Journal Code: C S R | Article ID: 1 5 1 5 | Dispatch: 0.0.1 | CE: | No. of Pages: 11 | ME:

Received: 5 June 2017 | Revised: 17 January 2018 | Accepted: 1 February 2018

DOI: 10.1002/csr.1515

RESEARCH ARTICLE

WILEY Corporate Social Responsibility and Environmental Management

Independent directors' background and CSR disclosure

Roberto Fernández-Gago | Laura Cabeza-García | Mariano Nieto

University of León, Department of Business Administration, León, Spain

Correspondence
Roberto Fernández-Gago, University of León, Department of Business Administration, Campus de Vegazana, s/n León 24071, Spain
Email: roberto.fernandez@unileon.es

Funding information
Ministerio de Economía y Competitividad, Grant/Award Numbers: ECO 2012-35439 and ECO 2012-36532; Universidad de León (Spain), Grant/Award Number: ULE2014-1; Ministerio de Economía y Competitividad of Spain, Grant/Award Numbers: ECO 2015-69058-R and ECO2015-63880-R

JEL Classification: G34; M14

Abstract

This paper extends research on how the background of independent directors may affect the way in which their companies disclose information about corporate social responsibility (CSR). Using a sample of 83 Spanish-listed firms over the period 2009–2014, the findings of a random effect probit model suggest that, in addition to board independence, having independent directors with political backgrounds and diverse education has a positive impact on their firm's probability of issuing a CSR report following the standards of the Global Reporting Initiative.

KEYWORDS

CSR disclosure, CSR reporting, Global Reporting Initiative, independent directors' background

1 | INTRODUCTION

Corporate social responsibility (CSR) has become an issue of public, academic, and management debate worldwide. Companies must take responsibility for the impact of their activities on society and become accountable to more than just their shareholders and creditors (Hackston & Milne, 1996). CSR makes it necessary for companies to find a balance between financial and non-financial goals and to assume a higher level of accountability by issuing specific reports on their economic, environmental, and social performance. Thus, the scope of disclosure by firms has expanded to satisfy the needs not only of their shareholders and creditors but also of other stakeholders, including customers, suppliers, and the government, as well as the general public (Kilic, Kuzey, & Ali, 2015). However, reporting in itself may not be enough as stakeholders must be made aware of companies' CSR activities and overcome their initial scepticism, so how this information is communicated may be vital (Du, Bhattacharya, & Sen, 2010). In order for CSR communication to be effective, it must be tailored to the specific needs of the different stakeholder groups. Adherence to reporting standards such as those of the Global Reporting Initiative (GRI) will help increase the credibility of a CSR report (Dawkins, 2004) and convince opinion leader audiences such as legislators, the business press, investors (both mainstream institutional investors and the socially responsible investment or SRI community), and non-governmental organizations.

When referring to CSR determinants, the impact of the board of directors on CSR policies and practices has received special attention. Among the desirable features of a board of directors is the inclusion of some independent members. This ensures more effective control of the senior management (Hermalin & Weisbach, 1998) and has a decisive influence on the design of strategies for CSR actions (Jo & Harjoto, 2011) or disclosure (Khan, Muttakin, & Siddiqui, 2013). Some previous papers have shown a relationship between the number of independent directors and CSR disclosure. Nevertheless, as far as we are aware, no previous studies have considered how relevant diversity among these directors might be. Corporate governance codes around the world, including the latest Spanish code [Comisión Nacional del Mercado de Valores, 2015], as well as recent research on corporate governance (e.g. Ben-Amar, Francoeur, Hafsi, & Labelle, 2013) tend to recommend increasing board diversity, regarding knowledge and experience among other characteristics, arguing that such diversity both enhances information resources and broadens the cognitive and behavioural range of the board.

Thus, building on the above-mentioned research gap, our study provides empirical evidence on how some characteristics of independent directors related to diversity, more specifically their political and educational background, help explain why companies report on CSR following the GRI guidelines. Political background has been directly related to CSR in previous studies focusing on chief executive officers (CEOs) (Li, Xianzhong, & Huiying, 2015; Petrenko, Aime, Ridge, & Hill, 2016), chairmen (Zhang, Marquis, & Qiao, 2016), or members of the board (Carretta, Farina, Gon, & Parisi, 2012). Similarly, previous studies have considered the education of CEOs (Lewis, Walls, & Dowell, 2014) or directors (Rahman & Bukair, 2013; Yasser, Mamun, & Ahmed, 2017). However, none of these works consider the importance of these two characteristics in the specific case of independent directors, and the relevance for CSR of such directors justifies the research presented in this paper.

The empirical analysis was carried out on a sample of 83-listed Spanish firms over the period 2009–2014. We employed the panel data methodology and, more specifically, we developed a random effect probit model using lagged values of the explanatory variables in order to control for a possible endogeneity problem, which had not always been considered in similar studies. The analyses included direct relations among the variables as well as moderation effects.

The rest of the paper is structured as follows. The second section poses the hypotheses to be tested, based on a review of the literature and the existing empirical evidence. The sample, the measurement of the variables, and the methodology are described in the third section, followed by the results. Finally, the last section offers the conclusions, discusses their implications, and proposes future lines of research.

2 | THEORETICAL BACKGROUND AND HYPOTHESES

Chang, Oh, Park, and Jang (2017) conducted an extensive review of the literature on board characteristics and CSR actions and disclosure and they agreed with Walls, Berrone, and Phan (2012) that agency theory (Jensen & Meckling, 1976) and resource dependence theory (Pfeffer & Salancik, 1978) are the dominant theories applied. As we explain below, stakeholder theory and legitimacy theory are also useful in the context of this research.

Agency theory exposes the risk of managers' self-serving behaviours and the need to monitor their decisions. In particular, separating ownership and control may indicate a lack of alignment between shareholders' long-term interests and those of managers. Since the cost of CSR initiatives is hard to recoup in the short term (Burke & Logsdon, 1996), opportunistic managers are unlikely to favour them. For this reason, higher levels of outsider representation or board independence, which can be assumed to pursue the long-term success of the firm, may be positively related to CSR (Harjoto & Jo, 2011; Johnson & Greening, 1999). Moreover, agency theory focuses on asymmetries of information, and disclosure in general and CSR reporting in particular help reduce such asymmetries between managers and investors (Reverte, 2012).

Stakeholder theory (Freeman, 1984) acknowledges the responsibilities that firms have not only towards their shareholders but also towards other parties that may affect or be affected by the achievement of the firm's objectives. Proper management of relationships with all such groups or individuals will be required for long-term success, and corporate governance may be the foundation upon which good CSR practices can be built (Wang & Dewhirst, 1992; Welford, 2007). Thus, good corporate governance ensures that boards are accountable to all shareholders and respect the legitimate interests of other stakeholders (Welford, 2007). In particular, independent directors, given their strong stakeholder orientation, may enhance the quality of monitoring in critical decisions and promote CSR (Li, Pike, & Haniffa, 2008; Sánchez, Sotorrío, & Díez, 2011; Wang & Dewhirst, 1992).

Resource dependence theory (Pfeffer & Salancik, 1978) focuses on a board's role in ensuring the flow of critical resources to the firm, unlike agency theory which focuses on the board's monitoring role. Stakeholder theory finds strong connections with resource dependence theory when studying the relation between board diversity and CSR. In general, diverse backgrounds of directors are considered a ‘useful’ resource for stakeholder management as they provide a better understanding of multiple stakeholders' interests and demands, and, consequently, help the firm to engage better in CSR (Chang et al., 2017).

Finally, based on legitimacy theory, if director independence and diversity favour CSR disclosure, they may also contribute to the firm's survival. Suchman (1995, p. 574) defines legitimacy as ‘a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions’. Firms have no inherent right to exist, so they need the society that they are inseparable from to confer legitimacy to them. Social activities are usually expected from a good corporate citizen and may help legitimate corporate actions (Reverte, 2009). Specifically, disclosure of CSR information is a way to meet stakeholders' demands and helps create and maintain their support and approval (Carnevale & Mazzuca, 2014; Martínez-Ferrero, Ruiz-Cano, & García-Sánchez, 2016; Odriozola & Baraibar-Diez, 2017), resulting in the hoped for legitimacy.

After this general theoretical framework, the following two subsections include detailed arguments relating certain directors' characteristics with CSR reporting. First, attention is drawn to board independence, given its relevance for the issue addressed here. We then provide an insight into diversity specifically among independent directors. Anderson, Reeb, Upadhyay, and Zhao (2011) classified board heterogeneity as social (e.g. gender, age, and ethnicity) and occupational (e.g. education, experience, and profession). Cho, Jung, Kwak, Lee, and Yoo (2017) stated that, according to the extant literature, it is the former that influences corporate social performance the most, but they claim that the latter is also important and they study the potential impact of professor directors and their academic background. Our focus is also upon two aspects of occupational diversity: a political background, which is especially important in contexts like Spain where around half of listed firms have at least one ex-politician on the board (Guerra-Pérez, Bona, & Santana, 2015); and an educational background, with special attention on the kind rather than the level of education received by directors. To date, both these characteristics have generally been overlooked despite their potential impact for CSR disclosure.

2.1 | Board independence as a determinant of CSR disclosure

The presence of independent directors on the board is considered to be a major corporate governance mechanism (Khan et al., 2013) as they can improve supervision of the management team (De Andres & Vallelado, 2008) and foster board effectiveness (Rao, Tilt, & Lester, 2012; Said, Zainuddin, & Haron, 2009). Not only do independent directors help guarantee that the company acts in the best interests of its shareholders, but they may also help reduce conflicts of interest amongst stakeholders (De Andres & Vallelado, 2008).

Coming from outside the firm, independent directors play a special role in ensuring observance of the law and in defending minority shareholders' interests (Fama & Jensen, 1983), and they have closer relations with stakeholders, know their expectations better, and are more likely to meet their demands (Ibrahim & Angelidis, 1995). Boards with more independent directors will motivate companies to engage in CSR activities in accordance with societal values (Haniffa & Cooke, 2005; Khan, 2010). They also know the environment better and are usually more efficient in controlling external contingencies (Fernández-Gago, Cabeza-García, & Nieto, 2016). Moreover, the image and reputation of independent directors may be linked to the ethical and responsible behaviour of their firms. According to Zahra and Stanton (1988), this is the reason why independent directors are especially interested in showing compliance with regulations and are more concerned about the socially responsible behaviour of their companies. As a result, boards with more independent directors are more likely to ensure that their companies behave in a more socially and environmentally responsible manner (Rao et al., 2012).

The presence of external directors may also be a determinant for information disclosure (Chen & Jaggi, 2000; Cheng & Courtenay, Q14 2006; Prado-Lorenzo, Gallego-Alvarez, & García-Sánchez, 2009). Amran, Pink, and Devi (2014) stated that greater board independence encourages an organization to assume a higher degree of accountability and transparency. This includes the disclosure of higher-quality information, which aids stakeholders to make better-informed decisions. Recent studies have shown that the disclosure of CSR information may be influenced by boards of directors (Hertz, Brown, & Scott, 2012; Michelon & Parbonetti, 2010), so their composition in terms of the number of independent directors may be decisive. With some exceptions (Amran et al., 2014; García-Sánchez, Cuadrado-Ballesteros, & Sepulveda, 2014; Sundarasen, Je-Yen, & Rajangam, 2016) and nuances found in this relationship (García-Sánchez & Martínez-Ferrero, 2017), previous empirical studies support a positive influence Q15 (Barako & Brown, 2008; Khan, 2010; Khan et al., 2013; Kilic et al., 2015; Lone & Khan, 2016; Rao et al., 2012). Therefore, we propose the following hypothesis:

> H1 *The presence of independent directors favours CSR reporting*.

2.2 | The relevance of the characteristics of independent directors

Having proposed that the presence of independent directors may influence CSR disclosure, we now go a step further by analyzing the importance of some of their characteristics: political and educational background. Based on the previous literature and existing arguments, we focus on the relevance of these characteristics for CSR in general and CSR disclosure in particular. As our analysis is focused on independent directors, we consider that their characteristics may have a dual impact. Thus, we first pose a direct effect on CSR disclosure. We then also admit the possibility that the impact of board independence on CSR disclosure might be stronger or weaker, that is, might be moderated, depending on the specific characteristics of the independent directors.

2.2.1 | Political background

A firm can be considered politically connected when those in charge of the important decisions, that is, CEOs, managers, or directors, hold political ties or have a political background (Bai, 2013; Höllerer, 2013; Jia & Zhang, 2013; Li et al., 2015; Marquis & Qian, 2014). Previous Q16 economic literature has noted how having political connections can impact firms' future. Governments can influence businesses' behaviour Q17 and their context in many different ways. Political connections can be considered strategic assets (Hillman, 2005; Siegel, 2007) and, as such, good use of them can yield better performance and value (Agrawal & Knoeber, 2001; Fisman, 2001; Johnson & Mitton, 2003). Lighter taxa- Q18 tion, preferable treatment in competition for government contracts, favourable regulatory conditions, and access to information and resources such as bank loans or mitigated uncertainty are some of the benefits that a firm with political connections may enjoy (Agrawal & Knoeber, 2001; Faccio, 2006; Hillman, 2005; Wang & Qian, 2011). Q19

The reciprocity principle in social relationships suggests that businesses may be able to benefit from their political connections, but it probably implies that governments will expect something in return (Aronson, Wilson, & Akert, 2005). This payback for current and future government support may take the form of business activities with a clear social purpose, such as corporate philanthropy (Li et al., 2015). Q20 Representatives who are politically connected will be the most likely to understand this reciprocal relation and induce their companies to act in accordance. Apart from reciprocity, governments may intervene to make firms assume more social responsibilities, and such intervention will be more severe when firm representatives are politically connected (Fan, Wong, & Zhang, 2007).

Moreover, social performance helps reduce the political cost that might arise from tarnished reputation and diminished legitimacy (Banks, Paterson, & Wendel, 1997; Porter & Kramer, 2006). Firms with political ties are subject to greater scrutiny and will be expected to take on greater social responsibility (Dickson, 2003). So, in order to prevent the risks associated with irresponsibility, they will have stronger incentives to invest in corporate social practices (Jia & Zhang, 2013). In contrast with this reasoning, the presence of political representatives might help manage community and social expectations and mitigate legal liability, in which case social performance would not need to be promoted (Bai, 2013).

In the specific context of CSR reporting, Marquis and Qian (2014) propose that firms with political connections are more likely to respond to government pressure for CSR reporting. Corporate representatives will lead their companies to show their commitment to government initiatives.

We assume that independent directors holding a political office while on the board or who had previously held a political office have the political connections mentioned above and are especially aware Q21 of the reputational risks that social irresponsibility may bring. By considering this characteristic of directors, we take into account their contribution to the collective experience (Bear, Rahman, & Post, 2010) and the increase in demographic diversity with heterogeneous occupational background, which may improve board decisions relating to social issues (Zhang, 2012). Q22 In line with all the arguments above, we propose the following hypotheses:

> H2a : *The presence of independent directors with political backgrounds favours CSR reporting*.

> H2b : *The presence of independent directors with political backgrounds moderates positively the relation between board independence and CSR reporting*.

2.2.2 | Educational background

A diverse educational background among independent directors is the second characteristic that we consider in this paper as an important determinant of CSR disclosure or of the impact of board independence on CSR disclosure. Although this proposal is fairly novel, there are some well-founded reasons to sustain it.

In general, educational background can be considered an important factor in disclosure practice (Haniffa & Cooke, 2002). Specifically, the level of education may influence CSR disclosure (Farook, Hassan, & Lanis, 2011), but it may be not only the level but also the nature of education that matters. According to Ben Barka and Dardour (2015), directors' profile is a significant factor when evaluating the adoption of CSR practices. Among the elements that determine this profile, the education received plays an important role for two main reasons.

Firstly, the process of education confers knowledge and experiences on individuals, shaping how they think and what they stand for when making decisions. Godos-Díez, Fernández-Gago, and Cabeza-García (2015) showed how business education, in comparison with other degrees, may affect the way in which stakeholders' interests are considered and moral judgments are made. Everything related to social performance is directly connected with stakeholder orientation, and CSR disclosure is no exception. Manner (2010) and Huang (2013) found that a CEO's educational specialization has an impact on the firm's CSR performance. More specifically, a Master of Business Administration degree and legal education, Q23 the most common educational backgrounds for CEOs of large firms (Felicelli, 2008), are particularly relevant for decisions about voluntary disclosure (Lewis et al., 2014). Nevertheless, how educational background affects a firm's voluntary disclosure practices has rarely been addressed (Lewis et al., 2014).

Secondly, depending on the kind of education received, different specialized skills are developed, which will probably determine professional experience. Some works have stressed the specificity of lawyers (De Villiers, Naiker, & Van Staden, 2011; Kassinis & Vafeas, 2002), which makes them more aware of the risks and consequences of certain practices such as noncompliance with environmental requirements. Ben Barka and Dardour (2015) categorized directors as financial directors, engineers and scientists, lawyers, economists, or in other literary and philosophical occupations in an attempt to find out how directors' profile contributes to the adoption of CSR. Chang et al. (2017) distinguished between degrees in business and economics, social science, natural science and engineering, and applied science, with their relation to CSR being more complex and diverse depending on the cultural context. Given the complex and diverse composition of CSR, diversity of functional background can be expected to draw greater attention to the firm's social performance in general (Hafsi & Turgut, 2013) and to CSR disclosure in particular.

Considering the above ideas, these are the hypotheses proposed: Q24

> H3a : *The presence of independent directors with diverse educational backgrounds favours CSR reporting*.

> H3b : *The presence of independent directors with diverse educational backgrounds moderates positively the relation between board independence and CSR reporting*.

3 | METHOD

3.1 | Sample and data

Our database is composed of Spanish firms listed on the Madrid Stock Exchange General Index, taking 31 December as the date for compo- Q25 sition of the index for the years 2009–2014. Spain has been considered an appropriate choice for researching issues related to CSR reporting due to its advanced position in this field (Odriozola & Baraibar-Diez, 2017; Sierra, Zorio, & García-Benau, 2013). Q26 Financial and insurance companies were excluded from the initial database because of their particular characteristics, such as their specificity from an accounting point of view, or because of the regulation or structure of these markets (26 firms, 114 observations). We also excluded subsidiary firms (a company that is more than 90% owned by another listed firm in the sample) (1 firm, 3 observations). As a result, and taking into account that some companies entered and others exited the stock market during the period considered, the final database was an unbalanced panel composed of 111 non-financial and non-insurance firms and 661 observations. Finally, we lagged the explanatory and control variables to control for endogeneity and made the corresponding eliminations in order to have at least four consecutive years of data for every company, as is advisable for panel data structure, and to keep the same size in all the models. All this reduced the final sample for the probit analyses to 83 firms and 477 observations.

The information on CSR disclosure was extracted from the GRI database. Corporate governance data were obtained from the corporate governance reports that firms provide to the CNMV, which is the agency in charge of supervising and inspecting Spanish stock markets. The biographical information of the independent directors was taken from the reference publication 'Who is Who' and from an Q27 exhaustive search of the internet. The companies' financial information and data on their sectors of activity were obtained from the financial reports provided by the CNMV and from the database of the Sociedad de Análisis de Balances Ibéricos.

3.2 | Measures

3.2.1 | Dependent variable

Our dependent variable is an indicator of CSR disclosure (GRI). More specifically, it is defined as a dummy variable that takes a value of one if the company issues a report for the corresponding year following the GRI guidelines and zero otherwise. The GRI is an organization made up of thousands of experts from all over the world that draws up a set of guidelines for improving the production and clarity of transparent, reliable, and comparable sustainability reports. Its prime objective is to disclose social, environmental, and economic information and it helps measure real efforts to achieve sustainability (Alonso-Almeida, Llach, & Marimon, 2014). The GRI has emerged as a dominant player in the field of international sustainability standards (Etzion & Ferraro, 2010; Waddock, 2008), with 74% of the world's 250 largest corporations following its guidelines (KPMG, 2015, p. 42). Consequently, the GRI has received substantial attention in academic publications (e.g. Brown, De Jong, & Lessidrenska, 2009; Levy, Brown, & De Jong, 2010; Nikolaeva & Bicho, 2011; Vigneau, Humphreys, & Moon, 2015) and has been used in empirical analyses on samples of listed companies like ours (e.g. Gallego, 2006; Mio, 2010; Prado-Lorenzo, Gallego-Alvarez, & García-Sánchez, 2009; Prado-Lorenzo, García-Sánchez, & Gallego-Alvarez, 2009; Romolini, Fissi, & Gori, 2014).

3.2.2 | Explanatory variables[1]

The main explanatory variable is related to board independence, measured as the percentage of independent directors (INDEP) (García-Sánchez et al., 2014; Khan et al., 2013; Kilic et al., 2015). Other explanatory variables take into account independent directors' background. POLITICS indicates the percentage of independent directors who ever held a political position either by election or appointment. Additionally, a continuous variable (EDUCATION) was created to measure in percentage terms the diversity of degrees among independent directors, that is, it was checked which university degree each of the independent directors had and the total number of different degrees was divided by the number of independent directors on the board. It must be noted that closely related degrees such as business administration, finance, or economics were considered in the same category because they probably lead to directors adopting a very similar approach when making decisions.

3.2.3 | Control variables

Four variables at firm level and one more at board level were included in the analysis.

Firstly, final behaviour regarding CSR issues and the extent to which these are communicated to stakeholders may depend on the available resources and profitability (Hackston & Milne, 1996; Roberts, 1992). Specifically, some previous studies have revealed how a firm's profitability improves sustainability reporting (Belkaoui & Karpik, 1989; Gray, Javad, Power, & Sinclair, 2001; Joshi & Gao, 2009; Legendre & Coderre, 2013; Li & McConomy, 1999). We took return on assets (ROA) for our analyses as an indicator of company performance.[2]

Secondly, larger companies are under greater pressure from stakeholders (Hackston & Milne, 1996) and publishing sustainability reports helps them legitimize their actions (Adams, Hill, & Roberts, 1998). The positive impact of company size on the quantity and quality of CSR information disclosed has been empirically proven (Da Silva Monteiro & Aibar-Guzmán, 2010; García-Sánchez, 2008; Legendre & Coderre, 2013; Patten, 2002; Prado-Lorenzo, Gallego-Alvarez, & García-Sánchez, 2009; Prado-Lorenzo, García-Sánchez, & Gallego-Alvarez, 2009; Sotorrío & Fernández Sánchez, 2010). In this work, firm size (SIZE) was measured as total assets in thousands of Euros and it was introduced in the analysis as a logarithm.[3]

Thirdly, voluntary disclosure may reduce agency costs for companies with a high level of debt (Jensen & Meckling, 1976), but creditors may exert less pressure on CSR activities and CSR disclosure when the level of debt is low because these are only indirectly linked to financial success (Brammer & Pavelin, 2008). Thus, we added leverage level (LEV) as a control variable and it was measured as the quotient between debt and total assets.

Fourthly, operating in industries that are high risk or have a potential negative impact on the environment may increase the information disclosed about it as a way of managing the organization's reputation risk (Bebbington, Larrinaga, & Moneva, 2008; Legendre & Coderre, 2013; Michelon, 2011; Reverte, 2009), so we included the sector of activity as a control variable. Using the primary and secondary SIC codes, SECTOR was created as a dummy variable taking a value of one if the sector could be considered as environmentally sensitive and zero otherwise (Kuo, Yeh, & Yu, 2012).[4]

Finally, we considered a numerical variable that represented the total number of directors on the board (BOARD_SIZE) and whose effect on GRI is hard to predict according to previous evidence. On the one hand, boards with a large number of directors may suffer from agency problems, slow decision-making or lack of unanimity (Rao et al., 2012), and may be less interested in disclosing information (Esa & Ghazali, 2012; Prado-Lorenzo, Gallego-Alvarez, & García-Sánchez, 2009; Prado-Lorenzo, García-Sánchez, & Gallego-Alvarez, 2009). On the other hand, more board members would lead to a greater exchange of ideas and experiences and to better advice (Dalton, Daily, Johnson, & Ellstrand, 1999). Larger boards are also more likely to include experts on specific issues such as environmental performance and there is a greater likelihood that board members will have been exposed to the effects on stakeholders of an environmental agenda. Directors with such exposure are likely to advise the rest of the board regarding the related challenges and opportunities (De Villiers et al., 2011).

3.3 | Methodology

It was necessary to choose a distribution function that could adequately represent the relationship between the explanatory variables and the probability of a GRI report being issued. Both the probit and logit estimation models can be suitable when the dependent variable is a dichotomous one. We show here the analysis corresponding to a random effect probit model, although, consistently with our

[1]Considering an endogeneity problem, explanatory and control variables were lagged by one year.

[2]We repeated the estimations considering ROE as a proxy for profitability and the results did not vary significantly.

[3]Using in the analysis the logarithm of total sales instead of total assets, the results remained the same.

[4]The sectors considered as environmentally sensitive were mining, oil, gas, chemicals, paper, iron and steel and other metals, electricity, gas distribution, and water.

expectations, when the estimations were repeated with a random effect logit model, the results were similar.[5] The model proposed is as follows:

$$GRI_{it} = a_0 + \beta X_{it-1} + \sum_{t=2009}^{2014} D_t + \mu_{it}$$

where i is the firm, t is the period of time, X_{it-1} denotes the explanatory and control variables of firm i in the year t-1, and $\sum_{t=2009}^{2014} D_t$ is a set of dummy time variables covering any non-variant time effect of the firm not included in the regression. Finally, μ_{it} is the error term $\mu_{it} = \gamma_i + \varepsilon_{it,}$ bearing in mind that γ_i covers the individual unobservable effect that we assume is constant for company i during t, that is, it captures the unobservable heterogeneity among companies.

It was also necessary to carry out several regression analyses to test the hypotheses proposed. Thus, model 1 analyses the influence of the main explanatory variable (INDEP) on the dependent one (GRI). Model 2 studies the impact of INDEP and the independent directors' characteristics (POLITICS, EDUCATION) on GRI. Finally, model 3 includes all the explanatory variables and the corresponding product terms to check the moderating effects. All the control variables and a set of dummy time variables covering any non-variant time effect were included in the three models.

4 | RESULTS

Table 1 shows the descriptive statistics for the companies in the analysis, while Table 2 lists the correlation matrix. The variance inflation factors remained under five (Hair, Black, Babin, & Anderson, 2010) for most of the variables in the three models. Only POLITICS and the interaction variable INDEP X POLITICS in model 3 did not meet this requirement, but they were under ten (Kennedy, 1992; Kleinbaum, Kupper, & Muller, 1998) so we assumed the absence of multicollinearity.

Table 3 summarizes the results of the regression analyses carried out. The results of model 1 show that companies with a higher percentage of independent directors (INDEP) tend to use the GRI guidelines more when it comes to disclose information about CSR practices (β = 0.047; p < 0.05). This result, supporting hypothesis 1, is in line with other previous and recent studies that suggest that the greater the board independence, the more likely it is that companies will emphasize societal interests and organizational legitimacy (Haniffa & Cooke, 2005), and disclose more CSR activities (Kilic et al., 2015). Similar results were found, for example, by García-Sánchez et al. (2014), concluding that in the Spanish context companies with more independent directors tend to disclose more standardized information about CSR practices following the GRI guidelines.

Having confirmed the relevance of independent directors, their experience in politics and educational background were introduced

[5]There is no statistic validity for a probit fixed effects model (Greene, 1999). When dummy variables are used, the fixed effect model does not identify why the linear regression changes over time and in different firms, with a reduction in the degrees of freedom.

TABLE 1 Descriptive statistics (n = 477)

Variables	Mean	Min.	Max.	St. Dev.
INDEP	35.931	5.555	88.888	15.502
POLITICS	13.673	0	100	19.112
EDUCATION	59.666	0	100	26.051
ROA	0.038	−0.305	0.497	0.089
SIZE	8,785,800	18,562.2	1.30e + 08	2.02e + 07
LEV	0.649	-6.268	1.437	0.372
BOARD_SIZE	11.115	4	21	3.179
	% (number of observations with value = 1)			
GRI	34.60 (165)			
SECTOR	26.00 (124)			

Note. GRI is a dummy variable that takes a value of one if the company issues a report for the corresponding year following the Global Reporting Initiative guidelines and zero otherwise. INDEP denotes the percentage of independent directors. POLITICS is the percentage of independent directors who ever held a political position either by election or appointment. EDUCATION measures in percentage terms the diversity of degrees among independent directors. ROA is the quotient between operating profit and total assets. SIZE denotes total assets in thousands of Euros. LEV is the quotient between debt and total assets. SECTOR is a dummy variable taking a value of one if the sector can be considered as environmentally sensitive and zero otherwise. BOARD_SIZE represents the total number of directors on the board.

in the analysis as explanatory variables (model 2).[6] Our results also supported hypothesis 2a, so it can be affirmed that a higher number of independent directors who were politicians in the past (POLITICS) favours the probability that the firm will issue a CSR report following the GRI guidelines (β = 0.028; p < 0.05). Jia and Zhang (2013) and Li et al., 2015using firms listed on the Shenzhen or Shanghai Stock Exchange, reported that political ties or politically connected companies are more likely to perform CSR activities and engage in philanthropic activities. Marquis & Qian, 2014 also supported these ideas as they found that firms whose CEOs were members of national political councils in China were also more likely to issue CSR reports.

Unlike the previous variable on independent directors' background, our results did not support the idea that a more diverse education among independent directors (EDUCATION) would be associated with more standardized CSR disclosure following GRI guidelines (model 2, Table 3). Therefore, hypothesis 3a was rejected.

In order to contrast the existence of moderating effects, we introduced in the regression analysis two terms of interaction formed by the product of the percentage of independent directors and each of the two characteristics of the directors that we wished to study (model 3). Only the interaction coefficient corresponding to educational background was significant (β = 6.40–04; p < 0.10), so hypothesis 2b was rejected while 3b was supported. The fact that EDUCATION was not significant in model 2 indicates that there is a pure moderation effect. The positive sign of the interaction coefficient reflects the increasing effect exerted by education diversity on the initial positive relation between independent directors and our proxy for CSR reporting. Independent directors with diverse educational backgrounds contribute to the company with their different skills, points

[6]The results for model 2 without the INDEP variable remained the same.

TABLE 2 . Correlation matrix (n = 477)

	1	2	3	4	5	6	7	8	9
1. GRI	1								
2. INDEP	0.154**	1							
3. POLITICS	0.150**	0.136**	1						
4. EDUCATION	−0.142**	−0.035	0.073	1					
5. ROA	0.172**	0.115*	0.000	−0.150**	1				
6. SIZE	0.638**	0.114*	0.106*	−0.263**	0.143**	1			
7. LEV	0.102*	−0.056	−0.017	0.000	−0.304**	0.257**	1		
8. SECTOR	0.072	0.233**	0.077	0.040	0.063	0.110*	-0.076†	1	
9. BOARD_SIZE	0.510**	−0.120**	0.057	−0.245**	0.020	0.654**	0.1433**	0.050	1

†p < 0.10; *p < 0.05; **p < 0.01.

Note. See Table 1 for a description of the variables.

TABLE 3 . Probit analyses results

Variables	Model 1	Model 2	Model 3
INDEP	0.047* (2.58)	0.044* (2.36)	0.042 (1.58)
POLITICS		0.028* (2.11)	0.056 (1.48)
EDUCATION		−0.007 (−0.82)	-0.028† (−1.91)
INDEP x POLITICS			−8.21-04 (−0.77)
INDEP x EDUCATION			6.40−04† (1.78)
ROA	8.282** (2.70)	9.231** (2.87)	9.251** (2.71)
SIZE	1.064** (4.13)	1.131** (4.14)	1.232** (4.22)
LEV	2.345 (1.30)	2.467 (1.27)	2.709 (1.31)
SECTOR	0.026 (0.22)	0.033 (0.26)	0.034 (0.25)
BOARD_SIZE	0.254* (2.12)	0.264* (2.09)	0.319* (2.28)
Annual effect considered	Yes	Yes	Yes
Log-likelihood	−116.995	−113.996	−112.134
Wald chi^2	40.90**	40.76**	40.66**
Sigma_u	2.561	2.788	3.120
Rho	0.868	0.886	0.907
LR test rho = 0	107.18**	107.48**	105.40**
z_1	35.32**	35.90**	37.50**
z_2	22.60**	22.68**	21.96**
No. of observations	477	477	477
No. of firms	83	83	83

†p < 0.10; *p < 0.05; **p < 0.01.

Q35 *Note*. The dependent variable takes a value of one if a company issues a report following Global Reporting Initiative guidelines (t-statistic). Z_1 is a Wald test for the reported coefficients of the explanatory variables, asymptotically distributed as χ^2 under the null of no relationship for all the explanatory variables. Z_2 is a Wald test of the joint significance of the time dummies, asymptotically distributed as χ^2 under the null of no relationship. Note that the parameter Q36 rho shows a correlation between error terms corresponding to the same individual over a different period of time. Moreover, the likelihood ratio test is significant, meaning that there is an individual random effect, which confirms that the random effects model is appropriate. See Table 1 for a description of the variables.

of view, and sensitivity towards social issues and this may be the reason for the moderating effect found in the analysis.

As to the control variables, the results show a positive and significant influence of firm profitability (ROA) on the adoption of GRI guidelines. Although this differs from the results of Prado-Lorenzo, Gallego-Alvarez, and García-Sánchez (2009), who did not find a significant effect in the Spanish context, it is in line with Legendre and Coderre (2013) for a multinational sample. Moreover, as in the latter or in Prado-Lorenzo, García-Sánchez, & Gallego-Alvarez, 2009 for Spanish firms, we also found that firm size (SIZE) positively influences CSR reporting in accordance with the GRI guidelines. Larger companies not only are potentially more likely to generate social and environmental but they also have more resources for drawing up this Q37 kind of information.

In addition, and contrary to García-Sánchez et al. (2014), our analyses revealed that firms with a larger board size (BOARD_SIZE) are more likely to issue a GRI report. This result is similar to those found by Siregar and Bachtiar (2010), Esa and Ghazali (2012), and Rahman and Bukair (2013), suggesting that larger boards with collective knowledge and experience will lead to greater CSR disclosure.

Finally, regarding annual effects, dummies for years 2009, 2010, 2011, and 2012 are positive and significant in all the models. This means that, *ceteris paribus*, in those cases the specific year influenced the dependent variable in a different and positive way in comparison with the situation existing in the reference year 2014.

5 | CONCLUSIONS

Based on previous empirical studies that suggest a positive and significant role is played by independent directors in relation to CSR reporting, our study tries to go a step further by analyzing certain characteristics. The results obtained from a sample of 83 Spanish-listed companies during the period 2009–2014 confirmed the positive effect of board independence on the probability that a CSR report following the GRI guidelines would be issued, but they also indicate that if independent directors have a political background, then their firm would be more likely to follow such reporting standards. Although no significant direct effect on CSR disclosure was found when looking into the diversity of independent directors' educational backgrounds, such diversity does reinforce the relevance of board independence.

Some important implications can be drawn from this study. In the first place, in line with previous empirical studies, our results insist on the need for scholars and professionals to consider the presence of independent directors as a potential determinant of CSR reporting. Companies should be aware of the relevance of board independence not only in order to comply with shareholders' expectations regarding financial performance but also to properly face up to their social responsibility and the requirement for transparency.

Secondly, with regard to independent directors, our results reveal the importance of a political background and diverse educational backgrounds. Directors who are politically connected know best how social activities and information transparency can lead to benefits of different kinds for firms that enjoy an advantageous relation with the government. In addition, firms with political ties are more likely to take on greater social responsibility and disclose their practices because they are subject to additional pressure. Furthermore, as stated above, having independent directors is beneficial for CSR reporting, but if they are from diverse educational backgrounds, then they will be better prepared for the complexities of CSR, which will expand their impact.

We believe that the main implication of these results is the need for more complex research models which not only analyze board independence as a separate and isolated factor influencing CSR but also consider certain relevant characteristics of independent directors and propose interaction effects.

Some limitations may also be mentioned. Firstly, adherence of firms to the standards of the GRI is considered a rigorous measure of socially responsible reporting, but more elaborate ones could be used. Moreover, better adherence to the reporting standards (GRI) does not imply that CSR disclosure will necessarily be better as firms can disclose CSR information by other means, for example, in their annual report or in a CSR report that does not follow the GRI guidelines. Also, our sample is focused only on the Spanish context, so considering firms from other countries or institutional contexts would help generalize the scope of this research.

Further research could address several points mentioned in this work. It would be interesting to analyze other characteristics in addition to political and educational background that might explain the positive effect of independent directors on CSR disclosure such as remuneration, nationality, age, social ties, etc. Furthermore, focusing on education, it might be interesting to study whether the level of education (that is, independent directors with, or without, a master's degree or doctorate) also has any effect on CSR disclosure.

ACKNOWLEDGEMENTS

We acknowledge funding received from the Ministerio de Economía y Competitividad of Spain (projects ECO2015-63880-R and ECO 2015-69058-R) and the University of León (Spain) (project ULE2014-1).

ORCID

Roberto Fernández-Gago http://orcid.org/0000-0003-2783-1026

REFERENCES

Adams, C. A., Hill, W.-Y., & Roberts, C. B. (1998). Corporate social reporting practices in Western Europe: Legitimating corporate behaviour? *The British Accounting Review*, *30*(1), 1–21.

Agrawal, A., & Knoeber, C. (2001). Do some outside directors play a political role? *Journal of Law and Economics*, *44*(1), 179–198.

Alonso-Almeida, M., Llach, J., & Marimon, F. (2014). A closer look at the 'Global Reporting Initiative' sustainability reporting as a tool to implement environmental and social policies: A worldwide sector analysis. *Corporate Social Responsibility and Environmental Management*, *21*(6), 318–335.

Amran, A., Pink, S., & Devi, S. (2014). The influence of governance structure and strategic corporate social responsibility toward sustainability reporting quality. *Business Strategy and the Environment*, *23*(4), 217–235.

Anderson, R. C., Reeb, D. M., Upadhyay, A., & Zhao, W. (2011). The economics of director heterogeneity. *Financial Management*, *40*(1), 5–38.

Aronson, E., Wilson, T. D., & Akert, R. M. (2005). *Social psychology* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Bai, G. (2013). How do board size and occupational background of directors influence social performance in for-profit and non-profit organizations? Evidence from California hospitals. *Journal of Business Ethics*, *118*(1), 171–187.

Banks, D., Paterson, M., & Wendel, J. (1997). Uncompensated hospital care: Charitable mission or-profitable business decision? *Health Economics*, *6*(2), 133–143.

Barako, D. G., & Brown, A. M. (2008). Corporate social reporting and board representation: Evidence from the Kenyan banking sector. *Journal of Management and Governance*, *12*(4), 309–324.

Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics*, *97*(2), 207–221.

Bebbington, J., Larrinaga, C., & Moneva, J. M. (2008). Corporate social reporting and reputation risk management. *Accounting, Auditing & Accountability Journal*, *21*(3), 337–361.

Belkaoui, A., & Karpik, P. G. (1989). Determinants of the corporate decision to disclose social information. *Accounting, Auditing & Accountability Journal*, *2*(1), 36–51.

Ben Barka, H., & Dardour, A. (2015). Investigating the relationship between director's profile, board interlocks and corporate social responsibility. *Management Decision*, *53*(3), 553–570.

Ben-Amar, W., Francoeur, C., Hafsi, T., & Labelle, R. (2013). What makes better boards? A closer look at diversity and ownership. *British Management Journal*, *24*(1), 85–101.

Brammer, S., & Pavelin, S. (2008). Factors influencing the quality of corporate environmental disclosure. *Business Strategy and the Environment*, *17*(2), 120–136.

Brown, H. S., De Jong, M., & Lessidrenska, T. (2009). The rise of Global Reporting Initiative as a case of institutional entrepreneurship. *Environmental Politics*, *18*(2), 182–200.

Burke, L., & Logsdon, J. M. (1996). How corporate social responsibility pays off. *Long Range Planning*, *29*(4), 495–502.

Carnevale, C., & Mazzuca, M. (2014). Sustainability report and bank valuation: Evidence from European stock markets. *Business Ethics: A European Review*, *23*(1), 69–90.

Carretta, A., Farina, V., Gon, A., & Parisi, A. (2012). Politician 'on board': Do political connections affect banking activities in Italy? *European Management Review*, *9*(2), 75–73.

Chang, Y. K., Oh, W. Y., Park, J. H., & Jang, M. G. (2017). Exploring the relationship between board characteristics and CSR: Empirical evidence from Korea. *Journal of Business Ethics*, *140*(2), 225–242.

Chen, C. J. P., & Jaggi, B. (2000). Association between independent non-executive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy*, *19*(4–5), 285–310.

Cheng, E. C. M., & Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. *The International Journal of Accounting*, *41*(3), 262–289.

Cho, H. C., Jung, J. H., Kwak, B., Lee, J., & Yoo, C.-Y. (2017). Professors on the board: Do they contribute to society outside the classroom? *Journal of Business Ethics*, *141*(2), 393–409.

Comisión Nacional del Mercado de Valores (2015). *Código de buen gobierno de las sociedades cotizadas*. Madrid: CNMV.

Da Silva Monteiro, S. M., & Aibar-Guzmán, B. (2010). Determinants of environmental disclosure in the annual reports of large companies operating in Portugal. *Corporate Social Responsibility and Environmental Management*, *17*(4), 185–204.

Dalton, D., Daily, C., Johnson, J., & Ellstrand, A. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, *42*(6), 674–686.

Dawkins, J. (2004). Corporate responsibility: The communication challenge. *Journal of Communication Management*, *9*(2), 108–119.

De Andres, P., & Vallelado, E. (2008). Corporate governance in banking: The role of board of directors. *Journal of Banking and Finance*, *32*(12), 2570–2580.

De Villiers, C., Naiker, V., & Van Staden, C. J. (2011). The effect of board characteristics on firm environmental performance. *Journal of Management*, *37*(6), 1636–1663.

Dickson, B. J. (2003). *Red capitalists in China: The party, private entrepreneurs, and prospects for political change*. Cambridge: Cambridge University Press.

Du, S., Bhattacharya, C. B., & Sen, S. (2010). Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication. *International Journal of Management Review*, *12*(1), 8–19.

Esa, E., & Ghazali, N. (2012). Corporate social responsibility and corporate governance in Malaysian government-linked companies. *Corporate Governance: The International Journal of Business in Society*, *12*(3), 292–305.

Etzion, D., & Ferraro, F. (2010). The role of analogy in the institutionalization of sustainability reporting. *Organization Science*, *21*(5), 1092–1107.

Faccio, M. (2006). Politically connected firms. *The American Economic Review*, *96*(1), 369–386.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, *26*(2), 301–325.

Fan, J. P., Wong, T. J., & Zhang, T. (2007). Politically connected CEOs, corporate governance, and post-IPO performance of China's newly partially privatized firms. *Journal of Financial Economics*, *84*(2), 330–357.

Farook, S., Hassan, K., & Lanis, R. (2011). Determinants of corporate social responsibility disclosure: The case of Islamic banks. *Journal of Islamic Accounting and Business Research*, *2*(2), 114–141.

Felicelli, M. (2008). *Route to the top*. Chicago, IL: Spencer Stuart.

Fernández-Gago, R., Cabeza-García, L., & Nieto, M. (2016). Corporate social responsibility, board of directors, and firm performance: An analysis of their relationships. *Review of Managerial Science*, *10*(1), 85–104.

Fisman, R. (2001). Estimating the value of political connections. *The American Economic Review*, *91*(4), 1095–1102.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston, MA: Pitman.

Gallego, I. (2006). The use of economic, social and environmental indicators as a measure of sustainable development in Spain. *Corporate Social Responsibility and Environmental Management*, *13*(2), 78–97.

García-Sánchez, I. M. (2008). Corporate social reporting: Segmentation and characterization of Spanish companies. *Corporate Social Responsibility and Environmental Management*, *15*(4), 187–198.

García-Sánchez, I. M., Cuadrado-Ballesteros, B., & Sepulveda, C. (2014). Does media pressure moderate CSR disclosures by external directors? *Management Decision*, *52*(6), 1014–1045.

García-Sánchez, I. M., & Martínez-Ferrero, J. (2017). Independent directors and CSR disclosures: The moderating effect of proprietary cost. *Corporate Social Responsibility and Environmental Management*, *24*(1), 28–43.

Godos-Díez, J. L., Fernández-Gago, R., & Cabeza-García, L. (2015). Business education and idealism as determinants of stakeholder orientation. *Journal of Business Ethics*, *131*(2), 439–452.

Gray, R., Javad, M., Power, D. M., & Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: A research note and extension. *Journal of Business Finance and Accountability*, *28*(3/4), 327–356.

Greene, W. H. (1999). *Análisis Econométrico* (3rd ed.). Madrid: Prentice Hall.

Guerra-Pérez, S., Bona, C., & Santana, J. D. (2015). Politically connected firms in Spain. *BRQ Business Research Quarterly*, *18*(4), 230–245.

Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing and Accountability Journal*, *9*(1), 77–108.

Hafsi, T., & Turgut, G. (2013). Boardroom diversity and its effect on social performance: Conceptualization and empirical evidence. *Journal of Business Ethics*, *112*(3), 463–479.

Hair, J. F., Black, B., Babin, B., & Anderson, R. E. (2010). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, *38*(3), 317–349.

Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, *24*(5), 391–430.

Harjoto, M., & Jo, H. (2011). Corporate governance and CSR nexus. *Journal of Business Ethics*, *100*(1), 45–67.

Hermalin, B. E., & Weisbach, M. S. (1998). Endogenously chosen boards of directors and their monitoring of the CEO. *The American Economic Review*, *88*(1), 96–118.

Hertz, K., Brown, D., & Scott, R. (2012). Governance, media and the quality of environmental disclosure. *Journal of Accounting and Public Policy*, *31*(6), 610–640.

Hillman, A. J. (2005). Politicians on the board of directors: Do connections affect the bottom line? *Journal of Management*, *31*(3), 464–481.

Höllerer, M. A. (2013). From taken-for-granted to explicit commitment: The rise of CSR in a corporatist country. *Journal of Management Studies*, *50*(4), 573–606.

Huang, S. K. (2013). The impact of CEO characteristics on corporate sustainable development. *Corporate Social Responsibility and Environmental Management*, *20*(4), 234–244.

Ibrahim, N. A., & Angelidis, J. P. (1995). The corporate social responsiveness orientation of board members: Are there differences between inside and outside directors? *Journal of Business Ethics*, *14*(5), 405–410.

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360.

Jia, M., & Zhang, Z. (2013). Critical mass of women on BODs, multiple identities, and corporate philanthropic disaster response: Evidence from privately owned Chinese firms. *Journal of Business Ethics*, *118*(2), 303–317.

Jo, H., & Harjoto, M. (2011). Corporate governance and firm value: The impact of corporate social responsibility. *Journal of Business Ethics*, *103*(3), 351–383.

Johnson, R. A., & Greening, D. W. (1999). The effects of corporate governance and institutional ownership types on corporate social performance. *Academy of Management Journal*, *42*(5), 564–576.

Johnson, S., & Mitton, T. (2003). Cronyism and capital controls: Evidence from Malaysia. *Journal of Financial Economics*, *67*(2), 351–382.

Joshi, P. L., & Gao, S. S. (2009). Multinational corporations' corporate social and environmental disclosures (CSED) on web sites. *International Journal of Commerce and Management*, *19*(1), 27–44.

Kassinis, G., & Vafeas, N. (2002). Corporate boards and outside stakeholders as determinants of environmental litigation. *Strategic Management Journal*, *23*(5), 399–415.

Kennedy, P. (1992). *A guide to econometrics*. Oxford: Blackwell.

Khan, A. R., Muttakin, M. B., & Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of Business Ethics*, *114*(2), 207–223.

Khan, M. U. Z. (2010). The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh. *International Journal of Law and Management*, *52*(2), 82–109.

Kilic, M., Kuzey, C., & Ali, U. (2015). The impact of ownership and board structure on Corporate Social Responsibility (CSR) reporting in the Turkish banking industry. *Corporate Governance: The International Journal of Business in Society*, *15*(3), 357–374.

Kleinbaum, D. G., Kupper, L. L., & Muller, K. E. (1998). *Applied regression analysis and other multivariable methods*. Boston, MA: PWS-KENT.

KPMG (2015). *The KPMG survey of corporate responsibility reporting 2015*. Netherlands: Haymarket Network Ltd. Q44

Kuo, L., Yeh, C. H., & Yu, H. (2012). Disclosure of corporate social responsibility and environmental management: Evidence from China. *Corporate Social Responsibility and Environmental Management*, *19*(5), 273–287.

Legendre, S., & Coderre, F. (2013). Determinants of GRI G3 application levels: The case of the Fortune Global 500. *Corporate Social Responsibility and Environmental Management*, *20*(3), 182–192.

Levy, D. L., Brown, H. S., & De Jong, M. (2010). The contested politics of corporate governance. *Business and Society*, *49*(1), 88–115.

Lewis, B., Walls, J. L., & Dowell, G. W. (2014). Difference in degrees: CEO characteristics and firm environmental disclosure. *Strategic Management Journal*, *35*(5), 712–722.

Li, J., Pike, R., & Haniffa, R. (2008). Intellectual capital disclosure and corporate governance structure in UK firms. *Accounting and Business Research*, *38*(2), 137–159.

Li, S., Xianzhong, S., & Huiying, W. (2015). Political connection, ownership structure, and corporate philanthropy in China: A strategic-political perspective. *Journal of Business Ethics*, *129*(2), 399–411.

Li, Y., & McConomy, B. J. (1999). An empirical examination of factors affecting the timing of environmental accounting standard adoption and the impact on corporate valuation. *Journal of Accounting, Auditing and Finance*, *14*(3), 279–313.

Lone, E., & Khan, A. (2016). Corporate governance and corporate social responsibility disclosure: Evidence from Pakistan. *Corporate Governance: The International Journal of Business in Society*, *16*(5), 785–797.

Manner, M. (2010). The impact of CEO characteristics on corporate social performance. *Journal of Business Ethics*, *93*(1), 53–72.

Marquis, C., & Qian, C. (2014). Corporate social responsibility reporting in China: Symbol or substance? *Organization Science*, *25*(1), 127–148. Q45

Martínez-Ferrero, J., Ruiz-Cano, D., & García-Sánchez, I. M. (2016). The causal link between sustainable disclosure and information asymmetry: The moderating role of the stakeholder protection context. *Corporate Social Responsibility and Environmental Management*, *23*(5), 319–332.

Michelon, G. (2011). Sustainability disclosure and reputation: A comparative study. *Corporate Reputation Review*, *14*(2), 79–96.

Michelon, G., & Parbonetti, A. (2010). The effect of corporate governance on sustainability disclosure. *Journal of Management and Governance*, *16*(3), 477–509.

Mio, C. (2010). Corporate social reporting in Italian multi-utility companies: An empirical analysis. *Corporate Social Responsibility and Environmental Management*, *17*(5), 247–271.

Nikolaeva, R., & Bicho, M. (2011). The role of institutional and reputational factors in the voluntary adoption of corporate social responsibility reporting standards. *Journal of the Academy of Marketing Science*, *39*(1), 136–157.

Odriozola, M. D., & Baraibar-Diez, E. (2017). Is corporate reputation associated with quality of CSR reporting? Evidence from Spain. *Corporate Social Responsibility and Environmental Management*, *24*(2), 121–132.

Patten, D. M. (2002). The relation between environmental performance and environmental disclosure: A research note. *Accounting, Organizations and Society*, *27*(8), 763–773.

Petrenko, O. V., Aime, F., Ridge, J., & Hill, A. (2016). Corporate social responsibility or CEO narcissism? CSR motivations and organizational performance. *Strategic Management Journal*, *37*(2), 262–279.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependent perspective*. New York: Harper and Row.

Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, *84*(12), 78–92.

Prado-Lorenzo, J. M., Gallego-Alvarez, I. M., & García-Sánchez, I. M. (2009). Stakeholder engagement and corporate social responsibility reporting: The ownership structure effect. *Corporate Social Responsibility and Environmental Management*, *16*(2), 94–107. Q46

Prado-Lorenzo, J. M., García-Sánchez, I. M., & Gallego-Alvarez, I. (2009). Características del consejo de administración e información en materia de responsabilidad social corporativa. *Revista Española de Financiación y Contabilidad*, *38*(141), 107–135. Q47

Rahman, A. A., & Bukair, A. A. (2013). The influence of the Shariah supervision board on corporate social responsibility disclosure by Islamic banks of Gulf Co-operation Council countries. *Asian Journal of Business and Accounting*, *6*(1), 65–105.

Rao, K. K., Tilt, C. A., & Lester, L. H. (2012). Corporate governance and environmental reporting: An Australian study. *Corporate Governance: The International Journal of Business in Society*, *12*(2), 143–163.

Reverte, C. (2009). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics*, *88*(2), 351–366.

Reverte, C. (2012). The impact of better corporate social responsibility disclosure on the cost of equity capital. *Corporate Social Responsibility and Environmental Management*, *19*(5), 253–272.

Roberts, R. W. (1992). Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, Organizations & Society*, *17*(6), 595–612.

Romolini, A., Fissi, S., & Gori, E. (2014). Scoring CSR reporting in listed companies – evidence from Italian best practices. *Corporate Social Responsibility and Environmental Management*, *21*(2), 65–81.

Said, R., Zainuddin, Y. H., & Haron, F. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal*, *5*(2), 212–226.

Sánchez, J. L. F., Sotorrío, L. L., & Díez, E. B. (2011). The relationship between corporate governance and corporate social behavior: A structural equation model analysis. *Corporate Social Responsibility and Environmental Management*, *18*(2), 91–101.

Siegel, J. (2007). Contingent political capital and international alliances: Evidence from South Korea. *Administrative Science Quarterly*, *52*(4), 621–666.

Sierra, L., Zorio, A., & García-Benau, M. A. (2013). Sustainable development and assurance of corporate social responsibility reports published by Ibex-35 companies. *Corporate Social Responsibility and Environmental Management*, *20*(6), 359–370.

Siregar, S. V., & Bachtiar, Y. (2010). Corporate social reporting: Empirical evidence from Indonesia Stock Exchange. *International Journal of Islamic and Middle Eastern Finance and Management*, *3*(3), 241–252.

Sotorrío, L. L., & Fernández Sánchez, J. L. (2010). Corporate social reporting for different audiences: The case of multinational corporations in Spain. *Corporate Social Responsibility and Environmental Management*, *17*(5), 272–283.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, *20*(3), 571–610.

Sundarasen, S., Je-Yen, T., & Rajangam, N. (2016). Board composition and corporate social responsibility in an emerging market. *Corporate Governance*, *16*(1), 35–53.

Vigneau, L., Humphreys, M., & Moon, J. (2015). How do firms comply with international sustainability standards? Processes and consequences of adopting the Global Reporting Initiative. *Journal of Business Ethics*, *131*(2), 469–486.

Waddock, S. (2008). Building a new institutional infrastructure for corporate responsibility. *Academy of Management Perspectives*, *22*(3), 87–108.

Walls, J. L., Berrone, P., & Phan, P. H. (2012). Corporate governance and environmental performance: Is there really a link? *Strategic Management Journal*, *33*(8), 885–913.

Wang, H., & Qian, C. (2011). Corporate philanthropy and corporate financial performance: The roles of stakeholder response and political access. *Academy Management Journal*, *54*(6), 1159–1181.

Wang, J., & Dewhirst, D. (1992). Boards of directors and stakeholder orientation. *Journal of Business Ethics*, *11*(2), 115–123.

Welford, R. (2007). Corporate governance and corporate social responsibility: Issues for Asia. *Corporate Social Responsibility and Environmental Management*, *14*(1), 42–51.

Yasser, Q. R., Mamun, A. A., & Ahmed, I. (2017). Corporate social responsibility and gender diversity: Insights from Asia Pacific. *Corporate Social Responsibility and Environmental Management*, *24*(3), 210–221.

Zahra, S. A., & Stanton, W. W. (1988). The implications of board of directors' composition on corporate strategy and performance. *International Journal of Management*, *5*(2), 229–236.

Zhang, J., Marquis, C. H., & Qiao, K. (2016). Do political connection buffer firms from or bind firms to the government? A study of corporate charitable donations of Chinese firms. *Organization Science*, *27*(5), 1307–1324.

Zhang, L. (2012). Board demographic diversity, independence, and corporate social performance. *Corporate Governance: The International Journal of Business in Society*, *12*(5), 686–700.

How to cite this article: Fernández-Gago R, Cabeza-García L, Nieto M. Independent directors' background and CSR disclosure. *Corp Soc Resp Env Ma*. 2018;1–11. https://doi.org/10.1002/csr.1515