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RESEARCH ARTICLE

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The more you know, the more you give: Influence of online disclosure on European community foundations' donations

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Abstract

Competition is high in the charitable contributions market, and donors demand to know how nonprofit organizations use the money they receive. In scrutinizing the variables that affect the capacity of nonprofits to attract donations, previous research has highlighted the positive influence of the amount of financial and performance information that nonprofits disclose through their websites. This study explored whether the depth of the organizations' online disclosures also affects these donations. In line with existing studies on regression-based economic models of giving, this study considered community foundations—focusing on the United Kingdom and Italy—and its results indicated that managing the depth of the information provided through financial reports can influence donors' sensitivity and willingness to donate.

KEYWORDS

community foundations, donors, fundraising, nonprofit, web accountability

1 | INTRODUCTION

Donations are critical for the revenue that nonprofit organizations require to realize their social mission; thus, the competition in the market for charitable contributions is high (Alhidari, Veludo-de-Oliveira, Yousafzai, & Yani-de-Soriano, 2018), especially for younger organizations, which often spend their start-up years aggressively attracting different types of funding (Lee, Pendharakar, & Blouin, 2012; Millesen & Martin, 2014). This competition particularly characterizes community

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foundations (CFs). These organizations—which, in the past, were often considered the "poor cousins" in the family of philanthropic organizations (Hodgson & Knight, 2010)—are currently among the fastest-growing segments of the nonprofit sector (Harrow, Jung, & Phillips, 2016). The first community foundation, the Cleveland Trust Company (Ohio), was established in the United States in 1914. Since then, these organizations have increased to 1,874 CFs spread worldwide, with 66% created in the past 25 years, and they account for a combined grant-making figure of US$5,028 million. Although these organizations differ slightly, depending on the country in which they are established (Guo & Lai, 2019), CFs are grant-making charities that serve a locality's philanthropic needs, and typically, their funds comprise donations from many donors for that locality (Carman, 2001; Community Foundation Atlas, 2014; Graddy & Morgan, 2006; Harrow et al., 2016; Jung, Harrow, & Leat, 2018; Ostrower, 2007). Thus, to raise funds successfully, CFs must be accountable because "people don't feel able to give money to an institution they don't know and don't understand" (Worldwide Initiatives for Grantmaker Support, 2018, p. 29). Donors must rely on external communication channels for information because they are usually not directly involved in the management of the charity. In particular, they view websites in search of high-quality financial and performance information that would help them make donation decisions (Lee & Blouin, 2017).

The diffusion of internet-based technologies offers organizations considerable potential for disclosing timely and adequate information to a wide range of stakeholders at a limited cost (Ingenhoff & Koelling, 2009; Kang & Norton, 2004; Saxton & Guo, 2011, 2012), given that a single website can have multiple sections, each targeted to a different audience (Esrock & Leichty, 2000). Several studies—that have mostly focused on the United States context and have rarely considered the case of CFs—have highlighted the role of the web in fostering charitable contributions. When examining the relationship between online accountability and charitable giving, they have usually focused on the magnitude of web disclosure—that is, the amount of disclosure items that such organizations provide to donors. However, these studies have not considered the depth of this web disclosure—that is, the level of detail of the content targeted at donors (Beck, Campbell, & Shrives, 2010).

Hence, the present study aimed to contribute to filling this gap in the literature by exploring the relationship between the depth of website disclosure and the level of donations in the European context, because the donations to European CFs have experienced the highest rate of growth in numbers over the past 25 years (Knight, 2017). In particular, given that the organization's age can influence its ability to attract charitable contributions (Millesen & Martin, 2014; Saxton & Guo, 2011; Tinkelman & Mankaney, 2007), this study considers 144 United Kingdom and Italian CFs, because these two countries have a significant number of both old and young CFs. First, this study undertakes a content analysis of the CFs' websites to understand the depth of the financial and performance information these organizations provide online (Saxton & Guo, 2011). Second, moving from the regression-based economic model of giving, this study investigates the relationship between the depth of disclosure and the amount of donations received. The analyses findings provide some insights about the disclosure levers that can be used to increase the capacity of a CF to compete in the charitable donations market.

2 | LITERATURE REVIEW

2.1 | Web accountability to donors

Accountability to stakeholders, and to donors in particular, is crucial for all nonprofits—including CFs—that aim to build legitimacy and attract charitable contributions by providing

signals of good housekeeping and by demonstrating their capacity to act in the interest of the community (Cabedo, Fuertes-Fuertes, Maset-Llaudes, & Tirado-Beltrán, 2018; Conway, O'Keefe, & Hrasky, 2015; Levine Daniel & Eckerd, 2019; Murtaza, 2012). Given that nonprofits interact with a wide range of stakeholders who have varying information needs (Connolly, Hyndman, & McConville, 2013; Dhanani & Connolly, 2012), these organizations are expected to be accountable to multiple actors and on different aspects simultaneously (Ebrahim, 2010). To meet this expectation, these nonprofits discharge a composite mix of accountability as regards their finances, governance, performance, and mission, both downward to beneficiaries and upward to donors, through a variety of modes and mechanisms (Ebrahim, 2009; Lee et al., 2012).

The expansion of the internet has helped nonprofits to reach their stakeholders directly, both in terms of providing information about the organization and in engaging in dialogue with the public (Ingenhoff & Koelling, 2009; Kang & Norton, 2004; Rossi, Moggi, Pierce, & Leardini, 2018; Saxton & Guo, 2012; Saxton, Neely, & Guo, 2014). Online accountability is defined as an organization's voluntary disclosure of financial and performance information on its public website (Lee & Joseph, 2013) and has become the prime vehicle through which nonprofits communicate with stakeholders (Dumont, 2013; Kirk & Abrahams, 2017). Many determinants, such as organizational size and age, influence the adoption of web-based accountability practices (Lee & Blouin, 2017; Saxton & Guo, 2011). However, the empirical evidence is inconclusive on this point. Certain studies have found a positive relationship between web-based disclosure and organizational size and age (Gálvez Rodríguez, Pérez, & López Godoy, 2012; Slatten, Guidry Hollier, Stevens, Austin, & Phillips Carson, 2016), whereas others have revealed that smaller and younger organizations are more efficient than larger and older ones in implementing web-based accountability practices (Lee et al., 2012).

The content that organizations disclose online is diverse. Nonprofits are no longer only asked to account for their finances, but are also required to detail their outputs and outcomes; thus, researchers have identified two core dimensions of web-based disclosure: financial and performance disclosure (Brinkerhoff, 2001; Dumont, 2013; Lee et al., 2012; Lee & Joseph, 2013; Saxton & Guo, 2011). Financial disclosure relates to information that is useful for assessing the overall financial health of an organization and its efficiency in developing its activities. Organizations usually discharge this information through several disclosure items, such as annual reports and audited financial statements. Conversely, performance disclosure refers to goal- or outcome-oriented information and includes information regarding the organization's mission and goals and reports on the outcomes it has achieved through its programs, projects, and services. Information on performance signals effectiveness and provides a tool for evaluating how effectively an organization is achieving its social mission. Analyses of website content have revealed that organizations usually provide information about their finances, history, goals, and mission and do not always include disclosure items focusing on their outcomes or broader community effects (Kang & Norton, 2004; Lee et al., 2012; Saxton & Guo, 2012).

Further, the web has become both the public face of nonprofits and a tool for managing inclusive and intense public relationships, and hence, a relevant stream of research has focused on accountability to donors, because donors can provide or withhold the money necessary for a nonprofit's survival (Candler & Dumont, 2010). According to Candler (2001), donors are mostly interested in information on financial results, goods/services provided, and the organization's mission. Annual financial reports are the most common formal tool that organizations use to demonstrate accountability to stakeholders. It is important that a nonprofit shares financial information for communicating its financial achievements, so that donors can use this

information to monitor its activity and to understand whether it has channelized their donations appropriately (Crawford, Morgan, & Cordery, 2018; Dhanani & Connolly, 2012). Thus, although accountability for finances is important, its role should be not overstated, because accountability for fulfilling the mission is also of primary importance (Candler & Dumont, 2010). Disclosure of mission goals, outputs, and outcomes and the possibility of evaluating their congruence with specific measurable targets related to the organization's mission are important for stakeholders providing funds (Hyndman & McConville, 2018). Donors consider information about a nonprofit's mission, goals, programs, and outcomes more than they consider traditional financial information when making donation decisions (Connolly & Hyndman, 2013; McDowell, Li, & Smith, 2013). Despite this, nonprofits' disclosures on mission-centered performance are limited, perhaps because they experience difficulties in setting targets and measuring achievements against them (Candler, 2001; Hyndman & McConville, 2018). Further, nonprofits rarely offer comparisons with prior information on their actions, thereby making it difficult for users to understand the evolution of the disclosure (Connolly & Dhanani, 2009; Hyndman & McConville, 2018).

2.2 | Relationship between web-based disclosure and donations

Although several studies have examined the potential of the web for providing accountability to donors, researchers have only recently begun analyzing the relationship between web-based disclosure and charitable giving in a manner that adds to the debate on online accountability. Given that websites facilitate the dissemination of information, they are expected to affect charitable contributions (Saxton & Wang, 2014). Waters (2007) analyzed the use of the internet for fundraising purposes and found that nonprofits usually present their annual financial reports on the web, along with their organizational goals and mission statements. Sargeant, West, and Jay (2007) found that the fundraising performance of U.K. nonprofits is directly related to online disclosures about how they employed their funds. Atan, Zainon, and Wah (2012) confirmed, in the Malaysian context, that the extent of financial information disclosure is significantly related to the total donations that charitable organizations receive. Similarly, Blouin, Lee, and Erickson (2018) found a strong correlation between donations and the disclosure of financial information, independent of other variables, such as the organization's age, size, and fundraising expenditure, and concluded that voluntary web disclosure is a controllable signaling and marketing tactic for organizations. Conversely, other studies have not identified a significant relationship between donations and disclosure, and have recommended that organizations should develop educational campaigns to inform donors about the increasing accessibility of information and the benefits of using it (Haski-Leventhal & Foot, 2016).

When investigating how internet disclosure is related to the amount of donations that an organization receives, some studies have based their analyses on the economic model of giving that Weisbrod and Dominguez (1986) proposed. The original model posits that the level of charitable contributions is a function of the age of the organization, the costs of raising funds, and the price of donations. Age may positively affect donations because of reputation effects because nonprofits need time to establish themselves with donors and achieve recognition (Tinkelman & Mankaney, 2007). Total fundraising expenses are positively related to total contributions because the first critical step to cultivating a donation is ensuring that donors know that a nonprofit exists (Trussel & Parsons, 2008). Conversely, donors may view organizational expenditure on fundraising as a diversion of resources from programs, thus increasing the

perceived price of program spending (Ashley & Faulk, 2010; Gneezy, Keenan, & Gneezy, 2014). Lastly, donors care about the price of their contributions because they want their donations to maximize charitable output (Wong & Ortmann, 2016). To gain better evidence of the factors that affect donations, Jacobs and Marudas (2009) suggested that the model should consider the combined effect of price and administrative expenses because this approach reduces the problem of omitting correlated variables of efficiency/inefficiency.

Prior studies have often found that administrative expenses have a negative impact on charitable contributions. Donors prefer their donations being spent on projects that create impact rather than on administrative functions, and hence, they tend to reward organizations that report lower administrative costs with larger charitable contributions (Ashley & Faulk, 2010; Gneezy et al., 2014; Jacobs & Marudas, 2009; Tinkelman, 1999; Tinkelman & Mankaney, 2007; Weisbrod & Dominguez, 1986). Moreover, donors often consider these expenses a signal of organizational inefficiency (Lecy & Searing, 2015; Roesner, 2014). Some researchers who hold that administrative costs enhance the capacity of the organizations to do their work have questioned this view (Bowman, 2006). Although nonprofits are increasingly under pressure to spend less on overheads and more on direct program costs, shortages in the administrative expenses can cause managers to under-invest in key physical, technological, and human capital assets, and thus fail to build productive capacity and to sufficiently support overall infrastructure, which ultimately undermines the organization's efforts to serve charitable causes effectively (Coupet & Berrett, 2019; Garven, Hofmann, & McSwain, 2016; Gneezy et al., 2014; Hager & Flack, 2004; Lecy & Searing, 2015).

Some extensions of Weisbrod and Dominguez's (1986) model have incorporated more variables to measure the effect on donations received of the disclosures that nonprofits voluntarily disseminate on their websites. Gandía (2011) studied 80 Spanish nongovernmental organizations for development and found that the quantity of items they disclosed on the internet encouraged donors to give them more funds in the subsequent year. Saxton et al. (2014) tested the effects of the annual report, other financial information, and performance disclosure on charitable giving to U.S. nonprofits, and found a positive relationship between the number (magnitude) of disclosure items provided through the websites and the levels of future donations. Harris and Neely (2018) confirmed that transparent organizations—that is, those providing financial and nonfinancial information that exceeds mandatory disclosure requirements—accrue more in contributions than do organizations delivering only basic information on their profile pages.

A common feature of these studies is that they focused on the quantity of information disclosed on the web. In other words, they considered disclosure in terms of the presence or absence of items targeted at donors. However, they disregarded the depth of the content disclosed through each item in terms of the level of detail. Thus, researchers have called for further studies that are not limited to classifying information as either disclosed or nondisclosed (Hummel & Schlick, 2016; Saxton et al., 2014). A finer way to measure online disclosure involves using "a qualitative scale, capable of describing the level of information detail contained in each [...] piece of information" (Beck et al., 2010, p. 210). According to this scale, more detailed information entails deeper disclosure. Information that simply mentions facts has a lower explanatory potential than does a narrative or numerical content. Conversely, disclosures containing comparative or contextualized information allow increased in-depth knowledge of organizational goals, decisions, and results (Beck et al., 2010). Illuminating the level of detail that characterizes an organization's web-based accountability reveals the potential to gather information on both the depth and magnitude of this information. Indeed, because an analysis

cannot measure the depth of information unless such information has been disclosed, making assessments regarding the quality of disclosure in terms of its depth automatically entails appreciating the presence or absence of online information.

In this regard, previous studies have highlighted that, unlike organizations that disclose less information, those that disclose more information through their websites signal to donors that they are transparent and accountable (Atan et al., 2012; Blouin et al., 2018). In return, donors are willing to pay for the information received, in the form of future increased charitable contributions (Gandía, 2011; Saxton et al., 2014). By assessing disclosure in terms of depth of information (Beck et al., 2010), we hypothesize that:

H1 The depth of online disclosure is positively associated with the level of future donations.

When ascertaining the types of information that are relevant in influencing the level of charitable contributions, existing studies on the regression-based economic model of giving have considered the role of both financial and performance information. Gandía (2011) found that the amount of general information (such as that about mission, vision, values, and outcomes) and financial information (e.g., financial data, annual financial reports, and budgets) is positively associated with the level of contributions that an organization receives in the subsequent year. Harris and Neely (2018) confirmed that providing information on financial results contributes to greater future donations. Saxton et al. (2014) considered separately the role of the annual report from that of the other financial disclosure items provided online. They found that annual reports and the magnitude of disclosures on organizational performance were both associated with high levels of charitable contributions, whereas disclosure on other financial items not included in the annual report was not. Based on this rationale, we investigate whether the level of detail in the annual financial report, the financial disclosure items—such as, investment policies, funds held for grant-making purposes, and calls for grants—provided in addition to those available in the annual report and performance disclosure have a role in enhancing donations. Thus, we test the following hypotheses:

H2 The depth of online annual financial report disclosure is positively associated with the level of future donations.

H3 The depth of the online financial disclosure on other items concerning investment policies, funds, and calls for grants is positively associated with the level of future donations.

H4 The depth of online performance disclosure is positively associated with the level of future donations.

3 | RESEARCH METHODOLOGY

3.1 | Sample

Given that the age of an organization can affect the level of charitable contributions (Saxton & Guo, 2011; Tinkelman & Mankaney, 2007; Trussel & Parsons, 2008; Zappalà & Lyons, 2006), to test the relationship between the depth of website disclosure and the level of donations, we chose to focus on United Kingdom and Italian CFs surveyed by the Community Foundations

Atlas. Unlike other countries in Europe (such as Germany and France) where the experience of CFs traces back to the second half of the 1990s, Italy and the United Kingdom have hosted some of the first examples of CFs in Europe, dating back to the 1940s and 1960s, respectively. As a result, to date, these two countries have CFs of different ages—both old and young (that is, those less than 10 years old). Based on a population of 204 CFs in the United Kingdom and Italy in 2015 and 2016, after we removed 26 organizations without a website and 34 organizations with missing online information and financial data, our final sample comprised 144 organizations.

3.2 | Data collection and analysis

We undertook the analysis between 2015 and 2017. We derived data on web disclosure from a content analysis (Krippendorff, 2013) of the websites of the 144 CFs included in the final sample by considering information disclosed in both 2015 and 2016. We used the Consolidated Narrative Interrogation (CONI) method (Beck et al., 2010), because it enables the exploration of web disclosures from a mechanistic perspective (measuring the volume of information provided), as well as an interpretative perspective (assessing the depth of the information provided). According to the CONI method, content analysis entails three main steps:

1 identifying the categories and subcategories of the analysis;
2 measuring the amount of disclosure (magnitude);
3 evaluating the level of detail in the information (depth).

We applied CONI to all material gathered from the websites. In the first step of the analysis, we identified the categories and subcategories of the data collection. Measuring online accountability may be controversial; thus, Saxton and Guo (2011) proposed a framework that categorizes the information provided through the web in two dimensions: financial disclosure and performance disclosure. Financial disclosure refers to the information on financial resources that a nonprofit organization discloses on its website, while performance disclosure refers to the information on the organization's goals and outcomes. The subcategories represent the disclosure items, which we derived from previous studies on the accountability practices of foundations (Rossi et al., 2018) or identified from inductive reading of the data. Although the annual report is a tool that usually provides financial information, we considered it separately from the other financial disclosure items (see Table 1). We made this choice based on previous studies (see Saxton et al., 2014) to allow—as far as possible—increased comparability and an in-depth discussion of our results. Further, we aimed to consider separately the annual report—that responds to a minimum disclosure requirement of the law or regulatory bodies—from other financial information that the CFs may provide (Brinkerhoff, 2001; Saxton et al., 2014).

In the second step, we checked the websites of the CFs for the presence of the aforementioned categories and subcategories. We treated each of them as a distinct dummy variable that equaled 1 when the websites provided the information, and 0 otherwise. Lastly, in the third step of the analysis, we evaluated the depth of information provided through the websites using a six-point scale (from 0 to 5), which described the depth and detail of the information as follows (Beck et al., 2010). No mention of the subcategory was scored 0 points, while issues mentioned with little detail and/or a narrow scope of information received a score of 1. For example, information on projects could be simply offered in these terms: "We have supported small charities

TABLE 1 Categories, subcategories, and coding rules

Categories	Subcategories	Coding rules
Annual financial report		Formal accounts for the results achieved during the past year through asset management and grant-making activities
Other financial disclosure	Investment policies	Policies on asset investments
	Funds	Sums of money made available for a particular grant-making purpose
	Calls for grants	Announcements on funding disbursements and instructions on how to submit applications
Performance disclosure	Priorities and strategic objectives	Foundation's long-term goals and priorities, and policies to achieve them
	Projects supported	Projects realized through the grants awarded
	Impact report	Standalone report accounting for the achievement of the foundation's aims

and voluntary organizations' projects aimed to provide a low-cost alternative to gym membership, accessible particularly to older people to improve health and fitness." On the financial disclosure side, we could find examples of disclosures like this one: "Our investment policy is aimed to achieve an overall return on the investments within the risk appetite set by the trustees and to provide financial returns to support stable and growing grant distribution." The score equaled 2 when narrative disclosures have a greater degree of detail and explanation, yet are without numerical measures, as in this case: "We awarded a grant to support the establishment of three Community Gym Hubs in high-deprivation areas of our region. The roll-out of the Community Gym Hubs will support the community, particularly older people, in accessing low-cost gym activities, which they can use to achieve many benefits. These include improving the health of local community, supplying fitness programs to people on low incomes living in the area, as well as addressing issues of isolation and supporting community cohesion through group activities." The same score was assigned to financial disclosures like this one focused on a CFs' fund: "The Omega fund was established in the early years of our history and enables us to respond to our communities most immediate needs. It is used exclusively for charitable purposes and the Foundation's Trustees have full discretion to ensure funds are directed where they are needed most." According to the scale proposed by Beck et al. (2010), disclosure through numerical elements or quantitative or monetary measures received a score of three because they are considered more easily comparable than merely descriptive information (Liket & Maas, 2015). Examples of numerical disclosures are those provided through the balance sheets or the income statements uploaded on the CFs' websites, as they offer financial quantitative information about assets, liabilities, revenues and expenses through monetary measures. Numerical information can be provided also about performance disclosure items, for example, in these terms: "Throughout the year, we have granted 54 projects that support elderly people." A score of 4 points was assigned to disclosures that included both narrative/qualitative and numerical information, as in this case: "The roll-out of the Community Gym Hubs has supported about 10,000 people, particularly older people (60% of the total), in accessing low-cost gym activities, which have been used for improving health (30% of the beneficiaries), for

supplying fitness programs to people on low incomes living in the area (50%), as well as for addressing issues of isolation and supporting community cohesion through group activities." Similarly, the same score was assigned to financial disclosures, as in this example: "The investment objective is to maximize the total return over the medium and long term, without taking undue risk. Investments are made in a mix of equities (60%), fixed interest securities (19%), and monetary assets (21%). Total investment returns are expected to exceed the Consumer Price Index + 4%." Finally, disclosures that included both narrative and quantitative information, which contextualized the data through year comparisons were rated 5. For example, considering the financial information about the grants, we could find examples like this one: "After an initial grant of 1.1 million euros in 2015, we awarded an additional grant of 500,000 euros this year to support the expansion of the three Community Gym Hubs located in high-deprivation areas of our region." Moving on the performance disclosure side, the previous example could proceed by stating that: "The Hubs have supported more than 45,000 people in three years, particularly older people (whose proportion has increased from the initial 60% to the current 75% of total users), in accessing low-cost gym activities aimed at improving health, fitness, and community cohesion."

To increase reliability, two of the researchers undertook the analysis on each website, and, in case they disagreed, a third researcher acted as the auditor.

3.3 | Model description

To investigate the relationship between donations and web disclosure, this study expanded the economic model of giving (Weisbrod & Dominguez, 1986) by incorporating the effect of the depth of online information on the level of charitable contributions received in the subsequent period. In this manner, we aimed to assess whether the effort in providing transparent information via the web recompenses organizations with increased future donations. For our empirical test, we proposed the following theoretical model:

$$\begin{aligned} lnDonations_{i,t+1} = {} & \beta_0 + \beta_1 lnPrice_{it} + \beta_2 lnAdministrative\ expenses_{it} + \beta_3 lnFundraising_{it} \\ & + \beta_4 lnAge_{it} + \gamma X_{it} + \delta DisclosureDepth_{it} + \varepsilon_{it} \end{aligned} \quad (1)$$

where $lnDonations_{i,t+1}$ is the natural log of subsequent-year charitable contributions; $lnPrice_{it}$ is the price of donations; $lnAdministrative\ expenses_{it}$ measures the cost of administrative activities; $lnFundraising_{it}$ indicates fundraising expenses; $lnAge_{it}$ indicates the age of the organization in years; X_{it} includes size and donor dependence as control variables; and $DisclosureDepth_{it}$ consists of a series of measures of the depth of web-based information.

We measured the dependent variable $lnDonations_{i,t+1}$ as the natural log of subsequent-year charitable contributions. We retrieved data on donations by accessing the annual financial reports for the years 2016 and 2017, which we obtained directly from websites or by request via mail or telephone.

Among the independent variables of the economic model of giving (Weisbrod & Dominguez, 1986), we operationalized $lnPrice_{i,t}$ as the cost to a donor of purchasing one dollar of output for an organization's beneficiaries. We measured it as $\frac{1}{program\ expenses:total\ expenses}$ and it took into account that the nonprofit could devote resources to programs only after incurring expenditures on fundraising and general administration (Trussel & Parsons, 2008; Wong & Ortmann, 2016). In their literature review, Jacobs and Marudas (2009) highlighted a substantial

amount of evidence that shows price is negatively associated with donations to the United States, United Kingdom, and Canadian nonprofits.

Further, we measured $lnAdministrative\ expenses_{it}$ as $\frac{administrative\ expenses}{total\ expenses}$. Prior research that investigated the effect of administrative expenses on donations has provided mixed results (Ryazanov & Christenfeld, 2018). Although some studies have found that administrative expenses decrease charitable contributions (Jacobs & Marudas, 2009; Tinkelman & Mankaney, 2007), others have observed no significant association between the weight of administrative expenses and donations (Frumkin & Kim, 2001). Moreover, recently, some researchers have warned that if nonprofit organizations reduce their investment in administrative capacity, it might negatively affect their ability to collect funds (Burkart, Wakolbinger, & Toyasaki, 2018; Chikoto & Neely, 2014).

Next, $lnFundraising_{it}$ indicated fundraising expenses. Previous studies in the nonprofit field have found that fundraising expenditures positively affect contributions (Frumkin & Kim, 2001; Omura & Forster, 2011; Tinkelman, 1999; Weisbrod & Dominguez, 1986). Caution has been suggested in using IRS Form 990 data for measuring fundraising costs because managers tend to understate them to appear more efficient (Krishnan, Yetman, & Yetman, 2006; Tinkelman & Mankaney, 2007). According to Schubert and Boenigk (2019), who focused on German nonprofits, we considered all expenses associated with raising contributions and general public relations activities as they were listed in the audited annual financial statements.

The variable $lnAge_{it}$ indicated the number of years that a nonprofit had been operational. According to prior studies, because of reputation effects, nonprofits' ability to attract donations improves as they mature (Saxton & Guo, 2011; Tinkelman & Mankaney, 2007; Trussel & Parsons, 2008; Zappalà & Lyons, 2006).

Further, X_{it} included two control variables: size and donor dependence. As a proxy of size, we used the total assets at the end of year (Tinkelman, 1998). We measured donor dependence as $\frac{revenues\ from\ contributions}{total\ revenues}$.

In addition, $DisclosureDepth_{it}$ consisted of four measures of the depth of web disclosure. First, we calculated the index $Annual\ Financial\ Report\ Depth_{it}$ as the level of depth of the annual reports. Second, we calculated a summative index $Other\ Financial\ Disclosure\ Depth_{it}$ as the sum of the level of depth assigned to each of the other financial disclosure subcategories different from the annual report (that is, investment policies, funds held for grant-making purposes, call for grants), as follows: $Other\ Financial\ Disclosure\ Depth_{it} = \sum_{i=1}^{n} Depth\ of\ subcategory_i$. Third, we measured the $Performance\ Disclosure\ Depth_{it}$ index as the sum of the level of depth of performance disclosure subcategories. Specifically, $Performance\ Disclosure\ Depth_{it} = \sum_{i=1}^{n} Depth\ of\ subcategory_i$. In these measures, we evaluated the level of information depth by using a six-point scale ranging from 0 to 5 (Beck et al., 2010). Lastly, we calculated $Total\ Disclosure\ Depth_{it}$ as the sum of $Financial\ Disclosure\ Depth_{it}$, $Performance\ Disclosure\ Depth_{it}$, and $Annual\ Financial\ Report\ Depth_{it}$.

We included a dummy variable in each model to control for the country to avoid the results being biased by country-specific conditions. In line with the literature, we measured the independent as well as control variables in time *t*, with a one-year lag to allow donors time to review and react to the information available to them (Harris & Neely, 2018). We transformed all the monetary values expressed in GBP to euros using the currency exchange rate on February 15, 2019.

4 | RESULTS

4.1 | Website content analysis

The analysis of online disclosure revealed that 87% of the United Kingdom and Italian CFs that the Community Foundation Atlas had surveyed had a website in 2015 and 2016. Of those with a website, 98.1% provided information on financial items (of which 53.5% presented the annual financial report), whereas 96.1% disclosed performance-related issues. Table 2 summarizes the magnitude of the online disclosure for each subcategory considered in the analysis by displaying the percentage of the sample that presented the related information on their websites.

The subcategories most commonly present on the websites were the projects supported and the calls for grants. The CFs also frequently reported information on the funds available for particular grant-making purposes (74% of the sample). More than half of the sample (52%) provided their annual financial report, but only 20.8% offered disclosures on their investment policies. Conversely, from the data, it seems less likely that CFs would share information on their asset investment policies (20.8%), priorities, and long-term goals (31.4%).

According to Saxton et al. (2014) and the measurement rules detailed in the model specification (Section 3.3), we combined the subcategories examined to form four discrete disclosure variables underpinning the multivariate analyses—*Annual Financial Report*, *Other Financial Disclosure*, *Performance Disclosure*, and *Total Disclosure*—that is, the sum of the annual financial report, other financial disclosure, and performance disclosure variables. As specified, for the purposes of our analysis, we measured these variables by focusing on the depth of the information disclosed. Table 3 contains some descriptive statistics for the four disclosure variables and the other variables included in our extended version of Weisbrod and Dominguez's (1986) model. Overall, the values of the mean level of detail of online disclosure were not particularly high and usually scored halfway between the minimum and maximum, thus highlighting the possibility of improving the depth of the annual financial report and financial and performance disclosure.

The zero-order correlation matrix of our model variables we present in Table 4 supports the assertion that the depth of online disclosure was associated with charitable contributions. A significant and positive association existed between the amount of subsequent-year donations and

TABLE 2 Magnitude of financial and performance disclosure subcategories

Subcategories	CFs with some disclosure on the subcategory (%)	Average number of items per CF (SD)
Annual financial report	52.3	
Other financial disclosure	98.1	1.82 (0.88)
Investment policies	20.8	
Funds	74.2	
Calls for grants	87.1	
Performance disclosure	96.1	1.62 (0.85)
Priorities and strategic objectives	31.4	
Projects supported	89.3	
Impact report	48.3	

TABLE 3 Descriptive statistics

Variable	Mean	*SD*	Minimum	Maximum
Donations	1,525,326.63	2,362,890.45	3,993.0	18,183,000.0
Price	2.3	8.34	1	6.8
Administrative expenses	0.22	0.19	0.003	1
Fundraising	142,277.5	189,754,486.0	320.0	1,245,631.7
Age	16.49	9.39	1	56
Size	11,768,124.2	12,310,066.7	51,111.0	87,023,657.0
Donor dependence	0.56	0.23	0.002	0.99
Total disclosure depth	16.46	9.30	0	35
Annual financial report depth	2.47	2.43	0	5
Other financial disclosure depth	7.05	3.95	0	15
Investment policies	0.58	1.31	0	5
Funds	2.82	2.10	0	5
Calls for grants	3.65	1.69	0	5
Performance disclosure depth	6.94	4.29	0	15
Priorities and strategic objectives	0.94	1.65	0	5
Projects supported	3.68	1.77	0	5
Impact report	2.33	2.43	0	5

Note: The values are expressed in euros.

the level of detail of total disclosure, annual financial report disclosure, other financial disclosure, and performance disclosure. Moreover, we found a positive and significant correlation between the depth of total disclosure, annual financial report disclosure, other financial disclosure, and performance disclosure.

4.2 | Regression model results

Table 5 presents the results of a series of regression models on the log of subsequent-year donations. We tested four models on the basis of our extension of the economic model of giving, aiming to incorporate the effect of the depth of disclosure on the level of charitable contributions. We estimated all the reported models by using ordinary least squares (OLS) regression. Interestingly, the control variable for the country was not statistically significant in any model. We performed diagnostic tests to address common concerns regarding violations of key classical linear regression assumptions. The tests indicated homoscedasticity, no multicollinearity (VIFs <4 for Models 1–3 and VIFs <10 for Model 4), and no autocorrelation among the residuals (Durbin–Watson test = 1.962–2.062).

Model 1 incorporates our summative index, *Total Disclosure Depth*, for testing H1 and for verifying whether the depth of online disclosure was positively associated with the level of future donations. The results indicated that, conditional on the control variables included in the model, foundations with a higher level of disclosure depth had a higher level of donations. In detail, CFs having one more point in the *Total Disclosure Depth* score experienced an average

TABLE 4 Zero-order correlation matrix

	1	2	3	4	5	6	7	8	9	10	11
1 Donations	1										
2 Size	.483**	1									
3 Age	.096	.297**	1								
4 Price	−.127	−.088	−.105	1							
5 Administrative expenses	−.082	−.164*	.000	.436**	1						
6 Fundraising	.361**	.558**	.281**	−.057	−.160	1					
7 Donor dependence	.279**	.039	−.192*	.012	−.097	−.006	1				
8 Total disclosure depth	.374**	.498**	.172*	−.187*	−.220**	.322**	.052	1			
9 Annual financial report depth	.236**	.282**	.064	−.116	−.146	.210*	.111	.669**	1		
10 Other financial disclosure depth	.319**	.471**	.161*	−.200*	−.201*	.285**	.002	.880**	.669**	1	
11 Performance disclosure depth	.334**	.428**	.179*	−.133	−.146	.288**	.040	.853**	.499**	.563**	1

Note: Pearson correlation coefficients. *t* statistics in parentheses based on robust standard errors.
*$p < .05$.
**$p < .01$.

TABLE 5 OLS regressions on the log of subsequent-year donations

	Model 1	Model 2	Model 3	Model 4
Constant	1.335 (1.301)	0.625 (1.301)	1.429 (1.236)	1.034 (0.853)
Price	−0.503 (−1.009)	−0.366 (−0.734)	−0.505 (−1.008)	−0.405 (−0.824)
Administrative expenses	2.144* (2.242)	1.949* (2.048)	2.139* (2.226)	1.758 (1.870)
Fundraising	0.290*** (3.417)	0.282*** (3.352)	0.290*** (3.404)	0.280*** (3.374)
Age	0.046 (0.264)	0.15 (0.088)	0.047 (0.267)	0.044 (0.259)
Size	0.419*** (5.721)	0.491*** (5.736)	0.417*** (5.421)	0.479*** (5.560)
Donor dependence	2.445*** (9.381)	2.409*** (9.308)	2.340*** (3.629)	2.035*** (3.086)
Total disclosure depth	0.035** (2.964)		0.032 (1.700)	
Annual financial report depth		0.112** (2.591)		0.257** (3.052)
Other financial disclosure depth		−0.030 (0.368)		0.005 (0.090)
Performance disclosure depth		0.037 (1.626)		−0.075 (−1.455)
Total disclosure depth × donor dependence			0.06 (0.180)	
Annual report depth × donor dependence				−0.259 (−1.855)
Financial disclosure depth × donor dependence				0.041 (−0.440)
Performance disclosure depth × donor dependence				0.187* (2.328)
Country (1 = United Kingdom, 0 = Italy)	−0.167 (−0.862)	−0.128 (−0.648)	−0.173 (−0.836)	−0.145 (−0.746)
Adj. R^2	0.678	0.662	0.678	0.706
F	30.190***	25.620***	20.328***	21.319***

Note: t statistics in parentheses based on robust standard errors.
*$p < .05$.
**$p < .01$.
***$p < .001$.

increase of +3.8% in charitable contributions. This finding means that with the holding price, fundraising, age, and all control variables constant at their means, a CF with a *Total Disclosure Depth* score of 7 points (the lowest percentile of *Total Disclosure Depth*) will have donations of €1,110,211, whereas a CF with a score of 28 points will reach €2,329,456 of charitable contributions. In the model, *Size*, *Fundraising*, *Administrative expenses*, and *Donor Dependence* were significant and positively related to donations, thereby indicating that large foundations with higher donor dependence, fundraising, and administrative costs are able to attract more donations. Thus, the data strongly support H1.

In Model 2, we tested whether the different dimensions of online disclosure played a role in affecting the capacity of CFs to attract subsequent-year charitable contributions. For this, we ran the analyses by replacing *Total Disclosure Depth* with the three disaggregated partial indicators: *Annual Financial Report Disclosure Depth, Other Financial Disclosure Depth*, and

Performance Disclosure Depth. We found that the presence of more detailed information in the annual financial reports was associated with greater levels of subsequent donations, whereas that of the other subcategories of financial disclosure (that is, investment policies, funds, and calls for grants) and performance disclosure were not, even if performance disclosure had a *t* statistic value of 1.3, which was close to the significance threshold. These results supported H2 but did not support H3 and H4. Thus, the annual report depth seemed to be the most important partial indicator of total disclosure able to affect the level of donations. In detail, a one-point increase in the score of the annual report depth (ranging from 0 to 5) makes donations grow by about 11%, moving from an average of €1,327,948 when the annual report depth is 0–€2,274,280 when the annual report depth is 5.

In Models 3 and 4, we replicated the analyses performed for Models 1 and 2, as post hoc analyses not presented in the hypothesis, to consider whether the reliance of CFs on donations had a conditional effect on the depth of online disclosures. To this end, we considered the interaction between *Disclosure Depth* and *Donor Dependence*. As Model 3 shows, there was no significant association between the interaction variable and contributions when we considered *Total Disclosure Depth*. In other words, the reliance on charitable contributions did not influence the sensitivity of CFs to the depth of total disclosure provided through the web. In Model 4, we conducted the analysis by replacing *Total Disclosure Depth* with our three disaggregated partial indicators of disclosure. The results indicated that the coefficient on the performance interaction term was positive and statistically significant and highlighted that CFs that were more dependent on donations were more sensitive to the depth of performance disclosure. Conversely, we did not observe this effect for the annual financial report or for the other financial disclosures.

5 | DISCUSSION AND CONCLUSION

Community foundations habitually use websites to disclose information about their performance and finances at a limited cost to encourage donors to provide the money necessary for their survival. Previous studies have emphasized the importance of web-based accountability and demonstrated that donors tend to reward nonprofits that are inclined to disclose large quantities of online information with more donations (Atan et al., 2012; Harris & Neely, 2018; Sargeant et al., 2007; Saxton et al., 2014; Saxton & Wang, 2014). Thus, researchers have urged nonprofit organizations to move from an approach that simply aims to ensure a presence on the internet toward increased online disclosure of financial and performance issues to provide donors with more information that they would find useful in making decisions on donations (Gandía, 2011). With the aim of contributing to the debate on web-based accountability, our study focused on the case of United Kingdom and Italian CFs and examined if, and how, the level of detail of the online disclosure—in terms of both clear descriptions and numerical data (Beck et al., 2010)—influences the amount of future donations that these organizations attract.

The empirical evidence indicates that disclosures on financial health and efficiency in developing philanthropic activities have a key role in increasing donations in CFs. A deeper analysis of the results indicates that the more detailed the annual report, the greater the ability of the organization to attract donations. Previous studies (Atan et al., 2012; Gandía, 2011; Saxton et al., 2014) provided strong support for the relevance of the online availability of the financial annual report, because it enhances returns with respect to charitable contributions. Adding to

this point, our results suggest that providing an annual report with numerical, narrative, and comparable information is more rewarding than simply providing a report. Thus, CFs should devote attention to the content of annual financial reports, given that those with richer details obtain a better response from donors through greater contributions. This finding means that donors appreciate and reward disclosures that address financial issues in a numerical manner (such as financial statements) and include qualitative explanations of quantitative data (e.g., notes and annexures). Even more important is the availability of qualitative statements demonstrating year comparisons, because they allow donors to appreciate the CF's going concerns and the evolving trends of the results achieved through its asset management and grant-making activities. In contrast, in-depth disclosures with high levels of detail on other financial information provided on the website, such as investment policies, funds collected, and calls for grants, do not seem to have a positive association with donations. Our results suggest that the annual report contains all the financial information that can make a difference in the competition for charitable contributions. The most plausible explanation for the success of the annual report, perhaps, is that this report is one of the most cost-effective ways for sharing structured financial information that is useful for assessing and comparing the financial health of different competing CFs.

In terms of performance disclosures, our results suggest that not all CFs are rewarded in the same way for their efforts of providing in-depth accounts of their goals and outcomes. Only highly donor-dependent CFs, which attract the majority of their donations from the charitable contributions market, benefitted from providing greater levels of detail about long-term goals, priorities, policies for achieving these goals, and projects realized through the grants awarded. The online availability of a series of standalone impact reports presenting this information in a single document and describing, both in numerical and narrative terms, the achievements of an organization over time adds to the levers that CFs can use to increase the amount of subsequent-year donations. The counterintuitive findings that emerged from previous studies on the magnitude of disclosure (Saxton et al., 2014) stated that the return from performance disclosure for CFs that are highly dependent on charitable contributions diminishes when the amount of online information increases. Our results support the more intuitive assertion that the more CFs rely on donor funding, the more important it is that they provide highly detailed information about their priorities, projects, and impact through narrative, quantitative, and comparable information.

Lastly, alongside our findings on the depth of the annual financial report, other financial information and performance disclosure, the empirical evidence obtained from this study confirms that a large asset size and fundraising expenses increase a CF's capacity to compete successfully for charitable contributions (Gandía, 2011; Harris & Neely, 2018; Trussel & Parsons, 2008). Conversely, the organization's age is not significant (Saxton et al., 2014) and does not produce the expected reputation effect (Tinkelman & Mankaney, 2007). Unlike other studies (Ashley & Faulk, 2010; Gneezy et al., 2014; Tinkelman & Mankaney, 2007) that found a negative influence of the administrative costs on donations, our research paints a positive picture of the administrative expenses and contributes to dispel the so-called “overhead myth” (Hager & Flack, 2004; Roesner, 2014). We can explain the positive influence of administrative expenses on donations by considering that spending part of the funds on building a robust organizational structure (e.g., technology systems and staff training) increases the capacity of CFs to create impact and thus encourages donors to reward the organization through donations.

In contributing to scrutinizing the variables that affect organizations' capacity to compete in the market of charitable contributions, this study is not without limitations. Its focus on CFs, which represent a small, although fast-growing, subsector of nonprofit organizations, limits the generalizability of the results. Further research could test our extended version of the economic model of giving by considering a larger sample that includes different types of nonprofits to investigate whether the same online accountability practices will lead to increased donations in other types of organizations. Additionally, we limited our analysis to the United Kingdom and Italian context. Future investigations could include other European countries or consider Europe as a whole and divide the sample into pre-Internet creation/post-Internet creation because recent CFs might be more inclined to establish their presence online and thus have greater transparency and disclosure elements. Furthermore, in our analysis we have chosen to remove from the sample CFs with missing online information and financial data. As their inclusion may have yielded some different insights, future studies could adopt less tight criteria and consider also those organizations that have made a decision to not be as transparent on their websites. Further research could also deepen the examination of the role of administrative expenses. The debate on this topic has revealed mixed results (Ashley & Faulk, 2010; Ryazanov & Christenfeld, 2018). Our study suggests that the more a CF spends on administrative expenses, the more donations it will receive. In addition, it would be interesting to assess online disclosure by exploring the actual information needs of the donors to gain further insights into the levers that a nonprofit can use to manage the relationship between contributions and web disclosure.

Should nonprofit managers care about the depth of the disclosure they provide online? Our investigation of United Kingdom and Italian CFs provides strong support for the relevance of in-depth and highly detailed online annual financial reports in promoting charitable giving. This finding implies that CFs' managers concerned with multiple-donor fundraising should devote careful attention to not only providing the annual financial reports through their websites, but also to the richness in detail of these reports' content. Narrative, quantitative, and comparable accounts contribute to increasing the collection of donations, given that they provide donors with signals that more effectively outline how well an organization is managed.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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