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## (Re)searching the crowd

# Implications on donation- and reward-based crowdfunding donations

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### 1. Abstract

Charities increasingly depend on online giving, like donation- and reward-based crowdfunding, as door-to-door collections are less employable in a time of physical distancing. However, in Europe, in terms of the overall funding volume, philanthropic crowdfunding is currently still considered a niche phenomenon. Our study, based on survey research, contributes to the philanthropic literature in four ways. First, we report on giving behavior before and during COVID-19. Second, our data is based on a random group of respondents of the Dutch population (n = 2.125), and we can generalize our findings beyond a specific crowdfunding platform. Third, we report on giving behavior on an individual level, instead of macro-level data, and describe the number of donors and the donation amount. Fourth, we report both on donors and non-donors, while earlier studies hardly mention non-donors. The Netherlands was selected as a case country, because Dutch charities increasingly focus on crowdfunding, next to door-to-door collections. Therefore, we report on both door-to-door collections and crowdfunding. We show that the percentage of individuals supporting crowdfunding did not increase between 2018 (11%) and 2020 (12%). In 2020, donors donated 13% higher amounts than in 2018, but mostly because of outliers. For door-to-door giving, the amount donated remained the same. Crowdfunding is mostly supported by individuals active via social media, while door-to-door giving is more often supported by older individuals. In the Netherlands, charities need to compete with individuals for donations in a crowdfunding context: most individuals give to projects connected to an acquaintance.

### 2. Introduction

Door-to-door collection was once the most popular fundraising strategy for charities (e.g. see the Netherlands in Van Teunenbroek & Bekkers, 2021; 2020a), besides a street collection, at work, universities or during events. However with the COVID-19 pandemic physical distancing became a norm and as a result, charities were less able to make use of door-to-door collections (Van Teunenbroek & Bekkers, 2021). Increasingly, collecting donations online became an interesting and feasible option for charities. For instance, via crowdfunding by soliciting donations via a crowdfunding platform. In particular, donation and reward-

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based crowdfunding, also referred to as philanthropic crowdfunding (van Teunenbroek, 2016), were considered most likely to facilitate charities due to their similarity to door-to-door collections.

Globally, however, philanthropic crowdfunding has received the least donations, compared to others forms of crowdfunding (Chervyakov & Rocholl, 2019). In the United States, online giving has stagnated since 2018 (GUSA, 2019), and philanthropic crowdfunding still receives limited societal attention (Chervyakov & Rocholl, 2019). In the Netherlands, the situation is similar as crowdfunding is still considered a niche phenomenon (van Teunenbroek, 2020). In addition, research on philanthropic crowdfunding is limited, most researchers focus on equity-based or reward-based crowdfunding (Zhang, Tan, Sun & Yang, 2020).

In terms of crowdfunding as a fundraising strategy, it has several challenges. First of all, the small group of donors is problematic, since the more donors support a certain crowdfunding campaign, the higher the likelihood a project will succeed in collecting the necessary amount in a timely manner. In addition, crowdfunding campaigns run only for a short period of time (days rather than months), and considering the relatively small financial contributions (van Teunenbroek & Bekkers, 2020b), they need to attract as many donors as possible in a short time frame to reach their funding targets. Therefore, it is not surprising that crowdfunding has a low success rate: only 13-20% of overall crowdfunding projects are successfully funded (Forbes & Schaefer, 2017; Belleflamme, Lambert & Schwienbacher, 2013). In 2020, for instance, about two-thirds of the projects in one of the most popular and successful crowdfunding platforms worldwide, Kickstarter, failed to assemble the target amount (Statistica, 2021). In addition, only one out of ten viewers at one of the Netherlands largest crowdfunding platforms donated (Van Teunenbroek & Bekkers, 2020b).

In this article we focus on understanding possible differences between donors who give via crowdfunding campaigns, and those who give via door-to-door collections (i.e. traditional funding). To achieve this goal, survey research under a random sample of respondents of the Dutch population is undertaken focusing both on who gives via crowdfunding and who doesn't. We are also able to compare crowdfunding behavior with more a traditional giving method: door-to-door collections. The Netherlands was selected as case country because a door-to-door collection was the main fundraising method for years, however, recently charities are increasingly focusing on online methods like crowdfunding (Van Teunenbroek & Bekkers 2021). An important contribution of this paper, is our ability to compare the giving behavior via crowdfunding and door-to-door giving both before and during COVID-19.

Earlier studies focus mostly on one platform at a time (e.g. Brent & Lorah, 2019; Gleasure et al., 2016; Greenberg & Mollick, 2015; Kim et al., 2016; Moqri et al., 2016), while the difference between crowdfunding platforms is high (Belleflamme et al., 2015). Instead of focussing on one platform, we focus on a random group of Dutch individuals (i.e. microdata) representable for the Dutch population. Our focus on a general group of individuals, rather than macro data or platform specific data, allows us to contribute in two ways: (1) we can distinguish between the number of donations and the donation amount and (2) we provide information about who gives via crowdfunding and door-to-door collections.

First, while macro-level data is available, these are not able to provide information on an individual level (an exception is Cecere, Le Guel & Rochelandet, 2019). This lack of understanding is striking, especially knowing that the success of any crowdfunding platform (e.g., Belleflamme, Omrani & Peitz, 2015) and the respective crowdfunding campaigns (e.g., Colombo, Franzoni & Rossi-Lamastra, 2015; Kuppuswamy & Bayus, 2018; Stanko & Henard, 2017) directly depends on the number of donors.

Second, surprisingly few scholars have focussed on examining the characteristics of crowdfunding donors (McKenny, Allison, Ketchen, Short & Ireland, 2017). This is likely the result of focusing on data shared by crowdfunding platforms, which often are not allowed to share any information about the donors. Even fewer is known about people who do not give via crowdfunding. Since the group of non-givers via crowdfunding is large (Van Teunenbroek & Bekkers, 2021), it is important to explore this group as well (Vaznyte, Andries & Manigart, 2020). We aim to develop an overview of those who do and do not give via crowdfunding and focus

on the key socio-demographic variables for giving (Bekkers & Schuyt, 2008). In addition, we report both on giving via crowdfunding and door-to-door giving, and describe if there is an overlap between people giving via crowdfunding and people who give via a traditional method like door-to-door collections.

We conducted survey research among a random sample of respondents of the Dutch population, in the year 2019 ( $n = 1,201$ ) and 2021 ( $n = 924$ ). The data we analysed is part of the Giving in the Netherlands Panel Survey (GINPS, see Bekkers, Schuyt, Gouwenberg, De Wit, Van Teunenbroek, 2021). We measure both offline giving behavior via door-to-door collections and online giving behavior via crowdfunding. Crowdfunding, in our case, is based on donations from donors either without compensation (donation-based) or a small compensation (reward-based). We focus on these two, since they are most philanthropic in nature and therefore most likely to facilitate charities. The estimates of the contributions by individuals are based on observations that we weighted (based on gender, age, education, household size, province, region, income and deduction) to obtain a representative sample of the Dutch population with regard to these characteristics.

### 3. Literature and hypotheses

#### 3.1 *Twenty years of giving behavior in the Netherlands*

In 2018, the Dutch philanthropic sector was good for a total of 5.7 billion euros, which corresponds to 0.8 per cent of the Gross Domestic Product (Bekkers, Gouwenberg & Schuyt, 2021). Together, households and corporations are good for almost 80 per cent of the philanthropic total. In 2018, households donated a total of 2.4 million euros, companies 1.9 million euros. As a comparison, in 1997 households donated a total of 1.5 million euros, companies 0.7 million euros. However, while the total amount increased between 1997 and 2018, the per cent of the GDP remained the same (Bekkers, Gouwenberg & Schuyt, 2021). Focusing on households, the philanthropic sector is facing two broad problems: charities have a hard time reaching potential donors (Bekkers & van Teunenbroek, 2020), and those who do give, donate lower amounts (Van Teunenbroek & Bekkers, 2020a). In other words, in the past 20 years the Dutch started giving a smaller percentage of their household income to charitable causes (Bekkers & van Teunenbroek, 2020). Considering the importance of household donations, the decreasing generosity of Dutch households are likely to complicate matters for the philanthropic sector.

#### 3.2 *How did the giving behavior change during the COVID-19 pandemic?*

A large percentage of the Dutch population gives at least once a year, and most do so via door-to-door collections (Van Teunenbroek & Bekkers, 2020). However, the effectiveness of door-to-door collections decreased over the past ten years (Van Teunenbroek & Bekkers, 2021), thus already before the COVID-19 pandemic. Since the start of the COVID-19 pandemic, as a result of a focus on physical distancing, we expect that giving via door-to-door collections decreased further, since the chance of being asked to give is lower. In accordance, in our door-to-door participation hypothesis, we propose that:

**H1a:** The percentage of donors giving via door-to-door giving is higher before the COVID-19 pandemic than during the pandemic.

If someone is asked to give, we do expect the average amount to be higher during the pandemic than before the pandemic. The average amount people give via door-to-door collections has not changed in the past 15 years and is still at four euros (Van Teunenbroek & Bekkers, 2020), but the average did temporarily drop after the financial crisis of 2007-2008 (Van Teunenbroek & Bekkers, 2021). However, this time we are confronted with a health-related crisis and health is the most popular donation goal in the Netherlands (Van

Teunenbroek & Bekkers, 2020). Throughout the pandemic the focus on the importance and value of health increased (Lanzi, 2020), and this increasing awareness could result in an increase in the donation amount. Awareness of need is an important motive for giving and it can increase donation amounts (Bekkers & Wiepking, 2011). For instance, a study in Norway found that a focus on more common illnesses received higher donations than less common illnesses (Olsen & Eidem, 2003). Schwartz (1970) concludes that donors donate higher amounts if there is a perceived higher need for help. In accordance, in our door-to-door amount hypothesis, we propose that:

**H1b:** The amount donated by donors via door-to-door giving is higher during the COVID-19 pandemic than for the pandemic.

A research agency in the Netherlands, reported that philanthropic crowdfunding assembled 32 million euros in 2018 (Crowdfundingcijfers, 2019), and 35 million in 2020 (Crowdfundingcijfers, 2021), which resembles an increase of 9%. However, we do not know if this increase is the result of attracting more donors, or donors donating higher amounts. Our study can provide an insight about this, by measuring both the number of donors and the donation amount.

Throughout the COVID-19 pandemic there has been an increasing focus on online communication (CAF America et al., 2021; CBS, 2020), and social media use increased (IPG Mediabrands, 2020). Since the online component and social media are related with crowdfunding (Clauss, Niemand, Kraus, Schnetzer & Brem, 2020; Lu, Xie & Kong, 2014), we expect that more people donated via crowdfunding during the COVID-19 pandemic than for the pandemic, simply because the chance of seeing a crowdfunding project is higher. For instance, in the United States, online giving to human services increased during the pandemic (Paarlberg, Bergdoll, Houston & Kou, 2021). In accordance, with our crowdfunding participation hypothesis, we propose that:

**H1c:** The percentage of donors via crowdfunding is higher during the COVID-19 pandemic than for the pandemic.

Giving via crowdfunding is a relatively new funding method, and compared to door-to-door giving, individuals are less familiar with 'the right donation amount' (Van Teunenbroek, 2021). In such an ambiguous context, we expect the donation amount to be subjectable to external stimuli (Van Teunenbroek, Bekkers & Beersma, 2020), like an increased awareness of need as a result of a crisis, especially since it is a health-related crisis. In accordance, with our crowdfunding amount hypothesis, we propose that:

**H1d:** The amount donated by donors via crowdfunding is higher during the COVID-19 pandemic than for the pandemic.

### 3.3 What are the socio-demographics of crowdfunding donors?

What is the overlap between individuals giving via crowdfunding and those giving via a traditional method like door-to-door collections? The literature on crowdfunding hardly mentions information about donors (and non-donors). Possibly because most studies on crowdfunding use data that is shared by crowdfunding platforms (Kuppuswamy & Bayus, 2018), where information on socio-demographics and personal characteristics are not collected. To fill this void in the philanthropic literature, we developed an overview which is a mix of the empirical findings reporting on the characteristics of crowdfunding donors, integrated with insights from giving via door-to-door giving (i.e. traditional giving). We focus on the key socio-demographics previously identified with traditional giving (Bekkers & Schuyt, 2008): age, education, gender and income.

**Age:** Based on a literature review of 550 publications, Bekkers & Wiepking (2011b) conclude that in general there is a positive relationship between age and giving in an offline context: the odds of giving via door-to-door giving are higher among older individuals. On the contrary, surveying French individuals, researchers found that with crowdfunding, a higher age is negatively associated with both the decision to contribute and

the donation amount, but not significantly so (Cecere et al., 2019). The negative direction might be the result of the online context: in general age is negatively associated with internet use, as is the use of social media (CBS, 2020). As we can read later in this article, social media presence is expected to be an important predictor of donating via crowdfunding. Therefore, we expect age to have a negative relation with crowdfunding participation:

**H2a:** Age is negatively related with donating via crowdfunding.

*Education:* Most empirical studies found a positive correlation between the level of education and giving in an offline context (Bekkers & Wiepking, 2011b). For instance, Dutch residents with a higher level of education give higher amounts via door-to-door giving, but not more often (Van Teunenbroek & Bekkers 2020). Another study, however, found that a higher level of education has been found to have negatively impact the donation amount in a crowdfunding context, and it leaves the probability of giving unaffected (Cecere et al., 2019). As crowdfunding is a relatively new way of funding, and the literature describes that early adopters (i.e. those attracted to new and innovative processes, see Rogers, 1983) are often higher educated (Engel, 1990), we expect education to have a positive relation with crowdfunding participation:

**H2b:** Education is positively related with donating via crowdfunding.

*Gender:* The findings on gender differences in giving vary between empirical studies, as concluded by Bekkers & Wiepking (2012). In the Netherlands, men give higher amounts, but there is no gender effect on the probability of giving via door-to-door collections (Bekkers, 2006; Van Teunenbroek & Bekkers, 2020). Other studies have found a gender effect on the probability of giving in an offline context; women are more likely to give than men (Reed & Selbe, 2002; Feldman, 2007; Paarlberg et al., 2021). However, other studies found that men are more likely to give than women, but there is no relationship between gender and the donation amount (Cecere et al., 2019). Reviewing donations to Kickstarter (a popular crowdfunding platform). Researchers found that there are slightly more males (55%) than female donors (Robb, Marom and Sade, 2013), and men are more likely to donate more than once (Gafni et al., 2020). The representation of women among donors depends on the category of the project: female donors are underrepresented among projects in gaming and technology and overrepresented among projects in fashion, publishing and filming (Greenberg & Mollick, 2015). A survey among students found that women are more likely to give via crowdfunding than men (Cho, Lemon, Levenshus & Childers, 2019). Based on the found literature, there is no clear indication in terms of crowdfunding participation and gender. Therefore, we explore rather than test the relationship between gender and crowdfunding participation.

*Income:* Research provides overwhelming evidence for a positive relationship between income and donating via door-to-door giving (Bekkers & Wiepking, 2012). Similar results are found with crowdfunding: a higher income is positively associated with both the decision to contribute and the amount given (Cecere et al., 2019). In accordance, we propose:

**H2c:** Income is positively related with donating via crowdfunding.

### 3.4 Are crowdfunding donors more active on social media?

Initiators of crowdfunding campaigns strategically use social media to reach potential donors (Borst, Ferguson & Moser, 2018; Datta, Sahaym & Brooks, 2019; Sahaym, Datta & Brooks, 2021). The basic assumption is that social media helps project creators establish new contacts (Beier and Wagner, 2015), who in turn might become donors and contribute to enhanced project performance. Indeed, prior research has established that social media usage contributes to crowdfunding success (Clauss, Niemand, Kraus, Schnetzer & Brem, 2020; Lu, Xie & Kong, 2014).

We argue that since social media is often used to reach potential donors, social media activity is related to the likelihood of being a crowdfunding donor. It is well known from information processing theory that people

are more likely to engage in a certain action if they are aware of it (Bettman, 1970; Bettman, Johnson & Payne, 1991). Earlier studies found that there is a general lack of awareness in crowdfunding, especially in Europe (Vaznyte et al., 2020). Lack of awareness about crowdfunding might hence explain the low participation rate. In turn, those who donate via crowdfunding are more aware of its existence (Vaznyte et al., 2020), possibly because they are more present on social media. In our social media hypothesis, we propose that:

**H3:** Crowdfunding donors are more often represented on social media than non-donors.

### 3.5 *Is crowdfunding mostly peer-to-peer giving?*

While in the beginning crowdfunding was mostly used by private individuals (Berliner and Kenworthy 2017; Kim & De Moors, 2017; Snyder, Mathers & Crooks), charitable organizations catch the trend by building crowdfunding sites to host their own projects (Zhang et al., 2020).

Nonetheless, for now, a large percentage of donors to crowdfunding projects comprises family members, friends and close acquaintances (Borst et al., 2018). The findings of Borst et al. (2018) are based on one Dutch platform, therefore, the results cannot be generalized. English (2013) found that among an Australian platform, family and friends make up for a large percentage of donors and donate the highest amounts. On the other hand, successful projects go beyond the initiator's own network and also attract people at a greater distance (Agrawal, Catalini, Goldfarb, 2015). However, as few projects can be considered successful, and we do not focus on successful projects, we expect that most donors are an acquaintance (i.e. family, friend or colleague) of the initiator. In accordance, in our initiator hypothesis we propose that:

**H4a:** With crowdfunding, the initiator is more often an acquaintance of the donor than a charity.

The literature has given the least attention to the end-beneficiaries of the projects: the recipients. Possibly because of the assumption that initiators and end-beneficiaries are the same. With crowdfunding, the end-beneficiaries mainly consists out of individuals or small groups rather than a large group of people (Cecere et al., 2019; Gafni, Marom, Robb & Sade, 2020; Salido-Andres, Rey-Garcia, Alvarez-González & Vázquez, 2020). In some cases, individuals use crowdfunding to ask for assistance to cope with personal costs (e.g. funerals, educations costs, animal care) (Gleasure and Feller 2016; Kim, Buffart & Croidieu, 2016; Moqri and Bandyopadhyay 2016). Crowdfunding could serve as a threat for charities, since with crowdfunding charities having to compete with private individuals for donations in the online environment. Earlier studies suggest that crowdfunding donors mostly give to individuals or small groups (Cecere, et al., 2019; Gafni, et al., 2020; Salido-Andres et al., 2020), rather than charities. These findings, however, might be platform-specific. We will test if this is also the case focusing on an individual level, instead of focussing on a specific platform. In accordance, in our end-beneficiary hypothesis we propose that:

**H4b:** With crowdfunding, the end-beneficiary is more often an acquaintance of the donor than a charity.

## 4. Methodology

The data we analysed was part of the Giving in the Netherlands Panel Survey (GINPS, see Bekkers, Schuyt, Gouwenberg, De Wit, Van Teunenbroek, 2021). It comprised of a random sample of respondents of the Dutch population. The data was collected in August 2019 (10th wave of GINPS, n = 1,201) and in August 2021 (11th wave of GINPS, n = 924 ) and reports on (giving) behavior in 2018 and 2020. The survey was completed by a random sample of respondents of the Dutch population. We collected data both about giving via door-to-door collections (i.e. offline giving behavior) and crowdfunding (i.e. online giving behavior ). In addition, we collected socio-demographic information, such as age, gender, education and income. We also collected data about the type of crowdfunding project (e.g. culture and arts or international aid), the initiator and end-beneficiary of the crowdfunding project and social media use of the participants.

#### 4.1 Procedure

The procedure was the same for both waves. Fieldwork in the form of a survey for GINPS was carried out by Kantar Public, one of the major polling research institutes in the Netherlands, in the period May (coding the survey) – August (carrying out fieldwork). The questionnaire consists of several modules: (1) values, (2) giving behavior, (3) attitude, and (4) demographic and socio-economic background characteristics. In module 2, participants are asked about their giving behavior per donation method: first door-to-door collection and then giving online. Per question, participants can opt to either not answer the question or to indicate that they do not know the answer, as a result the sample size may vary per variable.

#### 4.2 Variables

We measured participants *offline giving behavior* by asking if someone gave via a door-to-door collection in the past year. Unfortunately, we have no information about the donation amount via door-to-door collections on a year-basis. We did measure their giving behavior via door-to-door collections in the two weeks preceding the survey.

We measured their *online giving behavior* by first asking if they gave online via online an collection or via crowdfunding. In the 10th wave of GINPS as a next step, we asked how much and how often they gave via crowdfunding. In the 11th wave of GINPS we also asked if they gave to a certain goal and if yes how much per goal. The list included: religion, international relief and development, local community and basic needs, environment, nature and animals, sports and recreation, culture and arts, education and research and unclassified. Unclassified refers to a combination of goals: for instance if someone gave to a health-related project in Africa (i.e. health and international relief).

We focused on the key *socio-demographic* variables for giving (Bekkers & Schuyt, 2008). Namely, age in years, gender (a dummy variable with females coded as 1), education (ranging from 1 ‘no formal education above elementary school’ to 3 ‘University degree or higher’) and income. Income reports the gross annual household income, measured via an interval variable and then computed into quantiles. The first quantile includes incomes up to €26,300. The second between €26,300 and €43,500. The third between €43,500 and €73,000. The fourth included incomes between €73.00 and €145.400.

*Social media use* was measured in the 11th wave of GINPS via a list of social media platforms: Facebook, YouTube, Instagram, LinkedIn, Twitter, TikTok and Snapchat. Participants were asked if, on a yearly basis, they used one of these mediums (a dummy variable with yes coded as 1). Per media-platform, we then asked how often they used social media (ranging from 1 ‘Once a month or less’ to 5 ‘About once an hour or more’). We also asked if they were asked to give to crowdfunding via one of these social media channels.

*The initiator* of the project was measured in the 11th wave of GINPS by asking about the relationship with the initiator. Participants could indicate if the initiator was a: family member, friend, acquaintance, colleague, local entrepreneur, local association, charity, or corporation. They could also select that they did not know who the initiator was. For crowdfunding, we also asked if they were asked to give by the initiator.

*The end-beneficiary* of the project was measured in the 11th wave of GINPS with the same list as the initiator. We asked if the end-beneficiary was a: family member, friend, acquaintance, colleague, local entrepreneur, local association, charity, or corporation. They could also select that they did not know who the end-beneficiary was.

*Motives for giving* via crowdfunding were measured in the 10th wave via a list of suggestions: (1) known with the initiator, (2) personally asked by the initiator, (3) project has societal value, (4) I often support projects within this discipline, (5) because of the reward, (6) I think the project is important and (7) I know the



Table 1. Descriptive statistics, for 2018 and 2020

Variable	2018	2020
Participants	1.201	924
Crowdfunding		
Participation	11%	12%
Average	43.18 ( <i>SD</i> = 60.68)	48.93 ( <i>SD</i> = 68.60)
Median	20.00	25.00
Mode	10.00	20.00
Door-to-door		
Participation	69%	61%
Age	48.89 ( <i>SD</i> = 17.78)	54.99 ( <i>SD</i> = 16.38)
Female	51%	51%
Education		
Low	23%	21%
Medium	40%	34%
High	36%	45%
Income		
First quantile	22%	27%
Second quantile	24%	25%
Third quantile	36%	26%
Fourth quantile	18%	23%
Active via social media		
Yearly basis		86%
Multiple times a day		50%
Asked to give to		
Crowdfunding year basis		20%
Online two weeks	3%	4%
Door-to-door two weeks	27%	19%
Initiator of the crowdfunding project is		
An acquaintance		75%
A charity		9%
End-beneficiary of the crowdfunding project is		
An acquaintance		44%
A charity		20%
Weight variable	1.00 ( <i>SD</i> = .52)	1.00 ( <i>SD</i> = .34)

organization connected to the project. Participants were asked to select their main motive for donating via crowdfunding.

#### *4.3 Treatment of the data*

Following the example of Winship and Ladd (1994), the estimates of the contributions by individuals are based on observations that we weighted (based on gender, age, education, household size, province, region and income) to obtain a representative sample of the Dutch population with regard to these characteristics (Bekkers, Boonstoppel, De Wit & Van Teunenbroek, 2021). Weights are commonly assigned in survey research to correct imbalance between the survey sample and the population: the weighted records represent the population of inference as closely as possible (Brick & Kalton, 1996; Kalton & Flores-Cervantes, 2003).

#### *4.4 Participants and descriptive statistics*

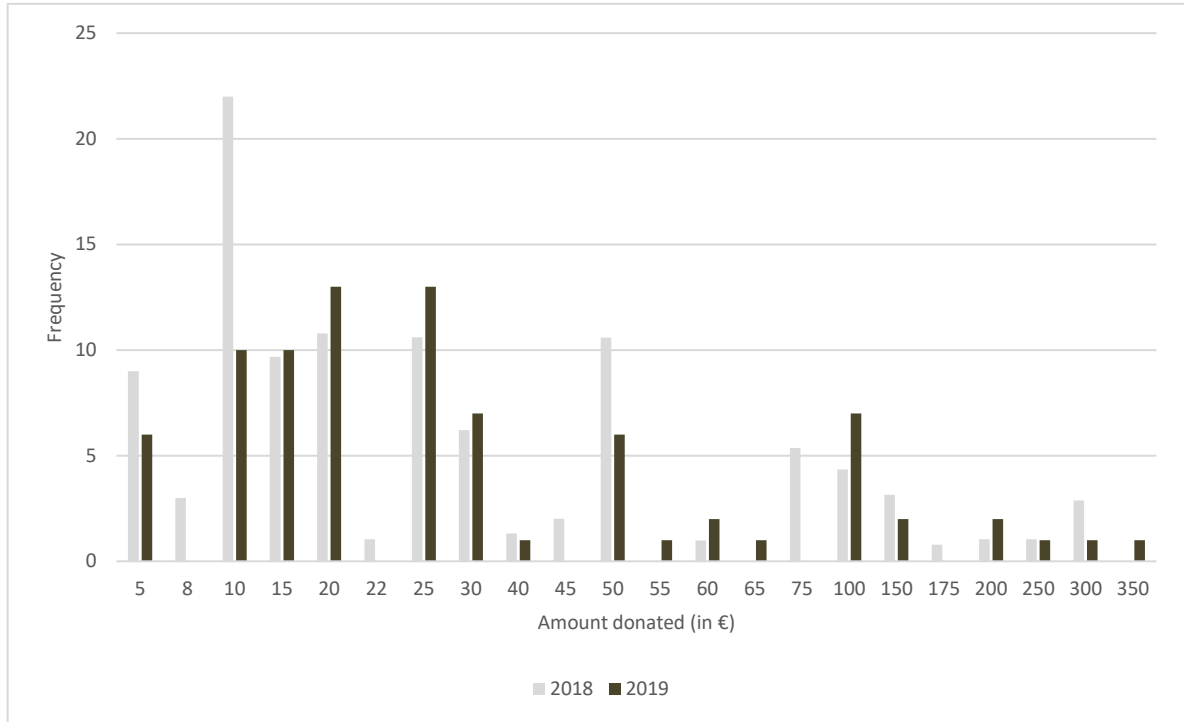
The data consists of a random sample of respondents of the Dutch population reporting on their giving behavior in 2018 ( $n = 1.201$ ) and 2020 ( $n = 924$ ). For both years, half of the sample consisted of female participants (see Table 1). For 2018 the average age was 49 years ( $SD = 17.78$ ), in 2020 the average age was 55 years ( $SD = 16.38$ ).

### **5.0 Results**

#### *5.1 Giving behavior before and during the COVID-19 pandemic*

First, we present the donation behavior on a yearly basis, comparing 2018 with 2020. We discuss both giving via door-to-door collections and crowdfunding. In 2018, 69% of the participants indicated that they gave at least once a year via a door-to-door collection. In 2020, 61% of the participants gave via a door-to-door collection. A Chi-Square analysis shows that the difference is significant,  $\chi^2(1, N = 2.128) = 14.61, p < .001$ . These findings do support our door-to-door participation hypothesis (h1a), predicting that giving via door-to-door collections decreased, albeit by a relatively small percentage.

Figure 1. Number of times a certain amount is donated on a yearly basis, for 2018 (n = 108) and 2020 (n = 84).



Furthermore, our crowdfunding participation hypothesis (h1c) predicted an increase in donations via crowdfunding, however our data did not support this claim. With respect to crowdfunding, the percentage of donors remained the same,  $X^2(1, N = 2.128) = 1.15, p = .284$ . In 2018, 11% of the participants gave at least once a year via crowdfunding, with an average of 43 euros ( $SD = 60.68$ ). Crowdfunding was not supported by a larger group in 2020 (12% donated), however the average amount of 49 euros ( $SD = 68.60$ ) in 2020 was higher. An Independent Samples T-test shows that the difference was not significant ( $t(191) = -.79, p = .430$ ). A Mann-Whitney U test showed similar results. The median amount donated in 2018 (20.00) was not significantly higher than the median amount donated in 2020 (25.00),  $U = 4092.50, n = 192, p = .194$ . This does not support our crowdfunding amount hypothesis, predicting an increase in the amounts donated via crowdfunding. It appears that the higher amount in 2020 is the result of outliers.

Figure 1 shows the distribution of the amounts donated on a yearly basis for 2018 and 2020. For 2018, the mode was ten euros. In 2020, the mode was 20 euros. In 2018, most people donated once a year (56%), followed by donating two or three times a year (37%). We found a similar distribution in 2020: most people donated once a year (64%), followed by donating two or three times a year (28%).

Unfortunately, we did not measure the donation amount via a door-to-door collection on year basis. We did measure if someone donated via a door-to-door collection in the two weeks preceding the survey, and if they did how much they donated (see Table 2). On average, in 2018 participants donated 4.11 euros ( $SD = 5.35$ ) and 4.16 euros in 2020 ( $SD = 3.73$ ), an Independent Sample T-Test shows that this resembles an insignificant increase of .6% ( $t(176) = -.06, p = .955$ ). This does not support our door-to-door amount hypothesis (h1b), stating that the amount would not decrease between 2018 and 2020.

Table 2. Giving behavior in the two weeks preceding the questionnaire, for 2018 and 2020

Type of giving	Asked to give		Donated		Average amount <sup>a</sup>	
	2018	2020	2018	2020	2018	2020
Online	3%	4%	1%	2%	15.15 ( <i>SD</i> = 5.05)	18.77 ( <i>SD</i> = 22.18)
Door-to-door	27%	17%	19%	10%	4.01 ( <i>SD</i> = 4.97)	4.16 ( <i>SD</i> = 3.73)

<sup>a</sup> Among donors only

Note: the samples size for the average donation amounts for online giving is small and only shown to demonstrate that online participants donated higher amounts.

Another interesting finding, reported in Table 2, is that participants indicate that they were not asked more often to donate online in 2020, compared to 2018.

### 5.2 Characteristics of crowdfunding and door-to-door donors

As earlier studies focussed on reporting socio-demographics of donors mostly focus on door-to-door collections (Bekkers & Wiepking, 2011), we report the participation rate per characteristic for crowdfunding and door-to-door giving.

Table 3 presents the percentage of donors per socio-demographic variable. We conducted four binomial logistic regression analyses to test if the differences per year and donation method were significant. First, we discuss giving via crowdfunding. We found similar results in both years: age is negatively correlated with giving via crowdfunding and males were less likely to donate via crowdfunding. The highest education- and income-category are positively correlated with giving via crowdfunding. However, including social media presence as a control variable diminishes the effect of age. Thus, with crowdfunding, individuals active via social media are more likely to give than those not active via social media.

For door-to-door giving we see that age is positively correlated. Meaning that older donors are more likely to donate. Income and education are also positively related with giving. Males are less likely to give via a door-to-door collection.

We explored the overlap between people giving via crowdfunding and people giving via door-to-door collections. For both years, about one in ten give both via crowdfunding and door-to-door collections (see Figure 2).

Table 3. Giving via crowdfunding or door-to-door giving per socio-demographic characteristic, for 2018 (n = 1.201) and 2020 (n = 924).

	Crowdfunding				Door-to-door					
		2018		2020		2018		2020		
	%	Sig. dif.	%	Sig. dif.	%	Sig. dif.	%	Sig. dif.		
Key socio-demographics of giving	Age: 35 or younger	14	/	20	/	64	/	58	/	
	Age: 35-55	11	0	15	0	67	0	56	-	
	Age: 55 or older	9	-	5	(-)	74	+	65	(+)	
	Female	13	/	17	/	71	/	62	/	
	Male	9	-	8	-	66	-	59	(-)	
	Education: low	8	/	8	/	66	/	49	/	
	Education: medium	9	0	10	0	70	(+)	63	+	
	Education: high	16	(+)	17	+	71	(+)	65	+	
	Income: 1 <sup>st</sup> quintile	9	/	16	/	66	/	46	/	
	Income: 2 <sup>nd</sup> quintile	7	0	8	(-)	71	+	58	+	
	Income: 3 <sup>rd</sup> quintile	11	0	9	0	75	+	69	+	
	Income: 4 <sup>th</sup> quintile	19	(+)	18	(+)	72	(+)	70	(+)	
	Control variables	Home owner: no	9	/	14	/	60	/	49	/
		Home owner: yes	13	0	12	0	75	+	68	+
Children: no		11	/	14	/	68	/	67	/	
Children: yes		11	0	12	0	71	0	50	-	
Married: no		11	/	12	/	59	/	53	/	
Married: yes		11	0	12	0	73	+	66	0	
Religious: no		11	/	15	/	66	/	57	/	
Religious: yes		11	0	11	-	79	+	73	+	
Social media: no		--	--	2	/	--	--	52	/	
Social media: yes		--	--	14	+	--	--	62	0	
R square	.06		.15		.08		.15			

-- Not measured

Note: To determine if there is a differences between groups, we analysed the data with four binomial logistic regression analyses (one per year and giving method). For each variable (e.g. age), we took the first category as the reference group (represented by a /), to which

we compare the other groups. When a group significantly differed from the reference group we represent it with a + if the difference is higher and a - if it is lower than the reference group (see sig. dif.). When the difference was significant but the relationship disappeared when other characteristics were taken into account this is shown with a () around the + or -.

Income reports the gross annual household income, measured via an interval variable and then computed into quantiles. The first quantile includes incomes up to €26,300. The second between €26,300 and €43,500. The third between €43,500 and €73,000. The fourth included incomes between €73.00 and €145.400.

Married is coded as 0 for those who are not married or living together and 1 for those married and/or living together

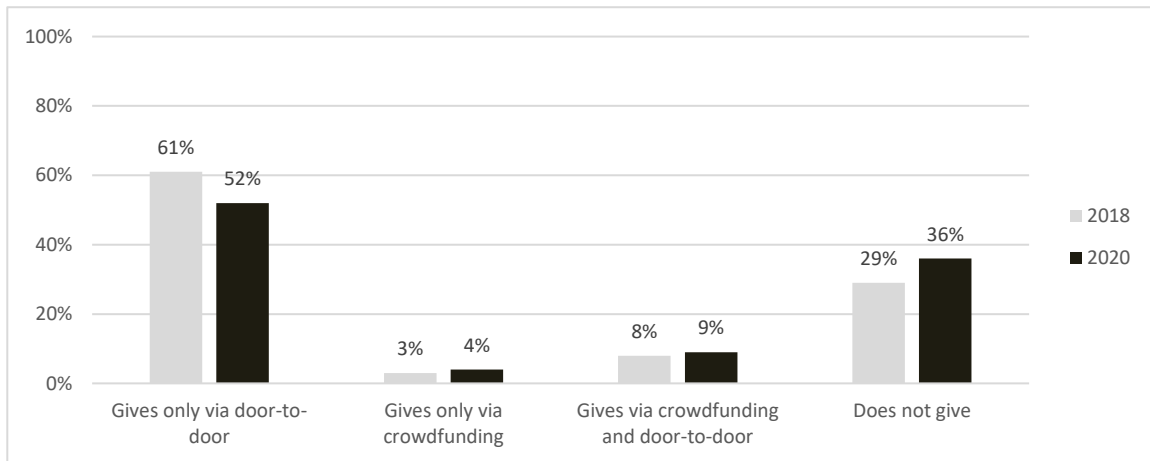


Figure 2. Percentage of individuals who give via (1) crowdfunding OR/AND (2) door-to-door collections, for 2018 (n = 1.201) and 2020 (n = 924).

### 5.3 Crowdfunding donors are more often represented on social media than non-donors

In our social media hypothesis (H3), we state that being active on social media is positively related with participating via crowdfunding. Overall, a large percentage of the participants is active on social media on a yearly basis (86%). Most participants who donated via crowdfunding were also active via social media (12%) and only 2% of the donors was not active on social media. Being active on social media, regardless of the number of times, is positively related with crowdfunding participation,  $\chi^2(1, N = 924) = 14.69, p < .001$ . As a next step we compared those active multiple times a day (50%) with the rest. Donors are more often active via social media (17%), than not active via social media (9%). Being active on social media multiple times a day is also positively related with crowdfunding participation,  $\chi^2(1, N = 924) = 21.58, p < .001$ . This confirms our social media hypothesis: being active on social media is positively related with donating via crowdfunding.

Next, we explored social media activity per media platform. As shown in Table 4, in terms of activity via a social media platforms, Facebook is most popular: 66% of the participants is active via Facebook. Overall, we found a positive relation between social media activity and giving via crowdfunding, for all platforms. However, the positive relationship between being active on LinkedIn and crowdfunding participation was only marginally significant,  $\chi^2(1, N = 924) = 3.19, p = .074$ .

Table 4. Active via social media and crowdfunding participation, in 2020 (n = 928)

Platform	Social media: yes	Crowdfunding: yes		X <sup>2</sup>	p value
		Social media: yes	Social media: no		
General	86%	14%	2%	14.69	<.001
Facebook	66%	15%	7%	13.41	<.001
YouTube	56%	16%	8%	13.19	<.001
Instagram	37%	21%	8%	35.17	<.001
LinkedIn	33%	15%	11%	3.19	.074
Twitter	16%	22%	11%	14.39	<.001
TikTok	6%	28%	11%	16.76	<.001
Snapchat	7%	21%	12%	4.48	.034

Finally, we explored being active via social media multiple times a day and giving per media platform. As Table 5 shows, being active multiple times a day on social media and crowdfunding participation is positively related for the following platforms: Facebook, Instagram and Twitter. The positive relationship for YouTube and LinkedIn were not significant. While the relation between TikTok and Snapchat seems positive, the sample size was below 10 for one of the categories and thus too small to test with. The largest difference between social media on a daily basis use versus no social media use on a daily basis was found for Instagram.

Finally, we explored the relationship between age and social media use. The percentage of individuals active via social media was highest among the group aged 35 or younger (99%), 92% among the group aged 35-55, and 78% among the group aged 55 or older. A OLS regression with dummy variables for the different age groups, using age 35-55 as a reference group, shows that the negative correlation between age and social media activity is significant for the group aged 55 or older:  $b = -.21$ ,  $n = 924$ ,  $p < .001$ . The negative correlation between the age group 35-55 was only marginally significant ( $b = -.07$ ,  $n = 924$ ,  $p = .057$ ). Appendix A reports the percentage of donors per social media platform by age group.

Table 5. Active via social media multiple times a day and crowdfunding participation, in 2020 (n = 928)

Platform	Social media: yes	Crowdfunding: yes		X <sup>2</sup>	p value
		Social media: yes	Social media: no		
General	50%	17%	7%	21.58	<.001
Facebook	36%	18%	9%	13.41	<.001
YouTube	11%	18%	12%	2.64	.104
Instagram	19%	25%	9%	32.80	<.001
LinkedIn	4%	17%	12%	.75	.386
Twitter	6%	24%	12%	6.63	.010
TikTok	2%	24%	12%	--	--
Snapchat	3%	12%	12%	--	--

-- Sample too small for testing

#### 5.4 The connection with the initiator is important

We expected that crowdfunding would mostly consist of peer-to-peer giving. Knowing the initiator of the project was the most often mentioned argument for giving via crowdfunding: 76% of the participant mentioned that knowing the initiator was the most important reason for giving. Next, 16% mentioned that the project itself was the most important reason. A much smaller group (4%) mentioned that the charity connected to the projects was the most important reason.

In 2020, only a small group of people were asked to give to crowdfunding (20%). Still, being asked to give is positively related with giving,  $X^2(1, N = 924) = 248.23, p < .001$ . Of the participants who were asked to give, actually 47% donated, while this was only 4% among those not asked to give. This means that while the group being approached to give via crowdfunding is small, asking matters.

Among those asked to give, most were approached via Facebook (55%) or WhatsApp/phone (17%). Only 18% was asked face-to-face. Twitter (2%) and LinkedIn (1%) were hardly used to approach a potential donors. A total of 8% was asked via an email.

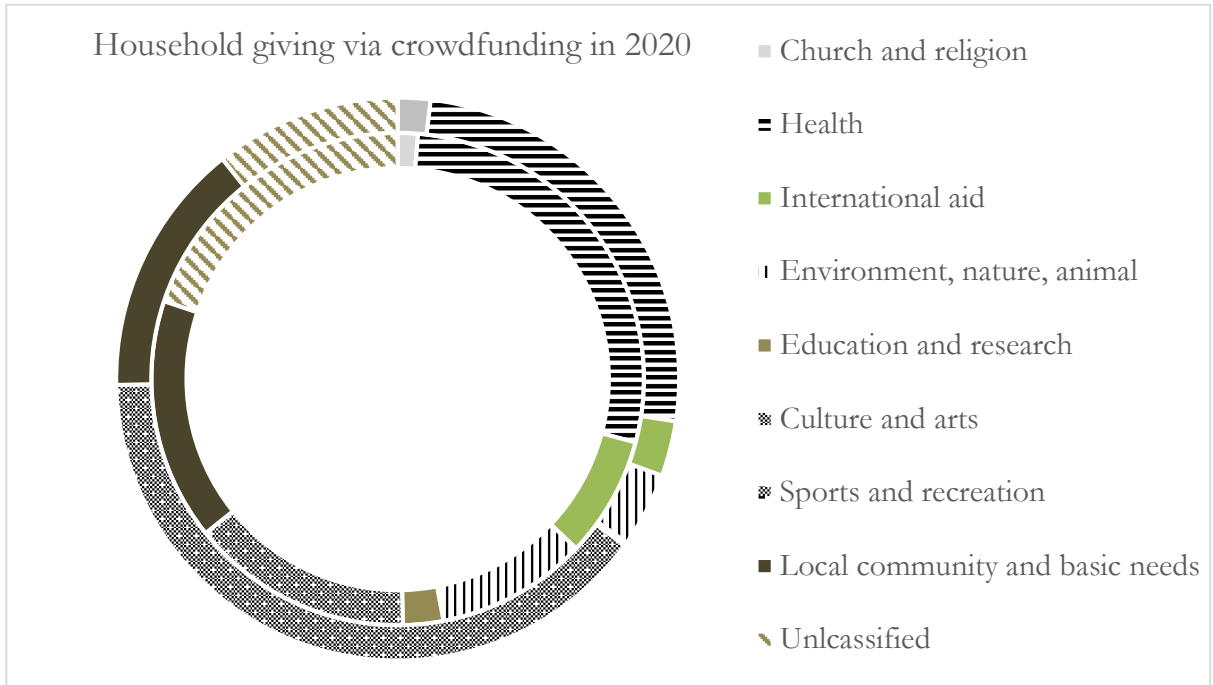
Most people were asked by an acquaintance (75%). Only 9% was asked by a charity, 10% by a local individual who was not an acquaintance, 2% by a company and 4% by an individual who was not an acquaintance or a local, in other words a stranger. This confirms our initiator hypothesis (H4a), in which we hypothesized that the initiator is more often an acquaintance of the donor than a charity, as it would be with door-to-door collections.

Most people gave to an acquaintance (44%), like a friend, family member or colleague. Two in ten (20%) gave to a charity or someone connected to a charity. An additional 8% gave to someone working at a company and 15% gave to a local individual, who was not an acquaintance. A total of 15% gave to an individual who was not an acquaintance or a local, in other words a stranger. This confirms our end-beneficiary hypothesis (H4b), in which we hypothesized that the end-beneficiary is more often an acquaintance of the donor than a charity, as it would be with door-to-door collections. Moreover, the initiator and end-beneficiary are not always the same, for 40% of the donations the initiator was not the same as the end-beneficiary.

### *5.5 Culture and health-related goals are popular with crowdfunding*

In 2020, in terms of the number of donations per goal in relation to the total number of donations assembled via crowdfunding, health-related projects were most popular: 28% of the total number of donations were donated to health-related projects (see the inner-circle in Figure 3). In comparison, not focusing on crowdfunding, health related goals are also most popular while culture is not (Van Teunenbroek & Bekkers, 2020). The category 'unclassified' is also popular, which compromises of goals that support multiple categories, for instance health related projects outside of the Netherlands (i.e. health and international aid).





Note: The total participation rate is calculated by dividing the number of donors per goal by the total number of donors to crowdfunding projects. The total amount is calculated by dividing the total amount per goal by the total amount assembled via crowdfunding projects.

Figure 3. The percentage a certain goal adds in terms of the total assembled via crowdfunding ( $n = 84$ ), for 2020. The inner-circle reports the number of donations per goal in percentage, while the outer-circle reports the average amount per goal in terms of the percentage.

In terms of the average donation amount per goal, culture and art related projects make up for the largest part: 40% of the donation amount was donated to culture and art related projects (see the outer-circle of Figure 3). Secondly, health-related projects make up for 25% of the total amount assembled via crowdfunding.

## 6.0 Discussion

Since 2020 charities increasingly focus on online fundraising methods like crowdfunding. Using the Dutch philanthropic crowdfunding sector as a case study we show several new findings, presented below.

Contribution and finding 1 is that giving behaviour during the COVID-19 pandemic did not increase online donations via crowdfunding. As a result of the COVID-19 crisis, the percentage of donors via door-to-door giving was expected to decrease while online giving, like crowdfunding, was expected to increase. However, our data do not fully support this proposition. While door-to-door giving indeed decreased (from 69% in 2018 to 61% in 2020), giving via crowdfunding remained the same: 11% in 2018 and 12% in 2020. In addition, while the donation amount in 2020 (49 euro) was higher than in 2018 (43 euro), the difference was not significant. The amount donated via door-to-door collections remained the same: four euros. We expected it to increase, but the amount remained the same. It seems that the norm to give four euros is so strong, that regardless of

the higher need for help, donors donated similar amounts as before. Another option is that there was no perceived higher need for help.

Contribution and finding 2 is that donors via crowdfunding are often younger individuals while with door-to-door giving they are often older individuals. However, the relationship between age and crowdfunding disappears if social media activity is included. Thus, next to measuring the key socio-demographics (Bekker & Schuyt, 2012), researchers should also focus on social media activity while trying to predict who gives via crowdfunding. Facebook seems to be the most important social media platform. While most individuals are not asked to give, and thus give without being asked, being asked to give is positively related with giving via crowdfunding. Being asked to give has been identified as one of the main reasons to give in offline giving (Bekkers & Wiepking, 2011). Based on this, we expect that the participation rate can be increased by increasingly asking people to give to a crowdfunding projects.

Regarding gender, income and education we found similar results for crowdfunding as with door-to-door giving: donors are more often female, higher educated and have a high income than non-donors. In this, we add to the literature since characteristics of individuals giving via crowdfunding are hardly examined, as most papers focus on data provided by platforms (Kuppuswamy & Bayus, 2018) which are not allowed to share personal information. In addition, our data shows that about one third of the donors donating via crowdfunding do not donate via door-to-door giving. This in combination with the finding that younger individuals are more likely to donate via crowdfunding suggest that a new group of donors is active via crowdfunding, compared with door-to-door giving. We advise researchers to examine this further, focusing on younger group of individuals by for instance adding an oversample of participants aged 19-35.

Contribution and finding 3 is that we explored the relationship with the initiator and end-beneficiary. We expected that crowdfunding was mostly peer-to-peer giving. Indeed, as our data shows, individuals mostly give to projects related to an acquaintance. For instance, 75% of the projects supported were initiated by an acquaintance, and in 44% the end-beneficiary was an acquaintance. In comparison, only 9% was asked by (someone connected to) a charity and in 20% the end-beneficiary was a charity. Based on this, we also conclude that charities have to compete with private individuals.

### *6.1 Limitations and further research*

While our study includes information about giving behavior before the COVID-19 crisis and during the COVID-19 crisis, it would be interesting to add a third wave namely after the COVID-19 crisis. We know from an earlier studies focussed on giving behavior and the financial crisis that started in 2007 that the effect comes later (Bekkers, 2009; Van Teunenbroek & Bekkers, 2021). The study describes that in the first year after the crisis, there was no change in giving behavior. However, three years after the crisis, charities witnessed a drop in the percentage of donors.

A clear limitation of our study is that we only focus on 'the giving side' and provide no insights about 'the receiving side'. It would be interesting to examine the viewpoint of charities. For instance, how many projects do they start and how many are successful?

Our findings are based on one country: the Netherlands. This limits the generalization to other countries and more research is needed to determine if our findings are country specific. In addition, we focus on data assembled via survey, which limits causal statements. Therefore, we cannot say if the change in donation behavior is a result of the COVID-19 pandemic, we can only describe the behavior before and during the COVID-19 pandemic.

### *6.2 Practical implications*

Our findings suggest that younger individuals are more likely to donate via crowdfunding than older individuals. We perceive this finding as hopeful for the sector facing a decrease in their donor pool, since this could suggest that crowdfunding can be used to attract a new group of donors less represented among traditional methods like door-to-door collections: participants below 35. However, and this is important, we also found that charities have to compete with private individuals and charities make up for a small percentage of end-beneficiaries. The COVID-19 pandemic affects many, also the philanthropic sector. While the percentage of donors via door-to-door giving decreased, the percentage via crowdfunding remained unaffected. We also found that people were not asked more often to donate online during COVID-19 than before, which again gives hope that if charities become more active in asking individuals to give via crowdfunding, the percentage of donors will increase, since being asked to give is effective.

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## Appendix A

Percentage of donors per social media platform by age group.

### Age below 35 years

Platform	Social media: yes	Crowdfunding: yes		X <sup>2</sup>	p value
		Social media: yes	Social media: no		
General	99%	20%	0%	--	--
Facebook	73%	20%	19%	.002	.964
YouTube	73%	24%	8%	4.04	.044
Instagram	71%	23%	11%	2.84	.092
LinkedIn	49%	19%	21%	.07	.791
Twitter	18%	22%	19%	.13	.721
TikTok	19%	24%	19%	.36	.548
Snapchat	29%	26%	17%	1.24	.266

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### Age between 35 and 55 years.

Platform	Social media: yes	Crowdfunding: yes		X <sup>2</sup>	p value
		Social media: yes	Social media: no		
General	92%	16%	4%	--	--
Facebook	70%	18%	8%	5.22	.022
YouTube	61%	16%	13%	.73	.392
Instagram	44%	22%	9%	11.16	<.001
LinkedIn	45%	18%	13%	1.30	.255
Twitter	20%	26%	12%	8.23	.004
TikTok	8%	29%	13%	4.38	.036
Snapchat	6%	18%	15%	.13	.720

-- One or more cells had a cell count less than 5

### Age above 55 years

Platform	Social media: yes	Crowdfunding: yes		X <sup>2</sup>	p value
		Social media: yes	Social media: no		
General	78%	16%	4%	--	--
Facebook	61%	18%	8%	5.22	.022
YouTube	47%	16%	13%	.73	.392
Instagram	24%	22%	9%	11.16	<.001
LinkedIn	21%	18%	13%	1.30	.255
Twitter	13%	26%	12%	8.23	.004
TikTok	1%	x	x	--	--
Snapchat	1%	x	x	--	--

x not enough cases

-- One or more cells had a cell count less than 5