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How market value relates to corporate philanthropy and its assurance. The moderating effect of the business sector

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Abstract

Corporate philanthropy strategy integrated into the core business constitutes a novel vision and a little-explored field of study with regard to corporate social commitment. The goal of this study is to analyse how the diverse ways of managing and assuring philanthropy can be considered signals of a firm's social commitment and consequently affect its market value. In addition, the analysis considers whether the business sector moderates those relationships. We aim to provide a comprehensive vision of corporate philanthropy and its effect on market value. From a sample of 965 firm-years, of 193 firms from 2011 to 2015, we found that the market responds positively to the professional, independent management of philanthropy via a foundation, in preference to donations, and welcomes external assurance of corporate philanthropy as a set of actions that improve the perceived reliability of philanthropic activities. In addition, we observe a moderating effect of the business sector on the relationships among corporate philanthropy, assurance and the company's market value. The main contribution of this study is the provision of new evidence of how corporate philanthropy and its assurance are effective signals that reduce the information asymmetries between firms and investors, affecting company market value positively.

1 | INTRODUCTION

Corporate social responsibility (CSR) is the voluntary commitment by companies to the social development, environmental protection, respect for fundamental rights, and adoption of open governance, reconciling the interests of stakeholders in an overall approach of quality and sustainability (Commission of the European Communities, 2001). The definition of CSR encompasses a firm's social performance, including its corporate philanthropy (Al-Tabbaa, Leach, & March, 2014; Brammer, Pavelin, & Porter, 2009; Jia & Zhang, 2014), which is defined as the set of activities voluntarily carried out by the company aimed at improving the lives of communities by carrying out projects that address issues of public interest and social problems, generally through the provision of funds, time or in-kind assets (Haski-Leventhal, 2013; McHugh et al., 2018; Muller & Whiteman, 2016). Corporate philanthropy is growing in importance in the business strategy of companies (Gautier & Pache, 2015; Zerbini, 2017).

We consider that firms inform stakeholders, including investors, about their corporate philanthropy, which reduces the information asymmetry between signallers and receivers (Muttakin, Khan, & Subramaniam, 2015). From this perspective, the theoretical framework applied should be signalling theory (Spence, 1973), which considers that there is an information asymmetry between a company and its investors. Corporate philanthropy is then analysed as a strategic issue. Corporate philanthropy acts as a signal to investors of trust, cooperation, and concern for stakeholders (Bae, Masud, & Kim, 2018; Ferreira, 2017; Groening & Kanuri, 2018; Jo & Harjoto, 2011) or a signal of a positive image and reputation (Moratis, 2018) that could improve the company's financial performance (Bae et al., 2018; Moratis, 2018), create value in the medium and long terms and

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consequently increase the market value (Muhammad, Scrimgeour, Reddy, & Abidin, 2015; Vveinhardt & Zygmantaite, 2015).

Investors and shareholders are not the direct target of corporate philanthropy (Cheong, Sinnakkannub, & Ramasamy, 2017), but firms can use it as a signal of best practices to positively affect the market. The firm sends a signal of corporate philanthropy that generates trust and allows investors to make decisions that can affect the market positively (Muttakin et al., 2015; Zerbini, 2017). If investors perceive, however, that corporate philanthropy is simply a tool for marketing (Wójcik, 2018), image (Leisinger, 2007), or reputation (Liang & Renneboog, 2017) used to satisfy managers' personal interests (Barnea & Rubin, 2010) or compensate for bad practices (Chen, Patten, & Roberts, 2008) there will be a negative effect on performance.

In the light of these considerations, the first objective of our study is to examine whether corporate philanthropy has a positive effect on market value. We distinguish here between discretionary and structured corporate philanthropy. Corporate philanthropy may comprise sporadic and discretionary practices through donations, which usually are considered to respond to the personal preferences of managers (Luffarelli & Awaysheh, 2018) or be planned and structured through foundations (Bereskin, Campbell, & Hsu, 2016; Liang & Renneboog, 2017).

In the former case, managers might engage in philanthropic practices to obtain individual benefits or out of personal motivations (Barnea & Rubin, 2010; Prior, Surroca, & Tribó, 2008). Investors could consider this a false signal (Cohen & Dean, 2005). In the latter case, corporate philanthropy is usually supported by specialised organisational structures (Brammer & Millington, 2003; Marquis & Lee, 2013), increasingly frequently through foundations specially created or used to manage the social business strategy (Minciullo & Pedrini, 2015; Waniak-Michalak & Michalak, 2016). Channelling corporate philanthropy through foundations may give it more credibility with investors and assure a fair and objective decision-making process (Liang & Renneboog, 2017).

Our second goal is to determine whether the introduction of mechanisms to assure and supervise a firm's corporate philanthropy has any effect on its market value, on the assumption that if the information about such corporate philanthropy is not supervised, its credibility may be questioned (Kolk & Perego, 2010). Thus, the assurance of corporate philanthropy, aimed at evaluating the quality of sustainability reports (Global Reporting Initiative, 2013), supposes an added value (Boiral, Heras-Saizarbitoria, & Brotherton, 2019). Assurance can enhance the credibility of the practices (Cui, Jo, & Na, 2018). These assurance mechanisms may be internal and/or external to firms (Becker, 2018). Their existence provides security to investors and therefore should positively affect market value, with the internal mechanisms acting as indicators of good governance (Darko, Aribi, & Uzonwanne, 2016) and the external ones underpinning the reliability of the outcomes reported (International Federation of Accountants, 2012). Although previous research has generally studied these mechanisms separately (Chen & Lin, 2015; Peterson & Su, 2017), in this paper, they were analysed as though both assurance mechanisms were perceived as signals of effectiveness and guarantee (Bae et al., 2018) and positively influenced the market's assessment of company value.

Third, we analyse the moderating effect of the business sector, both on the relationship between corporate philanthropy and market value and on that between external and internal assurance and market value. We hypothesise that the effect of channelling, managing, and assuring philanthropy may be reinforced by the sector in which the company operates (Peterson & Su, 2017; Sierra, Zorio, & García-Benau, 2013). The demands of social practices often differ by sector.

To meet the research objectives, we performed a panel data model to 965 firm-years, observing 193 European firms from thirteen countries in the period 2011–2015, after the financial crisis, once the economy was more stable.

The paper contributes to the study of the relationship between CSR and financial performance, focusing on corporate philanthropy considered from a strategic point of view. This approach is novel since philanthropy has generally been treated as an element of legitimisation but not as a strategy integrated into the core business (Liang & Renneboog, 2017). This study belongs to the group of researchers who argue that corporate philanthropy and its assurance are deliberate actions to signal information to the market about the characteristics of the company and indirectly affect market value (Chang, Jo, & Li, 2018; Zolotoy, O'Sullivan, & Klein, 2019). The research explores how corporate philanthropy is articulated and how investors perceive its quality, consistency, and effectiveness and take these factors into account in their decision making, positively affecting market value. Investors thus appreciate that corporate philanthropy is structured and managed through foundations, as opposed to donations. Similarly, the external assurance of corporate philanthropy is valued positively by the market. The results show that corporate philanthropy and its assurance, when managed strategically, are signals of reliability and effectiveness that reduce the information asymmetries between firms and their investors, increasing investor confidence in the company and affecting market value. In addition, the sector of the company's operations plays a moderating role in the relationship among corporative philanthropy, assurance, and market value, showing that different sectors evaluate the followed strategies differently. These results should be taken into account when introducing corporate philanthropy strategies in companies.

The rest of this paper is organised as follows. In the next section, we review the literature and propose the study hypotheses. In section three, the data and estimation method are presented, after which the results obtained are presented. The fifth and final section analyses and discusses the results and summarises the main conclusions drawn.

2 | LITERATURE REVIEW AND STUDY HYPOTHESES

2.1 | Theoretical framework

The present study adopts signalling theory, which is applicable in scenarios where two parties have different amounts of information.

Signalling theory deals with the reduction of information asymmetry between the sender, who sends signals and communicates information, and the receiver, who receives and interprets those signals. The information is an observable signal used as an indicator of unobservable firm quality, addressed to an objective audience (Adams, Tashchian, & Shore, 2001). This theory was proposed by Spence (1973) and since then has been applied in different management areas, frequently from a strategic perspective. This theory has been widely applied in scholarly research on capital markets. The approach used was to analyse how firms with inside information signal to misinformed investors. Several studies have focused on initial public offerings (Bergh, Connelly, Ketchen, & Shannon, 2014; Connelly, Certo, Ireland, & Reutzel, 2011); earnings announcements (Denis, Denis, & Sarin, 1994); pre-market evaluation (Jain, Jayaraman, & Kini, 2008; Riedl & Smeets, 2017); debt level and volume of dividends (Bhattacharya, 1979; Cao, Du, & Hansen, 2017; Ross, 1977); or board characteristics (Miller & Triana, 2009; Moore, Bell, Filatotchev, & Rasheed, 2012).

The use of signalling theory in ethics research is a relatively recent development (Adams et al., 2001). The idea that ethical commitment could be signalled by implementing CSR initiatives was first suggested in the 1990s by Fombrun and Shanley (1990), and its use has been growing since. Signalling theory looks at CSR activities from a strategic point of view, explaining that the informational value inherent to CSR initiatives will have a consistent response in the market (Connelly et al., 2011; Zerbini, 2017). This theory supposes that CSR initiatives have an instrumental value that is used to reveal a company's hidden aspects to the market. Signalling theory helps specify the evidence the underlying mechanisms that serve to link CSR initiatives to market answers (Zerbini, 2017).

This theoretical framework has been addressed in research in recent years to analyse different aspects related to CSR and social issues and its effects on several areas, including financial performance (Brower, Kashmiri, & Mahajan, 2017; Ferreira, 2017; Hamrouni, Miloudi, & Benkraiem, 2015; Jo & Harjoto, 2011; Muttakin et al., 2015); the risks of non-compliance (Coleman, 2011; Datt, Luo, Tang, & Mallik, 2018; Groening & Kanuri, 2018; Luffarelli & Awaysheh, 2018; Reimsbach & Hahn, 2015; Wu & Hu, 2019; Xu, Zeng, Zou, & Shi, 2016); the signal of quality and future earnings (Basoglu & Hess, 2014; Moratis, 2018; Rupar, 2017; Siddique & Sciulli, 2018); obtaining competitive advantages and added value (Corazza, Scagnelli, & Mio, 2017; Yu, Kuo, & Kao, 2017). In recent years, the assurance of CSR has become relevant in this theoretical framework (Alon & Vidovic, 2015; Becker, 2018; Casey & Grenier, 2015). Finally, some research is centred on CSR in general or in terms of the environment, but philanthropy also occupies a special status among scholars (Haski-Leventhal & Foot, 2016; Jia & Zhang, 2014; Liang & Renneboog, 2017; Shapira, 2011).

In our research, we consider different ways of managing corporate philanthropy and assure it as a signal (Connelly et al., 2011; Groening & Kanuri, 2018; Haski-Leventhal & Foot, 2016; Moratis, 2018). These signals convey the ideas of transparency, professionalism, best practices, good governance, and consistency (Siddique & Sciulli, 2018). Investors evaluate them to determine their trustworthiness and validity and make decisions based on them (Xu et al., 2016) that could affect market value.

2.2 | Corporate philanthropy and market value

Corporate philanthropy can be considered as an effective signal (Zerbini, 2017) if it: is intentionally disclosed (Spence, 1973), has a volunteer character, is perceived as a signal of trust, cooperation, and concern for stakeholders (Groening & Kanuri, 2018; Jo & Harjoto, 2011) and is considered as a proactive action that improves its image and reputation and improves the company's relationship with stakeholders, having an ultimate effect on financial performance (Bae et al., 2018; Moratis, 2018). In this sense, investors value corporate philanthropy policy as a signal of the future creation of value and future firm profit (Moratis, 2018) or associate concern for the community with a potentially greater commitment to stakeholders, including shareholders (Qian, Gao, & Tsang, 2015). This perception could have a positive effect on the market.

Companies can manage philanthropy in various ways, but few in-depth studies on this question have been undertaken to date (Jo & Harjoto, 2011; Liang & Renneboog, 2017). Some studies have observed differences in company value according to the type of philanthropic actions they have taken (Iatridis, 2015; Jo & Harjoto, 2011; Liang & Renneboog, 2017). The signaller intentionality could be diverse and could lead to different kinds of management of corporate philanthropy. Thus, if we consider that corporate philanthropy can either be managed through discretionary donations or planned and structured through foundations, the signal will differ, as will, potentially, its effect on market value.

When corporate philanthropy is based on donations, it tends to be sporadic, motivated mostly by individual practices aimed at obtaining prestige, satisfying managers' individual motivations, or justifying a company's deficient social and environmental performance (Chen et al., 2008; Gao & Hafsi, 2017). The effect on market value may be negative, whether because the practices do not seem credible or because shareholders do not perceive this signal as trustworthy (Luffarelli & Awaysheh, 2018; Zerbini, 2017). Sporadic, discretionary practices of directors can generate distrust among investors because such corporate philanthropy is unplanned and unregulated and therefore not subject to external oversight (Bereskin et al., 2016; Liang & Renneboog, 2017). Indeed, sporadic, unfocused, and short-term-oriented corporate philanthropy negatively affect a company's market value (Barnea & Rubin, 2010; Gómez-Bezares, Przychodzen, & Przychodzen, 2017).

By contrast, the existence of a formal structure for corporate philanthropy should ensure the coherence of philanthropic policies and their integration into the firm's overall strategy (Brammer, Millington, & Pavelin, 2006; Marquis & Lee, 2013; Waniak-Michalak & Michalak, 2016) as well their being considered a signal of consistency (Ferreira, 2017; Moratis, 2018). A foundation is a legal entity independent of the firm that favours transparency (Bereskin et al., 2016; Liang & Renneboog, 2017), which is a feature of a signal

(Weigelt & Camerer, 1998). The management of corporate philanthropy via specialised structures lends professionalism and security to the activities performed. This type of corporate philanthropy can be perceived positively by investors and may benefit the market value of the company. The use of foundations is related to strategic corporate philanthropy (Liket & Maas, 2016).

In short, when corporate philanthropy is channelled via a foundation, it comes to represent a corporate attitude focused more on investors, while philanthropy based on discretional individual donations may appear to reflect managers' personal interests (Luffarelli & Awaysheh, 2018). The former suggests transparency and the latter an asymmetry of information because investors lack information about the strategic objectives of social commitments (Luffarelli & Awaysheh, 2018).

The signals communicate the underlying intentions of a firm (Groening & Kanuri, 2018). If the signals are robust and indicate good management of the firm's activities, the effect on the receiver will be positive. On the other hand, if they are controversial, their effect will be negative. We expect corporate philanthropy to have a positive effect on market value when managed through foundations and a negative effect when channelled through donations. Therefore, we examine the following hypotheses:

Hypothesis 1 *There is a positive relationship between a company's market value and corporate philanthropy channelled through foundations.*

Hypothesis 2 *There is a negative relationship between a company's market value and corporate philanthropy channelled through donations.*

2.3 | Assurance mechanisms and market

Philanthropic actions by companies are important, but they must be supervised to send a signal of trust, credibility, and quality (Becker, 2018; Hąbek & Wolniak, 2016; Kolk & Perego, 2010). This supervision should be performed on all a company's social actions (Simnett, Vanstraelen, & Chua, 2009; Villarón-Peramato, Martínez-Ferrero, & García-Sánchez, 2018). Although this supervision is of interest to all stakeholders, investors take special note of it, because this mechanism assures the confidence in the social performance, and investors' subsequent decisions can depend on it (Martínez-Ferrero & García-Sánchez, 2017). For this reason, companies adopt mechanisms, both internal and external, to monitor the social responsibility information they generate. From a signal perspective there are differences between these two types of mechanisms. Internal assurance, generally through a CSR committee, reflects managerial commitment to the implementation of CSR (Weaver, Trevino, & Cochran, 1999), demonstrates commitment to a positive social and environmental effect (Dias, Rodrigues, & Craig, 2017; Mahmood, Kouser, Ali, Ahmad, & Salman, 2018), and the supervision of code violations. Monitoring helps ensure that organisational behaviour fits a firm's values (Bell, Moore, & Filatotchev, 2012). This board structure improves a company's credibility (Certo, 2003). External assurance, on the other hand, seeks to demonstrate or emphasise the reliability and veracity of the information disclosed. Zerbini (2017) includes it among the list of dissipative signals, while internal assurance is considered as a penalty signal. External assurance is considered a sign of trust to the extent that external auditor associates their own brand and prestige with the company by assuring its trustworthiness.

Internally, the mechanism for supervising and controlling social elements is the CSR committee (Eberhardt-Toth, 2017) which may be created within the board. The existence of a CSR committee indicates a firm's greater propensity to integrate social practices into its overall strategy (Abdelmotaal & Abdel-Kader, 2016; Muttakin et al., 2015). These committees control and monitor managers to ensure that their decisions are coherent with the company's objectives and presuppose the institutionalising the management of CSR within the firm (Amran, Lee, & Devi, 2014; Luffarelli & Awaysheh, 2018).

These committees supervise the company's corporate philanthropy (Dias et al., 2017; Mahmood et al., 2018) and sustainability reporting (Fernández-Sánchez, Luna-Sotorrio, & Baraibar-Diez, 2011), thus ensuring that users are given high-quality, reliable, and credible information (Fuente, García-Sánchez, & Lozano, 2016; Luffarelli & Awaysheh, 2018). Their actions can be a signal to investors of stakeholder integration and the safeguarding of stakeholder interests in the company's decision-making process (Frías-Aceituno, Rodríguez-Ariza, & Sánchez-García, 2013; Godos-Díez, Cabeza-García, Alonso-Martínez, & Fernández-Gago, 2018).

Stakeholders, among whom investors are of major importance, often require companies to retain independent, external assurance of their activities (Adams & Evans, 2004; Braam & Peeters, 2018; Sethi, Martell, & Demir, 2017a), thus ensuring quality and compliance with accepted standards (Cnaan, Jones, Dickin, & Salomon, 2011; Luffarelli & Awaysheh, 2018; Martínez-Ferrero & García-Sánchez, 2017). Compliance with standards lends credibility to firms' commitment to social issues (Moratis, 2018; Shafer & Lucianetti, 2018). In this respect, studies have concluded that assured reports enhance companies' credibility and reliability, and hence stakeholders' confidence in them (Carey, Simnett, & Tanewski, 2000; De Beelde & Tuybens, 2015; Kolk & Perego, 2010).

External assurance improves the quality of disclosure by promoting better quality content and a higher quantity of information disclosed (Hąbek, 2017). This assurance requires the existence of supervisory standards (Adams & Evans, 2004; Shafer & Lucianetti, 2018) and companies' internal control processes (De Beelde & Tuybens, 2015). External assurance also has a financial effect, by corroborating the credibility of the information disclosed (Lo, 2015). External assurance can encourage investment because the decision to invest in a company requires not only risk assessment according to the data available but also the confidence that such data are in fact reliable (Guiso, Sapienza, & Zingales, 2008). Furthermore, investors are enabled to better evaluate social disclosure, responding to investors' needs for greater transparency (Sethi, Martell, & Demir, 2017b).

Therefore, mechanisms of internal and external assurance can help safeguard the interests of investors and other stakeholders and improve the reliability of reports on which decisions are based, thus reducing information asymmetries and errors in forecasting (Bansal, López-Pérez, & Rodríguez-Ariza, 2018; Luffarelli & Awaysheh, 2018). Not all companies use both mechanisms, although both are expected to be valued positively by investors and consequently in the firm's market value (Abdelmotaal & Abdel-Kader, 2016; Villarón-Peramato et al., 2018). Accordingly, we propose the following hypotheses:

Hypothesis 3 *There is a positive relationship between the existence of a CSR committee within a company and its market value.*

Hypothesis 4 *There is a positive relationship between the external assurance of corporate philanthropy and the firm's market value.*

2.4 | The moderating effect of the business sector

Business sector is a factor that can be associated with the market value of the company (Jia & Zhang, 2014). The sector in which a company operates could have an effect on the distribution of resources, public exposure, and stakeholder expectations (Jain, Aguilera, & Jamali, 2017; Siddique & Sciulli, 2018; Yang, Wang, Hu, & Gao, 2018). Therefore, firms in specific sectors (e.g., with more visibility, more need to promote good public relations or more social impact) are more likely to develop social practices, whether unilaterally or in response to demand, that inform stakeholders of the firm's social commitment (Aqueveque, Rodrigo, & Duran, 2018; Gómez-Bezares, Przychodzen, & Przychodzen, 2017; Yang et al., 2018).

Corporate philanthropy may vary depending on the sector of activity of the company (Ahen & Amankwah-Amoah, 2018; Beschorner & Hajduk, 2017; Kamasak, James, & Yavuz, 2019). In this sense, philanthropic actions occur more frequently in the most environmentally and socially sensitive industries, where legitimacy is more critical (Cha & Abebe, 2014; Gómez-Bezares et al., 2017; Yu et al., 2017), and in those most sectors exposed to demands from certain stakeholders, such as SRI investors, NGOs, and government institutions (Gao & Hafsi, 2017; Riedl & Smeets, 2017; Sethi et al., 2017a).

Stakeholders can react differently to corporate philanthropy practices depending on whether the companies are commercial or industrial (Muttakin et al., 2015), according to their expectations of the industry (Pérez García, & Liu, 2019; Singh, Sethuraman, & Lam, 2017). Among commercial companies, the value assigned to philanthropy might be associated with the company's reputation and thus legitimise its performance (Amato & Amato, 2012; Brammer & Millington, 2005). In this context, philanthropy would be viewed as a marketing tool, useful for promoting and reinforcing the company's image (Peterson & Su, 2017). On the other hand, the philanthropic decisions of industrial companies tend to be more integrated into their activities (Peterson & Su, 2017) and more stable over time, which facilitates the achievement of tangible social goals (Rothenhoefer, 2019).

In this respect, sector can be a factor that can influence the management of corporate philanthropy and how it is perceived by stakeholders, thereby affecting its market value (Groening & Kanuri, 2018; Luffarelli & Awaysheh, 2018). Therefore, sector can moderate the relationship between the company's corporate philanthropy and its financial performance. In this sense, when a company operating in an industrial sector projects a stable, socially oriented form of corporate philanthropy, the effect of the management of its corporate philanthropy through a foundation on its market value will be heightened (Oh, Bae, Currim, Lim, & Zhang, 2016). In addition, whether or not investors perceive the benefit of the signal and identify the donations as credible practices (Groening & Kanuri, 2018) in industrial companies (Peterson & Su, 2017), these activities could also affect market value. Therefore, this paper aims to provide new empirical evidence of whether the sector in which the company operates moderates the relationship of corporate philanthropy with market value. In the case of industrial companies, the expected result is that the sector moderates positively when corporate philanthropy is managed through foundations and, conversely, in the case of commercial companies, sector moderation is expected to be positive when channelled through donations. Therefore, the following two hypotheses are proposed:

Hypothesis 5 *Belonging to the industrial sector positively moderates the effect on market value produced by managing corporate philanthropy through a foundation.*

Hypothesis 6 *Belonging to the commercial sector positively moderates the effect on market value produced by managing corporate philanthropy through donations.*

On the other hand, the business sector in which a company operates could be a factor because it is associated with a request for corporate philanthropy assurance (Sierra et al., 2013) and how the question of assurance of corporate philanthropy is addressed (Sethi et al., 2017a), which could in turn affect market value (Gautier & Pache, 2015; Rothenhoefer, 2019). The effect of assurance mechanisms on financial performance could differ among sectors (Bartkus, Morris, & Seifert, 2002). Assurance is more frequent in sensitive and consumer sector, both related to perceived legitimacy (Ackers, 2017). We must consider that there is a mimetic process among companies in the same sector related to environmental and social sustainability, which may lead to the adoption of the same assurance policies (García-Sánchez, Gomez-Miranda, David, & Rodríguez-Ariza, 2019). In addition, assurance credibility is higher in industries where assurance is more common and the assurer is a professional accountant (Pflugrath, Roebuck, & Simnett, 2011). The demand for assurance is higher in industrial companies (Sierra et al., 2013; Simnett et al., 2009) and in those having a greater environmental impact (Moroney, Wundsor, & Aw, 2012). Investors must weigh the risks posed by different types of business activity, and firms operating in sensitive sector might find that internal and external assurance boosts their market value (Amor-Esteban, Galindo-Villardón, & García-Sánchez, 2018; Sierra et al., 2013). This fact suggests that the industry plays a mediating role in the type of assurance carried out. No literature distinguishes between internal and external assurance mechanisms, but we propose that both of them are more relevant for investors in the industrial sector than the commercial one because this sector is more sensitive to social and environmental risks and markets must take this information into account. In this sense, related to the moderator effect of business sector on the effect of internal or external assurance mechanisms on market value, we propose the following two hypotheses:

Hypothesis 7 *Belonging to the industrial sector positively moderates the effect on market value produced by the use of mechanisms of internal assurance.*

Hypothesis 8 *Belonging to the industrial sector positively moderates the effect on market value produced by the use of mechanisms of external assurance.*

3 | METHOD

3.1 | Sample

This study focuses on the observations of 965 firm-years (193 European firms operating in 13 countries), using data from 2011 to 2015, being an unbalanced sample. We selected this period starting after the financial crisis because in a period of financial stability, when confidence in markets has recovered, we can obtain a more homogeneous sample. The effects on CSR activities of a period of a constrained economy are uncertain. Companies could diminish their CSR activities or expand them to attend to more urgent needs (Bansal, Jiang, & Jung, 2015). Some studies show an increase in companies' social policies after the financial crisis (Cornett, Erhemjamts, & Tehranian, 2016; Fernández-Sánchez, Sotorrío, & Baraibar-Diez, 2015) as well as in corporate philanthropy investment (Bansal et al., 2015). These reasons justify this period as a good time to analyse whether corporate philanthropy mechanism improves firms' market value.

The dependent variable and control variables were extracted from two databases: one to obtain financial data (Eikon Thomson Reuters) and the other (Sustainalytics) to obtain corporate philanthropy, corporate governance, sector, zone, and assurance data. Eikon Thomson Reuters is a tool that provides technical analysis for trading and investment decisions. It also incorporates global financial data. We used this database to obtain the financial data of the sample. Sustainalytics is a data provider for socially responsible investors that facilitates the analysis of social, environmental and governance aspects of corporate entities. This database has been used in previous research on CSR (Arco-Castro, López-Pérez, Pérez-López, & Rodríguez-Ariza, 2018; Surroca, Tribó, & Waddock, 2010; Wolf, 2014) and provides performance information based on the Key Performance Indicators for ESG 3.0 published by DVFA (*Deutsche Vereinigung fur Finanzanalyse und Asset Management*) and the European Federation of Financial Analysts Societies (EFFAS).

3.2 | Measures

We used independent, dependent, and control variables, as explained in Table 1.

TABLE 1 Model variable definitions

	Definitions	Measure	Studies
Dependent variables			
Market value	Tobin's Q	Market value of total assets over the book value of total assets.	Liang and Renneboog (2017), Lin, Lee, and Lee (2011), Zyglidopoulos, Georgiadis, Carroll, and Siegel (2012)
Independent variables			
foundation	Firm channels corporate philanthropy through foundations.	Companies with foundation 1 and 0 otherwise	Brown, Helland, and Smith (2006), Liang and Renneboog (2017)
Donations	Firm channels corporate philanthropy through donations.	Percentage of net profit used for donations	Arco-Castro et al. (2018), Qian et al. (2015)
CSR committee	Firm assures corporate philanthropy through a CSR committee.	1 if there exists an internal mechanism for monitoring CSR and 0 otherwise	Dias et al. (2017), Fuente et al. (2016), Mahmood et al. (2018)
External assurance	Firm assures corporate philanthropy externally.	1 if the company assures its social reports via external professionals and 0 otherwise	Kolk and Perego (2010), Braam and Peeters (2018), Martínez-Ferrero and García-Sánchez (2017)
Control variables			
Sector	Firm's industry	1 if the company operates in the industrial sector and 0 if its activities are commercial	Peterson and Su (2017)
Zone	Law system of country in which firms operates	1 if the country in which the company operates has a civil-law system and 0 if it has a common-law system	Kim, Park, and Ryu (2017)
Size	Firm's size	Logarithm of total assets of the firm	Lin et al. (2019)
Profitability	ROA	Profit to assets	Gao, Yang, and Hafsi (2019)
Risk	Firm's financial risk	Total debts to total capital	Gao et al. (2019), Gómez-Bezares et al. (2017)

3

From the perspective of signal theory, it is expected that market value will be affected by the signals issued by the firm: in this case, corporate philanthropy and its assurance. For investors, the practices of philanthropy and their assurance could be for stakeholders a sign of trust, cooperation (Jo & Harjoto, 2011), and a message of expectations of future profits (Moratis, 2018; Zyglidopoulos et al., 2012). That is to say: social actions will create value in the medium and long terms (Fioravante, 2010; Vveinhardt & Zygmantaite, 2015). We use Tobin's Q, which considers the future expectations of market value and profitability (Zyglidopoulos et al., 2012). Tobin's Q is used to explain the relationship between market and business (Lin et al., 2011). Other possible measures in the literature that take the market into account are stock returns and the price-to-earnings ratio. The ROA and ROE are strictly accounting measures that do not take into account the market and, in this sense, are not suitable within the framework of signal theory.

Finally, we consider as control variables the geographic area, size, profitability and risk. We use legal system as a proxy for geographic area. Concerning the legal system, we can distinguish between common-law and civil-law countries (Frías-Aceituno et al., 2013). The legal system and social policies adopted by each country can all influence a company's value (Miralles-Quiros, Miralles-Quiros, & Arraiano, 2017). Regarding the preferences of countries for philanthropic practices, systems based on common law are more inclined to manage corporate philanthropy through foundations (Albareda, Lozano, & Ysa, 2007; Maon, Swaen, & Lindgreen, 2017). In addition, countries with a common-law system tend to implement more and stronger policies for shareholder protection; in civil-law countries, managers have a greater degree of discretion to make decisions affecting investors (Miralles-Quiros et al., 2017). Other control variables in market-value studies are size, profitability, and risk (Gao et al., 2019; Gómez-Bezares et al., 2017).

3.3 | Model estimation

Our study hypotheses were tested by means of the following regression models:

$$\begin{aligned}\text{Marketvalue}_{it} = {} & \beta_0 + \beta_1 \text{Foundation}_{it} + \beta_2 \text{Donations}_{it} \\ & + \beta_3 \text{CSRCommittee}_{it} + \beta_4 \text{Externalassurance}_{it} \\ & + \beta_j \text{Sector}_i + \beta_k \text{Zone}_i + \beta_5 \text{Size}_{it} \\ & + \beta_6 \text{Profitability}_{it} + \beta_7 \text{Risk}_{it} [\text{Model1}]\end{aligned}$$

Furthermore, four models are proposed to test the moderating effect of the sector on the relationship of each of the corporate philanthropy and assurance variables (foundation, donations, CSR Committee, and external assurance) to the market value.

$$\begin{aligned}\text{Marketvalue}_{it} = {} & \beta_0 + \beta_1 \text{Foundation}_{it} + \beta_2 \text{Donations}_{it} \\ & + \beta_3 \text{CSRCommittee}_{it} + \beta_4 \text{Externalassurance}_{it} \\ & + \beta_j \text{Sector}_i + \beta_k \text{Zone}_i + \beta_5 \text{Size}_{it} \\ & + \beta_6 \text{Profitability}_{it} + \beta_7 \text{Risk}_{it} \\ & + \beta_8 \text{Foundation}_{it} {}^* \text{Sector}_i [\text{Model2}]\end{aligned}$$

$$\begin{aligned}\text{Marketvalue}_{it} = {} & \beta_0 + \beta_1 \text{Foundation}_{it} + \beta_2 \text{Donations}_{it} \\ & + \beta_3 \text{CSRCommittee}_{it} + \beta_4 \text{Externalassurance}_{it} \\ & + \beta_j \text{Sector}_i + \beta_k \text{Zone}_i + \beta_5 \text{Size}_{it} + \beta_6 \text{Profitability}_{it} \\ & + \beta_7 \text{Risk}_{it} + \beta_9 \text{Donations}_{it} {}^* \text{Sector}_i [\text{Model3}]\end{aligned}$$

$$\begin{aligned}\text{Marketvalue}_{it} = {} & \beta_0 + \beta_1 \text{Foundation}_{it} + \beta_2 \text{Donations}_{it} \\ & + \beta_3 \text{CSRCommittee}_{it} + \beta_4 \text{Externalassurance}_{it} \\ & + + \beta_j \text{Sector}_i + \beta_k \text{Zone}_i + \beta_5 \text{Size}_{it} + \beta_6 \text{Profitability}_{it} \\ & + \beta_7 \text{Risk}_{it} + \beta_{10} \text{Externalassurance}_{it} {}^* \text{Sector}_i [\text{Model4}]\end{aligned}$$

$$\begin{aligned}\text{Marketvalue}_{it} = {} & \beta_0 + \beta_1 \text{Foundation}_{it} + \beta_2 \text{Donations}_{it} \\ & + \beta_3 \text{CSRCommittee}_{it} + \beta_4 \text{Externalassurance}_{it} \\ & + \beta_5 \text{Size}_{it} + \beta_6 \text{Profitability}_{it} + \beta_7 \text{Risk}_{it} \\ & + \beta_j \text{Sector}_i + \beta_k \text{Zone}_i + \beta_{11} \text{Committee}_{it} {}^* \text{Sector}_i [\text{Model5}]\end{aligned}$$

The study estimates the statistical models using the data panel method. Before selecting the suitable estimator and technique of analysis, because of the numerical nature of our dependent variable, we examined whether we needed to use fixed or random effects. Thus, we first examined whether the errors are not serially correlated and whether homoscedasticity exists. To test endogeneity problems, we applied the Hausman test (1978) (García-Castro, Ariño, & Canela, 2010). The coefficient of the philanthropy explanatory variable turns out to be significant (p value = .000), which leads us to reject the null hypothesis of exogeneity. Next, the model presents endogeneity, highlighting the need to use dynamic estimation. Moreover, to test for the existence of heteroscedasticity and autocorrelation, we applied the modified Wald test (Hawn & Kang, 2013; Martínez-Ferrero & García-Sánchez, 2015) and Wooldridge test, respectively (Hawn & Kang, 2013; García-Sánchez, Suárez-Fernández, & Martínez-Ferrero, 2019). The results of the modified Wald test indicate heteroscedasticity problems in the model because the null hypothesis of homoscedasticity is rejected (p value = .000). For its part, the Wooldridge test indicates the presence of autocorrelation because the hypothesis that there are no serially correlated errors is rejected (p value = .000).

The endogeneity, together with the existence of heteroscedasticity and autocorrelation problems, led us to apply the estimator proposed by Arellano and Bover (1995), based on the dynamic models introduced by Hansen (1982). This estimator allowed us to obtain consistent estimators (García-Sánchez et al., 2019). Then, we employed a generalized method of moments (GMM) (Arellano & Bond, 1991; Hansen, 1982). Concretely, we used a two-step system estimator (Arellano & Bover, 1995) developed by Roodman (2009) to correct for endogeneity and control for the unobservable heterogeneity (García-Sánchez et al., 2019; Villarón-Peramato et al., 2018). We considered 1-year lagged values of variables to ensure they were uncorrelated with the error term (Pindado & Requejo, 2015). We used a lag of 1 year to minimise problems that might exist due to endogeneity (Stellner, Klein, & Zwergel, 2015) and because the shortest lags are more appropriate than the longest ones, since they contain information about the current values of the variables (García-Sánchez et al., 2019; Pindado & Requejo, 2015).

4 | RESULTS

Table 2 shows the descriptive statistics of the variables included in the study. The donations allocated by firms equal on average 0.38% of their net profit. On the other hand, 51% of the companies analysed managed their corporate philanthropy through foundations. Eighty-five per cent of the companies have an internal mechanism for monitoring CSR and 63% have external assurance of social responsibility. Furthermore, 52% are commercial firms and 74% are civil-law countries.

Table 3 provides a description of the sample by countries.

The results indicate that there are differences among the countries in the sample. The geographical area in which a firm performs its operations is associated with the way its philanthropy is managed. Firms within systems based on civil law are more inclined to manage their corporate philanthropy through foundations. In addition, the supervisory mechanisms (CSR committee and external assurance) are more frequent in countries with civil law than in those with common law. This result is supported by previous research that points to cultural or institutional factors as the causes of the differences in social and supervisory policies carried out by the companies (Albareda et al., 2007; Frías-Aceituno et al., 2013; Maon et al., 2017). In the research, however, according to our analysis, the zone does not significantly influence the firm's market value.

Finally, Table 4 shows the results of the regression analysis. The results are shown in columns. Model 1 considers the relationship among market value and corporate philanthropy, assurance, and control variables. Models 2 and 3 take into account the moderating effect of sector on corporate philanthropy via foundations and donations, respectively. Finally, Models 4 and 5 present the moderating effect of sector on internal and external assurance, respectively.

The results obtained for the Arellano-Bond test for AR (2) in the first-differences residuals suggest that under the null hypothesis of absence of serial correlation, AR (2) is uncorrelated. The results obtained for the Hansen test to detect over-identification allow us to accept that instrumental variables are not correlated with the error term, so it can be affirmed that they are valid (Cui et al., 2018; García-Sánchez et al., 2019; Torres, Bijmolt, Tribó, & Verhoef, 2012).

Model 1 shows that the market positively values a firm's social commitment when its corporate philanthropy is managed through formal structures like foundations; therefore, Hypothesis 1 is supported. There is no significant effect on the market, however, when the charitable giving is conducted through donations, so Hypothesis 2 is rejected.

The results obtained for assurance mechanisms indicate that the presence of a CSR committee is not significant to Tobin's Q, and Hypothesis 3 is rejected. External assurance, however, is positively related to the company's market value, and therefore Hypothesis 4 is supported.

The results obtained for the control variables in Model 1 indicate that the zone and business sector do not significantly influence the firm's market value, although size does.

According to the results obtained for Model 2, the sector in which the company conducts its activity significantly moderates the effect on market value of corporate philanthropy managed through a foundation. Moreover, the results obtained in Model 3 show that the sector significantly moderates the effect on market value of corporate donations. Thus, when companies belong to the industrial sector, investors perceive corporate philanthropy, both through foundations and

TABLE 2 Descriptive statistics

Continuous variables	Description	Mean	*SD*	Min.	Max.
Market value	Tobin's Q	2.35	2.10	.15	12.34
Donations	Percentage of net profit for donations	.38	.14	.00	1.00
Size	Log of total asset	17.06	1.52	13.56	22.21
Profitability	ROA	7.58	8.41	(15.1)	44.08
Risk	Debt ratio (leverage)	1.32	1.20	.00	7.81
Dichotomous variables	Description	Frequency	%	Valid percentage	Cumulative percentage
Foundation	Companies with foundation	490	50.78	50.78	50.78
	Companies without foundation	475	49.22	49.22	100.00
CSR committee	Companies with CSR committee	820	84.97	15.03	15.03
	Companies without CSR committee	145	15.03	84.97	100.00
External assurance	External assurance	607	62.90	62.90	62.90
	No external assurance	358	37.10	37.10	100.00
Sector	Industrial sector	460	47.67	47.67	47.67
	Commercial sector	505	52.33	52.33	100.00
Zone	Civil law	710	73.58	73.58	73.58
	Common law	255	26.42	26.42	100.00

TABLE 3 Analysis of dichotomous explanatory variables by country

	Foundation		Non-foundation		CSR committee		Non-CSR committee		External assurance		Non-external assurance	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Denmark *n* = 45	20	4.1	25	5.3	30	3.7	15	10.3	22	3.6	23	6.4
Finland *n* = 55	23	4.7	32	6.7	35	4.3	20	13.8	27	4.5	28	7.8
France *n* = 120	88	17.9	32	6.7	100	12.2	20	13.8	83	13.7	37	10.3
Germany *n* = 130	85	17.4	45	9.5	122	14.9	8	5.5	63	10.4	67	18.7
Greece *n* = 15	0	.00	15	3.2	10	1.2	5	3.5	7	1.2	8	2.2
Ireland *n* = 25	2	.4	23	4.8	20	2.4	5	3.5	15	2.5	10	2.8
Italy *n* = 55	42	8.6	13	2.7	45	5.5	10	6.9	35	5.8	20	5.6
The Netherlands *n* = 55	42	8.6	13	2.7	50	6.1	5	3.5	45	7.4	10	2.8
Norway *n* = 35	10	2.0	25	5.3	33	4.0	2	1.4	18	2.9	17	4.8
Spain *n* = 90	65	13.3	25	5.3	80	9.8	10	6.9	85	14.0	5	1.4
Sweden *n* = 40	5	1.0	35	7.4	30	3.7	10	6.9	10	1.7	30	8.4
Switzerland *n* = 70	35	7.1	35	7.4	62	7.6	8	5.5	45	7.4	25	7.0
The United Kingdom *n* = 230	73	14.9	157	33.0	203	24.7	27	18.6	152	25.0	78	21.8

donations, as credible practices and value them (Groening & Kanuri, 2018), so Hypothesis 5 is supported. The results show that belonging to the industrial sector strengthens the relationship of market value with donations but not for commercial firms, thus rejecting Hypothesis 6. Finally, the results for Models 4 and 5 show that the business sector moderates the relationship between external and internal assurance and market value. Belonging to the industrial sector reinforces the association of market value with external and internal assurance, supporting Hypotheses 6 and 7.

We performed a robust analysis by considering other measurement of financial performance. First, we repeated the analysis with variables that did not take into account market (ROA, ROE) but obtained no results. Therefore, we took two new measures that considered market value. We introduced stock returns and price to earnings and obtained for the former very similar results to Tobin's Q, but Tobin's Q was more explanatory than stock returns. The results for the price-to-earnings ratio were poor.

5 | DISCUSSION AND CONCLUSION

The results show a positive relationship between corporate philanthropy managed through foundations and market value. Managing it through donations, however, is not taken as a reliable and trustworthy signal (Luffarelli & Awaysheh, 2018). The separation of the different ways of managing philanthropy shows that the market values positively the professionalisation of philanthropy compared to taking sporadic or discretionary actions. There is a relationship between corporate philanthropy practices, but when we consider them separately, management through foundations is determinant in the market value, and management through donations is not. Management through foundations is thought to be integrated into the firm strategy (Brammer et al., 2006) and evaluated by the investor as a signal of consistency (Ferreira, 2017), credibility, and professionalism, and it favours transparency (Abdelmotaal & Abdel-Kader, 2016; Bereskin et al., 2016), affecting market value positively.

TABLE 4 Results of regression analysis. Dependent variable Tobin's Q (market value)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coef.	***SE***	**coef.**	***SE***	**Coef.**	***SE***	**Coef.**	***SE***	**Coef.**	***SE***
Foundation	.559**	.272	.182	.350	.529**	.270	.390*	.277	.526**	.269
Donations	−.003	.002	−.003	.002	−.009**	.003	−.002	.002	−.003	.002
CSR committee	.146	.279	.155	.277	.132	.276	−1.141*	.579	.098	.276
External assurance	.436**	.204	.465**	.203	.513**	.206	.523**	.203	.082	.252
Sector	−.239	.235	−.671*	.346	−.679**	.321	−1.584***	.581	−.723**	.312
Zone	−.339	.559	−.234	.559	−.425	.556	−.384	.550	−.540	.558
Size	1.283**	.586	1.304**	.583	1.38**	.583	1.163**	.578	1.465**	.583
Profitability	−.004	.012	−.005	.012	−.004	.012	−.003	.012	−.002	.012
Risk	−.0003	.001	−.0003	.001	−.0001	.001	−.0003	.001	−0.0001	.001
Foundation * Sector			.647*	.382						
Donations * Sector					.009**	.005				
CSR Committee * Sector							1.467**	.582		
External assurance * Sector									.718**	.309
Constant	−19.53**	9.95	−19.67**	9.89	−20.98**	9.88	−16.29*	9.86	−22.35**	9.88
AR(2) Arellano–Bond test (*p* value)	.665		.403		.553		.356		.876	
Hansen test(*p* value)	.994		.916		1.000		.873		.998	

Note: 965 observations. Estimated coefficients, associated standard errors, Arellano–Bond test for AR (2), and the Hansen over identification test provided. Model 1 takes into consideration the relationship between the dependent and independent variables. Models 2–5 include the effect of moderating the variable sector on foundations, donations, CSR committee, and external assurance, respectively. Significance levels: **p* < .10; ***p* < .05; ****p* < .01.

The relationship between foundations and market value highlights the importance of integrating philanthropy within the core business (Zerbini, 2017) rather than using sporadic practices (Chen et al., 2008) to affect the firm's market value. Philanthropy managed through foundations is more stable, which facilitates the achievement of social goals (Brown et al., 2006; Rothenhoefer, 2019). The market may identify with this policy or perceive it to have positive effects, such as improving relations with stakeholders or anticipating future firm profits (Bae et al., 2018; Moratis, 2018). In addition, the market may consider that if the firm expresses concern for the well-being of the community, this will extend to other stakeholders, including shareholders (Groening & Kanuri, 2018).

Consideration of the moderating role of sector highlights interesting factors. Model 1 shows that investors value companies managing their philanthropy through foundations regardless of the sector in which they operate, but when we include sector as a moderating factor, Models 2 and 3 show that in the case of industrial companies, both foundations and donations affect market value positively (Peterson & Su, 2017). Corporate philanthropy is more valued by industrial firms' investors (Jia & Zhang, 2014). Investors perceive the underlying intentions of industrial firms' different corporate philanthropy practices (both foundations and donations) as credible, and they have a positive effect on market value. Perhaps industrial firms are responding to a demand to develop social commitments (Aqueveque et al., 2018) to legitimate their activities (Liket & Mass, 2016) or give back to communities because of their use of resources (Peterson & Su, 2017). Investors react differently to corporate philanthropy depending on the business sector (Groening & Kanuri, 2018; Muttakin et al., 2015). The moderating role of sector reinforces the results obtained about corporate philanthropy, showing that sector constitutes a differential factor when analysing the effect of corporate philanthropy on the market.

On the other hand, the results show differences between the effects of internal and external assurance of corporate philanthropy on the market value. There is a positive relationship between external assurance and market value, showing its importance in decision making (Martínez-Ferrero & García-Sánchez, 2017). One possible explanation for this outcome is that the incorporation of external supervision facilitates the monitoring of the company's achievement of its social objectives (Simnett et al., 2009) and its compliance with norms and widely accepted standards (Cnaan et al., 2011; Shafer & Lucianetti, 2018). In addition, the existence of control and assurance measures ensures the transparency and veracity of the information disclosed (Becker, 2018; Eberhardt-Toth, 2017). Therefore, information asymmetries are reduced, and investor confidence is raised, which contributes to an increase in the firm's market value.

While external assurance is considered as a signal of credibility and quality, the internal supervision of philanthropy is not associated with market value. Internal supervision is not considered by investors as a signal of the integration and safeguarding of stakeholders' interests in the company's decision-making processes (Dias et al., 2017). One explanation for this could be that external assurance is more relevant to investors than is internal assurance, so only the former is significant in the model. Perhaps investors suppose that external assurance needs internal control procedures that assure the implementation of social commitments (Bell et al., 2012). The results show that the existence of a CSR committee that ensures the integration of social practice into the strategy is not valued by investors (Abdelmotaal & Abdel-Kader, 2016).

If, however, we take into account the moderating effect of sector on external and internal assurance mechanisms (Models 4 and 5), the results show that sector is a moderating factor in the relationship between both types of assurance of social practices and market value (Sierra et al., 2013). When we introduced differentiation between sectors, the results showed that, for industrial companies, the effect of external assurance on market value is determinant, and we find the same situation when we consider internal supervision. Compliance with standards gives credibility to firms' commitment to social issues (Moratis, 2018), as does the fact that there are corporate governance structures in place to oversee the company's social commitments (Certo, 2003; Zerbini, 2017).

The results obtained in Models 4 and 5 show that for investors the assurance signals are relevant and credible when they are related to industrial companies. In sensitive sectors, such as the industrial one, control by a CSR committee is considered sufficient by investors, and the same results can be applied to external assurance (Amor-Esteban et al., 2018; Sierra et al., 2013). There is an understanding that supervision underpins a firm's credibility, which is positively valued by the market. In industrial companies, the internal and external mechanisms of supervision are perceived by investors as safeguarding their interests, reducing asymmetries of information, and decreasing errors in decision making (Bansal et al., 2018). In commercial companies, however, the use of philanthropy seems to be associated with efforts to enhance the firm's image or reputation (Haski-Leventhal & Foot, 2016), and internal supervision mechanisms are not considered as a good signal by investors. As Model 1 shows, in commercial companies, market value is affected only in the case of external assurance. Perhaps investors in this sector seek to ensure that the philanthropic policy is verifiable rather than an effort towards a goal of corporate image improvement (Peterson & Su, 2017).

The present study supposes various theoretical and practical contributions. In the first respect, our results support and extend signalling theory, proving it to be a suitable theoretical framework for studying social initiatives. This framework allows us to consider philanthropy and its assurance as firms' strategic signals. The trend of studying social factors from the perspective of signals has grown in recent years, but research in the area of philanthropic actions remains scarce. Considering corporate philanthropy and its assurance as signals makes it possible to position them relation to stakeholders, including investors. This theoretical framework, signal theory, provides a broader view of the complex reality of the market and fits better than others that have traditionally been used, such as the theory of stakeholders or the theory of legitimacy. This research supposes a contribution in the area of social policies.

This study contributes to the strategic consideration of corporate philanthropy in that it is a novel approach in CSR research. When undertaking corporate philanthropy, therefore, companies should take into account that their actions not only affect the community towards which their actions are directed but will also be assessed by investors, who value transparency and might associate greater concern for the community with a greater commitment to all other stakeholders, including shareholders (Groening & Kanuri, 2018). Social actions and assurance mechanisms indicate that firms take into account and aim to meet the expectations and demands of stakeholders and society.

The results contribute to proving that, in order to obtain a better picture of reality, philanthropic strategies, and their assurance must be studied together. They have been studied separately in the literature as signals that reduce asymmetries between signaller and receiver, but they must be considered together to better explain the variations of the market value. Studies about different ways to manage philanthropic strategies have been limited, with little research on foundations, even though today they are a very common means of managing resources to social commitments. The joint consideration of both types of corporate philanthropy enables knowledge about which type is most valued by the market: in this case, that managed through foundations. The results show that managing philanthropy through foundations sends a signal of consistency and trust and that investors take this into account in their decisions. By contrast, the management of philanthropy through donations is not perceived as an integral signal of social performance, except in the case of sensitive sectors like the industrial sector.

Moreover, the research contributes to filling a literature gap, because the differentiation between assurance mechanisms has been little studied and the incidence on market value differs. Measures like the assurance of social information and the supervision of philanthropic performance are usually aimed at convincing investors of the reliability of the social actions taken (Connelly et al., 2011). The signals issued by external parties about the adequacy of social policies to meet objective standards enhances their credibility (Shafer & Lucianetti, 2018). Although the literature relates to better-governed firms with a certain degree of trust and perceived reputation (Certo, 2003), within our context this is not a relevant factor. Investors consider external assurance to be a better signal of confidence and consistency than internal mechanisms of control.

Therefore, the results provide an additional contribution related to the fact that sector is a relevant element that highlights the greater importance for industrial companies of the assurance of social features. As far as we know, this study is the first empirical research to extend the investigation of the moderation effect of sector on the relationship between corporate philanthropy assurance and market value. Industrial companies are more sensitive to philanthropic actions and more likely to ensure them. This might be a form of compensation for the environmental effects of their actions (Fuente et al., 2016). The paper corroborates the fact that the demand for assurance is higher among industrial companies (Sierra et al., 2013; Simnett et al., 2009).

In terms of the practical implications of our findings, this research shows that the management of corporate philanthropy through a foundation is positively reflected in the firm's market value, regardless of the business sector in which it operates. In general, the corporate philanthropy of commercial companies tends to be less predictable and less stable (Chen et al., 2008), but when their philanthropic effort is channelled through a foundation, there is an incidence on market value. In addition, we found that being an industrial firm reinforces the effect of corporate philanthropy on market value. This finding can help companies decide on the most effective way to organise their social actions.

A company's implementing mechanisms to control and supervise its corporate philanthropy has positive repercussions for the firm's market value. When its investors feel more secure, the value of the company tends to rise. The fact that the philanthropic activity is controlled or supervised corroborates its reliability. Nevertheless, the assurance of practices and the existence of supervision committees do not form part of current general practice, a stance that should be reconsidered in view of our findings that supervision mechanisms, both internal and external, have an important effect on the valuation of industrial firms in the market.

This study has certain limitations. First, further research is needed on the ways corporate philanthropy management may be affected by other mechanisms of corporate governance, such as the existence of independent directors or the ownership structure of the company. Second, we have focused on European companies. We can extend the sample to consider other countries that can enrich the study.

This study presents implications for future research. In addition to the effect on the market, the incidence of corporate philanthropy in the creation of value in the medium and long terms should be analysed. In addition, the introduction of compulsory non-financial information supposes the possibility of studying corporate philanthropy together with other unobservable resources fundamental to value creation and of proposing new measures and tools to analyse them jointly. Further research is needed concerning the ways the strategic management of corporate philanthropy helps improve the relationship with the other main stakeholders (employees, community, and consumers) from a signalling perspective. Another useful line of enquiry would be to analyse the effects in this context produced by the mechanisms of corporate governance, such as the existence of independent directors, the ownership structure of the company, or
4 the interest of socially responsible investors.

CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest

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