. *First Monday*, 2020.
- [36] Mohamed Farhoud, Sheeza Shah, Pekka Stenholm, Ewald Kibler, Maija Renko, and Siri Terjesen. Social enterprise crowdfunding in an acute crisis. *Journal of Business Venturing Insights*, 15:e00211, 2021.
- [37] Steffen Farny, Ewald Kibler, and Simon Down. Collective emotions in institutional creation work. *Academy of Management Journal*, 62(3):765–799, 2019.
- [38] Roser Ferrer. Who are the millennials. Technical report, Caixa Bank Research, 2018. available online.
- [39] Denis Frydrych, Adam J Bock, Tony Kinder, and Benjamin Koeck. Exploring entrepreneurial legitimacy in reward-based crowdfunding. *Venture capital*, 16(3):247–269, 2014.

- [40] David Gedda, Billy Nilsson, Zebastian S ath en, and Klaus Solberg S oilen. Crowdfunding: Finding the optimal platform for funders and entrepreneurs. *Technology Innovation Management Review*, 6(3):31–40, 2016.
- [41] Martina E Greiner and Hui Wang. Building consumer-to-consumer trust in e-finance marketplaces: An empirical analysis. *International Journal of Electronic Commerce*, 15(2):105–136, 2010.
- [42] Tzung-Jeng Hwang, Kiran Rabheru, Carmelle Peisah, William Reichman, and Manabu Ikeda. Loneliness and social isolation during the covid-19 pandemic. *International Psychogeriatrics*, 32(10):1217–1220, 2020.
- [43] Mf Aim Italia. Crowdfundme, bilancio 2019 con ricavi in aumento. Technical report, Milano Finanza, 2020. available online.
- [44] Mf Aim Italia. Crowdfundme, +39% rispetto alla media nazionale dell’equity crowdfunding index. Technical report, Milano Finanza, 2021. available online.
- [45] Evangelos Katsamakos and Yannis Bakos. Design and ownership of two-sided networks: implications for internet intermediaries. *Journal of Management Information Systems*, 25(2):171–202, 2004.
- [46] Michael L Katz and Carl Shapiro. Systems competition and network effects. *Journal of economic perspectives*, 8(2):93–115, 1994.
- [47] John Kennes and Aaron Schiff. Simple reputation systems. *Scandinavian Journal of Economics*, 109(1):71–91, 2007.
- [48] Andreas Kuckertz, Leif Br andle, Anja Gaudig, Sebastian Hinderer, Carlos Arturo Morales Reyes, Alicia Prochotta, Kathrin M Steinbrink, and Elisabeth SC Berger. Startups in times of crisis—a rapid response to the covid-19 pandemic. *Journal of Business Venturing Insights*, 13:e00169, 2020.

- [49] Megan Leonhardt. Nearly 3 out of 4 millennials have donated money during the pandemic. Technical report, CNBC.com, 2020. available online.
- [50] Mingfeng Lin, Nagpurnanand R Prabhala, and Siva Viswanathan. Judging borrowers by the company they keep: Friendship networks and information asymmetry in online peer-to-peer lending. *Management Science*, 59(1):17–35, 2013.
- [51] Yang Liu, Yuan Chen, and Zhi-Ping Fan. Do social network crowds help fundraising campaigns? effects of social influence on crowdfunding performance. *Journal of Business Research*, 122:97–108, 2021.
- [52] Maria Manganiello and Irina Virginia Dragulanescu. Sustainable equity crowdfunding projects: Are they a driving force to revitalise italy after global socio-economic consequences of the covid-19? *SHS Web of Conferences*, 92, 2021.
- [53] Ethan Mollick. The dynamics of crowdfunding: An exploratory study. *Journal of business venturing*, 29(1):1–16, 2014.
- [54] Todd W Moss, Maija Renko, Emily Block, and Moriah Meyskens. Funding the story of hybrid ventures: Crowdfunder lending preferences and linguistic hybridity. *Journal of Business Venturing*, 33(5):643–659, 2018.
- [55] Wharton University of Pennsylvania. How a simple change can protect crowdfunding backers from fraud. Technical report, Wharton University of Pennsylvania, 2019. available online.
- [56] Giovanni Pasquariello. Crowdfunding: tipologie, normativa e opportunità. Technical report, Diritto.it, 2020. available online.
- [57] Yannis Pierrakis and Liam Collins. Crowdfunding: A new innovative model of providing funding to projects and businesses. *Available at SSRN 2395226*, 2013.

- [58] Daniela Popescul, Laura Diana Radu, Vasile Daniel Păvăloaia, and Mircea Radu Georgescu. Psychological determinants of investor motivation in social media-based crowdfunding projects: A systematic review. *Frontiers in Psychology*, 11:3676, 2020.
- [59] Nathaniel Popper and Taylor Lorenz. Gofundme confronts coronavirus demand. *The New York Times [Internet]*, 2020.
- [60] Robert R Prechter Jr. Unconscious herding behavior as the psychological basis of financial market trends and patterns. *The Journal of Psychology and Financial Markets*, 2(3):120–125, 2001.
- [61] Roger Royse. New sec rules soon to facilitate crowdfunding. Technical report, haynesboone, 2021. available online.
- [62] Richard M Ryan and Edward L Deci. Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1):54–67, 2000.
- [63] Linas Sadzius and Tomas Sadzius. Existing legal issues for crowdfunding regulation in european union member states. *International Journal of Business, Humanities and Technology*, 7(3):52–62, 2017.
- [64] Sameh Nagui Saleh, Christoph U Lehmann, and Richard J Medford. Early crowdfunding response to the covid-19 pandemic: Cross-sectional study. *Journal of medical Internet research*, 23(2):e25429, 2021.
- [65] Edward J Schoen. The 2007–2009 financial crisis: An erosion of ethics: A case study. *Journal of Business Ethics*, 146(4):805–830, 2017.
- [66] Armin Schwienbacher and Benjamin Larralde. Alternative types of entrepreneurial finance. In *The Oxford Handbook of Entrepreneurial Finance*. 2012.
- [67] Rotem Shneor and Natalia Mæhle. Advancing crowdfunding research: new insights and future research agenda. 2020.

- [68] Sole24ore. Crowdfundme, quarto trimestre in accelerazione (nonostante la pandemia). *Sole24ore [Internet]*, 2021.
- [69] Starteed. Il crowdfunding in italia. Technical report, Starteed, 2020. available online.
- [70] Sue-Ann Tan. More people trading and investing during covid-19 pandemic. *The straits time [Internet]*, 2020.
- [71] Fintastico Team. L’impatto del coronavirus sulle piattaforme di lending crowdfunding. Technical report, Fintastico, 2020. available online.
- [72] Technori. Social entrepreneurs vs. entrepreneurs: What’s the difference? Technical report, Technori, 2012. available online.
- [73] Ferdinand Thies, Michael Wessel, and Alexander Benlian. Network effects on crowdfunding platforms: Exploring the implications of relaxing input control. *Information Systems Journal*, 28(6):1239–1262, 2018.
- [74] Rob Walker. How robinhood convinced millennials to trade their way through a pandemic. Technical report, Marker, 2020. available online.
- [75] Michael Wessel. Crowdfunding: Platform dynamics under asymmetric information. 2016.
- [76] Jochen Wirtz, Kevin Kam Fung So, Makarand Amrish Mody, Stephanie Q Liu, and HaeEun Helen Chun. Platforms in the peer-to-peer sharing economy. *Journal of Service Management*, 2019.
- [77] Laura Wood. World crowdfunding market growth, trends, and forecasts 2021-2026: Reward-based crowdfunding is expected to grow significantly. 2021.