# EXAMINING THE IMPACT OF BOARD COMPOSITION ON ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE

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## Abstract

Given the world's complex and pressing environmental and social challenges, businesses must effectively represent their approach to sustainability by informing stakeholders about how they have decided to mitigate the effects of their actions and capitalize on sustainability-related opportunities. Stakeholders put pressure on businesses to make responsible decisions by upholding high environmental, social, and governance (ESG) standards and minimizing their impact on society and the environment. The board of directors is responsible for aligning corporate conduct with the needs of all stakeholders and steering the firm toward long-term growth processes. The purpose of this paper is to look into how some corporate governance variables affect ESG disclosure in Italian listed companies. More specifically, the paper looks into how board composition affects ESG disclosure and whether gender diversity on boards has a positive impact on ESG disclosure. To fulfill the research goal, the sample investigated is all firms registered on the Italian stock exchange, excluding financials, from 2018 to 2022. In terms of methodology, a basic linear regression model that takes into account numerous properties of the board of directors was performed. The ESG score was obtained using the Refinitiv database, while the other statistics were obtained from the individual corporations' corporate governance reports. The research findings allow us to highlight the impact of diversity on boards in ESG disclosure, confirming that there is a positive and significant relationship. As a result, the research contributes to a better practical and theoretical understanding of the critical role that gender diversity plays in boosting corporate governance and ESG best practices through increased corporate openness and accountability. The study's findings may serve as a motivation for policymakers and social regulators to continue to push initiatives and changes that promote gender equality on corporate boards. All because a diverse board of directors fosters better sustainable governance, leading investors to view companies engaged in ESG activities as a safer investment.

**Keywords:** Board Size, Diversity, Board, Governance, ESG, Sustainability

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## 1. INTRODUCTION

In recent decades, there has been a growing awareness in many countries that there is a need to change the way of doing business by seeking a proper balance between entrepreneurial development and corporate sustainability. This is referred to as smart entrepreneurship, or doing business through a proper relationship between economic, social, and environmental outcomes, with a constant focus on sustainability.

The European Union (EU) Corporate Sustainability Reporting Directive 2022/2464 (CSRD), which amends the previous non-financial reporting regime and expands corporate responsibility for the sustainable economy, has defined the new sustainability disclosure requirements. Among the new features is the introduction of mandatory and very detailed reporting standards: the European Sustainability Reporting Standards (ESRS), through which companies must provide structured and comparable sustainability information, ensuring effective communication to all stakeholders[1]. Among the most relevant points that the ESRS provides is worth mentioning the disclosure of environmental, social, and corporate governance (ESG) factors. The purpose of disclosing such information is to highlight a company's ESG sustainability activities, improving its transparency to investors and to the market more generally.

ESG factors are metrics that include both qualitative and quantitative data, which meet the three pillars of sustainability (triple bottom line) and help strengthen a company's resilience, ensuring the achievement of environmentally, socially, and economically sustainable development (Galbreath, 2013). ESG factors allow companies to focus not only on revenue generation capacity, but also on issues such as climate change, water, and air pollution, land use, gas emissions, etc. (environmental indicators) and on aspects related to the ability to ensure conditions of well-being and growth, protection of human rights, gender policies (social indicators) to end up with aspects related to board structure, independence of directors, shareholders' rights, effectiveness of codes of conduct, etc. (governance indicators) (Perrini, 2018; Neri, 2021; Billio et al., 2020).

ESG disclosure is considered by many scholars as an investment that improves relations with the market, helps to create a proper balance between the pursuit of profit and respect for social welfare (Jizi et al., 2016; Sundarasen et al., 2016), with a return in terms of profitability for the company (Mio et al., 2015; Camilleri, 2015; Salama et al., 2011; Arayssi et al., 2020; Cho et al., 2015; Clarkson et al., 2013).

An important role in ESG disclosure is played by the Board, which must integrate such information into corporate strategy with appropriate governance to support it by transforming it into an act of accountability that creates business value (Cucari et al., 2018; Said et al., 2009).

There is much discussion in academia about how governance is able to integrate ESG factors into business strategies (Jain & Jamali, 2016). It is, in fact, governed not only by laws, rules, and regulations, but also by management's capacity and competence with regard to these issues (Shackleton et al., 2022).

The structure of a board influences what board members can do. The board of directors is responsible for matching corporate conduct with demand from all stakeholders, hence leading the company toward sustainable growth processes (Aguilera et al., 2006; Jo & Harjoto, 2011). As a result, the board of directors' membership is crucial in promoting socially responsible behaviors and strategic decision-making (Michelon & Parbonetti, 2012; Cuadrado-Ballesteros et al., 2017).

Some empirical studies have shown that the composition of the board influences corporate disclosure (Shaukat et al., 2016; Mio et al., 2015). In fact, it is up to the board to align the firm's behaviors with stakeholder interests by guiding it toward sustainable development processes (Jo & Harjoto, 2011). Therefore, the composition of the board plays a fundamental role in determining socially responsible behaviors and strategic decision-making (Michelon & Parbonetti, 2012; Cuadrado-Ballesteros et al., 2017).

While various studies have examined the relationship between board composition and sustainability (Zhang et al., 2013; Trireksani & Djajadikerta, 2016; Rao & Tilt, 2016; Shaukat et al., 2016), little is known about how board gender influences ESG disclosure.

Also, the United Nations Sustainable Development Goals (SDGs) have pushed many businesses to embrace ethical and sustainable practices that ensure equitable participation of women in the company organization in order to promote gender equality and female empowerment. According to the 2030 Agenda, gender inequities inhibit sustainable development, economic growth, and gender equality, whereas full and effective women's participation in decision-making processes at all levels is crucial in the value creation process of enterprises (Post et al., 2011).

The paper aims to assess whether there is a relationship between board composition and disclosure of ESG factors. Thus, we formulate the following research questions:

*RQ1: Is there a relationship between board composition and ESG disclosure?*

*RQ2: If so, what kind of relationship is it?*

The paper attempts to fill this gap by directly investigating how certain corporate governance variables affect ESG disclosure of Italian listed companies through the presentation of a regression analysis on panel data for the period 2018–2022. ESG scores were searched on the Refinitiv database.

The results that the analysis returns are in line with studies on sustainability disclosure and confirm that corporate governance is an important factor affecting ESG disclosure (Michelon & Parbonetti, 2012).

The paper is structured as follows. Section 2 presents an overview of the existing literature on the topic and introduces the research hypothesis. Section 3 includes information on the sample, variables, and methodology used to estimate the model. Then, Section 4 highlights the discussion of results and empirical analysis. Finally, Section 5 concludes the paper.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Economic result is not the only criterion by which firms are valued on the market; today, those that are

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=intcom:C%282023%295303

being taken into account are increasingly social and environmental outcomes (Setò-Pamies, 2015). The interests of stakeholders include both strictly financial considerations and ESG concerns (Ferrero-Ferrero et al., 2015).

Just think that worries about climate change and sustainability are causing all stakeholders to place a greater emphasis on ESG strategy. Global investors are placing a premium on companies that are socially responsible, ecologically conscious, and practice good governance (Jizi, 2017; Pimple, 2012). These investors want corporations to provide more disclosures about their ESG operations (Arayssi et al., 2020; Yadav et al., 2016). Such initiatives necessitate strategic direction from the board and focus on an organization's corporate governance framework.

Firms with better ESG scores reduce information asymmetry and share price volatility in the market (Lueg et al., 2019). Otherwise, low ESG scores are generally indicative of higher stock price volatility in the market due to the unaccountable nature of the firm.

Empirical studies show that good governance is highly correlated with better market evaluation and better performance (Zahra & Pearce, 1989). The board of directors is responsible for matching corporate conduct with demand from all stakeholders, hence leading the company toward sustainable growth processes (Aguilera et al., 2006; Jo & Harjoto, 2011). As a result, the board of directors' membership is crucial in promoting socially responsible behaviors oriented towards actions that promote ESG in the strategic decision-making (Forbes & Milliken, 1999; Michelon & Parbonetti, 2012; Cuadrado-Ballesteros et al., 2017).

According to agency theory, the Board must integrate ESG responsibility into corporate strategy and provide strategic direction that simultaneously protects shareholders and stakeholders (Yadav et al., 2016).

ESG practices are a new measure of corporate social responsibility (CSR) and are considered the pillars of sustainable development (Li et al., 2008); thus, they reflect the voluntary commitment each company makes to the pursuit of non-financial goals (Galbreath, 2013).

For each of the ESG factors, companies promote a set of activities and practices that you need to bring to the attention of stakeholders (Camilleri, 2015; Jizi et al., 2016; Salama et al., 2011).

While various studies have examined the relationship between board composition and CSR (Ortiz-de-Mandojana & Aragon-Correa, 2015; Shaukat et al., 2016), little is known about how the composition of the board of directors in terms of size and gender influences ESG disclosure. Board composition, according to the upper echelons theory, is crucial in establishing and implementing key strategies that influence corporate outcomes (Graham et al., 2016; Perryman et al., 2016). This is due to the fact that board members' expertise and experience are the key predictors of the board's decision-making ability (Farag & Mallin, 2016).

Gender equality has become increasingly important in recent years, gaining interest among stakeholders, including policymakers and academics.

Several studies focused on board composition and business success, particularly on the role of female directors in value creation processes, which was validated by empirical evidence (Gabaldon et al., 2016; He & Jiang, 2019).

Women have historically been underrepresented in positions of leadership, particularly on the board of directors (Adams, 2016; Adams & Ferreira, 2009).

Women differ from men in terms of aversion and positive ethical conduct, which affects their decision-making skills, according to the upper echelons theory and the gender socialisation theory (Boulouta, 2013).

As a result, women on boards are expected to play an important role in safeguarding stakeholders' interests and reducing unethical behavior such as earnings manipulation and fraud (Cumming et al., 2015; Labelle et al., 2010; Zalata et al., 2022).

Unsurprisingly, the United Nations SDGs have pushed many businesses to embrace ethical and sustainable practices that ensure equitable participation of women in the company organization in order to promote gender equality and female empowerment. According to the 2030 Agenda, gender inequities inhibit sustainable development, economic growth, and gender equality, whereas full and effective women's participation in decision-making processes at all levels is crucial in the value creation process of enterprises.

Thus, corporate governance, specifically the board composition, is expected to play an important role in bridging the legitimacy gap through enhanced CSR disclosures (Mio et al., 2015). Board diversity has the potential to improve board effectiveness and performance (Rao & Tilt, 2016).

As a result, the primary goal of this study is to evaluate the relationship between board gender diversity in terms of the presence of women within the board, family women, average age, number of other positions, and number of foreign women, and ESG scores.

On a sample of Italian non-financial enterprises in the period 2018–2022, we used regression models to evaluate the association between gender diversity on the board of directors and ESG disclosure (as defined by the ESG score).

The purpose of this study is to provide an answer to the following research questions:

*RQ3: What, if any, link exists between board size and ESG disclosure?*

*RQ4: What type of influence does gender diversity have on the ESG disclosure?*

Empirical evidence supported our hypothesis:

*H1: The gender diversity on the board has a favorable impact on ESG performance.*

To the best of our knowledge, this study is the first to analyze the relationship between gender diversity and ESG score in the Italian setting using Refinitiv's ESG disclosure score. Understanding how gender diversity of Italian firms can determine this score is critical in our opinion because ESG data improve transparency and stakeholders' ability to assess the nonfinancial dimensions of a firm's performance, and the market pays a premium for companies that invest in ESG initiatives (Czerwińska & Kaźmierkiewicz, 2015).

In light of these considerations, the work aims to test whether there is a relationship between board composition and ESG disclosure of Italian listed companies. The regression analysis conducted seeks to answer the following research question:

*RQ5: Is ESG disclosure affected by board size?*

Numerous studies look at board composition in relation to corporate performance outcomes; fewer look at board size in relation to ESG disclosure levels (Zhang et al., 2013; Trireksani & Djajadikerta, 2016; Rao & Tilt, 2016).

There is consensus in the doctrine that the composition of the board of directors impacts the quality and quantity of information disseminated in corporate reporting (Li et al., 2008). A large board offers more complete information on mandatory and voluntary reporting and is more of a guarantor of the quality of information disseminated; offers more expertise and resources; brings more diverse viewpoints to decision-making processes; and is more open to communication both inside and outside the company (Li et al., 2008). Therefore, it is expected that a larger board is also more efficient in handling disclosure and, in particular, that of ESG factors by communicating it to stakeholders (Cheng & Courtenay, 2006; Vafeas, 2000). Just as it is expected that a board with a larger presence of women is more likely to disseminate information on ESG factors (Bear et al., 2010; Jizi, 2017). Therefore, the next research question is as follows:

*RQ6: Is ESG disclosure influenced by the greater presence of women?*

Women have better communication skills than their male counterparts. While men focus more on financial issues, women are more concerned with community welfare and charitable and humanitarian activities (Hillman et al., 2007). Some authors have shown through their research that a greater female presence on boards of directors improves the level of voluntary disclosure, which in turn influences corporate performance (Jizi 2017; Rose, 2007). Of the same opinion are Erhardt et al. (2003), Giannarakis et al. (2014), and Bear et al. (2010). Other studies have shown a positive relationship between the presence of women on Boards and better corporate disclosure outcomes (Velte, 2016). Differently are the views of Ahern and Dittmar (2012) and Shrader et al. (1997), who in their studies note that the presence of women on boards generates disagreements and conflicts among board members with inevitable repercussions on corporate communication processes and corporate performance (Cucari et al., 2018). In contrast, other research has postulated the absence of significant effects of gender diversity on boards on corporate performance (Farrell & Hersch, 2005). Companies with more women on boards are expected to be more engaged in activities related to social responsibility and ESG factors (Arayssi et al., 2020; Bear et al., 2010), and the greater female presence is expected to increase dialogue among board members by improving the quality of corporate disclosure.

## 3. RESEARCH METHODOLOGY

### 3.1. Sample composition

The Italian context, following the European Directive 2014/95 and Legislative Decree 254/2016, which made non-financial reporting mandatory to ensure comparability and homogeneity among companies, is the ideal scope for the analysis of this work. The choice of the sample fell on companies listed on the Italian Stock Exchange, excluding financials. For each company, corporate governance reports for a four-year period from 2018 to 2022 were collected and analyzed. All companies for which data needed for econometric analysis could be found during the observation period were selected.

Data on governance variables were collected manually after careful reading of annual corporate governance reports available online. ESG scores that represent the starting point of our analysis were retrieved through the Refinitiv database (Cucari et al., 2018).

### 3.2. Methodology and empirical specification

To answer the hypothesized research questions, a simple linear regression model was implemented that considers several characteristics of the board of directors. The model was implemented through the following basic equation:

$$ESG = \beta_0 + \beta_1(Bsize) + \beta_2(Women) + \beta_3(DP) + \beta_4(Fwomen) + \beta_5(DFP) + \beta_6(Age) + \beta_7(Foreign) + \beta_8(Assignments) + \varepsilon \quad (1)$$

The dependent variable of the model is the *ESG* score, a score that can take a value ranging from 0.1 to 100, where 0.1 represents cases where minimal *ESG* occurs and 100 represents the highest ESG for each dimension of the triple bottom line: environmental (E), social (S), and governance (G). High *ESG* scores imply better corporate disclosure.

Existing literature has pointed out that Refinitiv's scores are important for investors (Ioannou & Serafeim, 2015) because they specifically measure the degree of transparency of each company's disclosure on the performance of the three ESG dimensions to be reported (environmental, social, and governance) (Lai et al., 2014; Husted & de Sousa-Filho, 2019). In addition, they are a useful measure of valuation risk arising from a company's operational decisions, human resource policies and practices, and corporate governance (Cucari et al., 2018).

Regarding the explanatory variables used in the model, the *Bsize* variable represents the number of board members. The remaining variables describe corporate gender diversity. Specifically, *Women* represents the number of women on the board, *Age* represents the average age of women on the board, and *Assignments* is intended to represent the number of other positions that women on the board hold. In addition, *DP* is a dummy variable, which takes value 1 if there are women found to hold the position of chairperson, 0 otherwise; family women (*Fwomen*) is a variable intended to represent the presence or absence of women with a degree of kinship to the figure of the chairperson of the board; *Foreign* is the variable indicating the presence of the number of foreign women within the board; *DFP* is a dummy variable that takes value 1 if the foreign woman holds the position of chairperson, 0 otherwise. The analyzed model was subsequently subjected to a series of robustness checks that verified its suitable implementation.

## 4. RESULTS AND DISCUSSION

### 4.1. Descriptive analysis

The analysis was conducted on all listed companies, and two hundred observations were analyzed. The dependent variable was extracted from a data set available on the Refinitiv database, and the remaining independent variables were obtained from corporate governance reports available online.

The validity of the model was tested, taking into account the overall R-squared ($R^2$) index and the F-test, as reported in the following equations:

$$R^2 = \frac{5626.54}{32236.8} = 0.174538 \quad (2)$$

$$F(8, 159) = \frac{703.318}{167.36} = 4.20243\ [p - value = 0.0001] \quad (3)$$

To test the research hypothesis, a simple linear regression (ordinary least squares — OLS) model was implemented that considers all companies in the sample for which data could be collected. The results that the regression model returns are shown in Table 1.

**Table 1.** Regression analysis on the observed variables for the whole sample

| *Variable* | *Coefficient* | *Std. error* | *t* | *p-value* | *Sig.* |
|---|---|---|---|---|---|
| const | 17.9814 | 15.6798 | 1.147 | 0.2532 | |
| *Bsize* | -1.00843 | 0.732443 | -1.377 | 0.1705 | |
| *Women* | 3.39580 | 1.81959 | 1.866 | 0.0638 | * |
| *DP* | 2.86432 | 3.10032 | 0.9239 | 0.3569 | |
| *Fwomen* | -5.15980 | 2.30927 | -2.234 | 0.0269 | ** |
| *DFP* | 0.257862 | 3.25274 | 0.07928 | 0.9369 | |
| *Age* | 0.547370 | 0.256581 | 2.133 | 0.0344 | ** |
| *Foreign* | 1.78452 | 0.996504 | 1.791 | 0.0752 | * |
| *Assignments* | 0.171667 | 0.0645063 | 2.661 | 0.0086 | *** |

| | | | |
|---|---|---|---|
| Media dependent var. | 55.33333 | S.D.dependent var. | 13.89368 |
| Sum squared residual | 26610.21 | E.S. regression | 12.93676 |
| R-squared | 0.174538 | Correct R-squared | 0.133005 |
| F(8, 159) | 6.579046 | p-value(F) | 2.09e-07 |
| Log-verisimilitude | -663.8489 | Akaike's criterion | 1345.698 |
| Schwarz's criterion | 1373.814 | Hannan-Quinn | 1357.109 |

*Note: *, **, *** more asterisks = a more significant coefficient.*
*Source: Authors' elaboration.*

The coefficients returned by the model show significant values for some variables. The coefficient returned by the variable *Bsize* is negative and is -1.00843, highlighting a negative relationship with the *ESG* score. This allows us to answer *RQ3* by stating that ESG disclosure is not affected by board size. The result of our analysis is not in line with what has been found in the literature. In fact, some research shows that a larger board is a guarantor of greater corporate disclosure because it promotes greater balance in the interests of all stakeholders; it brings more resources, experience, and expertise. This implies that a board with more members has a positive influence on ESG disclosure (Li et al., 2008).

The coefficient returned by the variable *Women* (3.39580) highlights a positive link between this variable and the *ESG* score. The same variable is significant for critical alpha values of 0.10. This result allows us to answer the second research question, stating that ESG disclosure is influenced by higher female presence.

Consistent with other studies in the literature, the result of our analysis confirms that a greater presence of women brings greater commitment to improving the quality of reporting and attaches significant importance to ESG sustainability issues.

The *Age* variable also confirms a positive link with corporate disclosure. In line with the studies analyzed, it is possible to state that a board of directors with younger members is more dynamic and open to certain issues, such as those related to technological and climate change (Diamantopoulos et al., 2003). On the other hand, it is not believed that foreign female directors significantly affect ESG disclosure mainly because of their limited presence, which is still relatively low in Italy. Although the results of our analysis confirm that there is a positive link of 1.78452 between the variable *Foreign* and ESG disclosure. The variable is significant for critical alpha values of 0.10.

In conclusion, we can say that relative to the sample analyzed, the results were positive and significant for the *Women*'s variable and negative for the *Bsize* variable.

## 4.2. Discussion

The topic of ESG disclosure has always attracted the attention of the literature and regulatory bodies. In our country, as in the rest of the world, special attention is paid to non-financial reporting because, as reported in some studies in the literature, it is useful information for the market and investors to better assess their earnings prospects and generate value for the company. In this paper, it was analyzed whether there is a relationship between board composition and ESG disclosure.

Specifically, some characteristics of the board (numerosity, presence of women, presence of foreign women, presence of family women, average age of women, number of positions held by women) were analyzed.

The board plays an important role in companies because it must know how to integrate sustainable development policies into the company's business strategies; after promoting these policies, it must be concerned with implementing them through concrete actions and then disseminating them properly to the market and investors (Setó-Pamies, 2015).

However, in our analysis, board size is not positively and statistically significantly associated with ESG disclosure. In fact, the results that the analysis returns confirm that board composition in terms of numerosity does not influence ESG disclosure, while its different composition has a positive effect.

The greater presence of women impacts the decision-making process and the amount of information disseminated externally by the company (Zhang et al., 2013). This is because women are different from men in terms of lifestyle, priorities in organizational and family needs; their focus is more on the well-being of others.

In this regard, Nielsen and Huse (2010) point out that women's attention to the needs of others may contribute to their involvement in issues that affect the relationship between the company and its stakeholders, with a focus on social and environmental issues. Consistent with other studies, the analysis conducted shows a positive result in the relationship between women on the board of directors and ESG disclosure (Torchia et al., 2011).

## 5. CONCLUSION

The current work's outcome may have significant implications for policy. In fact, it implies that having women on boards of directors is not just a response to the legal requirement for gender equality; rather, it may be seen as a necessity to satisfy informational needs that support moral commitment to issues like workplace safety, pollution, and climate change. Thus, the analysis's conclusion is intriguing since it informs governing bodies of what the Italian legislation mandates in terms of more female representation. Sustainability decisions are encouraged and promoted by a legally diverse board that includes a number of women directors.

Naturally, the study has several shortcomings as well, which we hope will provide some insight for further investigation. Initially, only Italian listed firms were taken into consideration; it would be intriguing to compare them to others that are comparable to ours by possibly creating a comparative analysis across nations. A more comprehensive picture could be obtained by extending the observation period to additional years.

A more complete picture could be obtained by extending the research to a longer observation period. Finally, it could be useful to carry out a comparison between listed and unlisted companies, not only in Italy, to investigate whether there is any difference in the composition of the board and its influence on sustainability disclosure.

## REFERENCES

Adams, R. B. (2016). Women on boards: The superheroes of tomorrow? *The Leadership Quarterly*, *27*(3), 371–386. https://doi.org/10.1016/j.leaqua.2015.11.001

Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, *94*(2), 291–309. https://doi.org/10.1016/j.jfineco.2008.10.007

Aguilera, R. V., Williams, C. A., Conley, J. M., & Rupp, D. E. (2006). Corporate governance and social responsibility: A comparative analysis of the UK and the US. *Corporate Governance: An International Review, 14*(3), 147–158. https://doi.org/10.1111/j.1467-8683.2006.00495.x

Ahern, K. R., & Dittmar, A. K. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*, *127*(1), 137–197. https://doi.org/10.1093/qje/qjr049

Arayssi, M., Dah, M., & Jizi, M. (2016). Women on boards, sustainability reporting and firm performance. *Sustainability Accounting, Management and Policy Journal*, *7*(3), 376–401. https://doi.org/10.1108/SAMPJ-07-2015-0055

Arayssi, M., Jizi, M., & Tabaja, H. H. (2020). The impact of board composition on the level of ESG disclosures in GCC countries. *Sustainability Accounting, Management and Policy Journal*, *11*(1), 137–161. https://doi.org/10.1108/SAMPJ-05-2018-0136

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. https://doi.org/10.1007/s10551-010-0505-2

Billio, M., Costola, M., Hristova, I., Latino, C., & Pelizzon, L. (2020). *Inside the ESG ratings: (Dis)agreement and performance* (Working Paper No. 17/WP/2020). Ca' Foscari University of Venice. https://doi.org/10.2139/ssrn.3764493

Boulouta, I. (2013). Hidden connections: The link between board gender diversity and corporate social performance. *Journal of Business Ethics, 113*(2), 185–197. https://doi.org/10.1007/s10551-012-1293-7

Camilleri, M. A. (2015). Environmental, social and governance disclosures in Europe. *Sustainability Accounting, Management and Policy Journal, 6*(2), 224–242. https://doi.org/10.1108/SAMPJ-10-2014-0065

Cheng, E. C. M., & Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. *The International Journal of Accounting*, *41*(3), 262–289. https://doi.org/10.1016/j.intacc.2006.07.001

Cho, C. H., Michelon, G., Patten, D. M., & Roberts, R. W. (2015). CSR disclosure: The more things change? *Accounting, Auditing & Accountability Journal*, *28*(1), 14–35. https://doi.org/10.1108/AAAJ-12-2013-1549

Clarkson, P. M., Fang, X., Li, Y., & Richardson, G. (2013). The relevance of environmental disclosures: Are such disclosures incrementally informative? *Journal of Accounting and Public Policy*, *32*(5), 410–431. https://doi.org/10.1016/j.jaccpubpol.2013.06.008

Cuadrado-Ballesteros, B., Martínez-Ferrero, J., & García-Sánchez, I. M. (2017). Board structure to enhance social responsibility development: A qualitative comparative analysis of US companies. *Corporate Social Responsibility and Environmental Management, 24*(6), 524–542. https://doi.org/10.1002/csr.1425

Cucari, N., Esposito De Falco, S., & Orlando, B. (2018). Diversity of board of directors and environmental social governance: Evidence from Italian listed companies. *Corporate Social Responsibility Environmental Management*, *25*(3), 250–266. https://doi.org/10.1002/csr.1452

Cumming, D., Leung, T. Y., & Rui, O. (2015). Gender diversity and securities fraud. *Academy Management Journal*, *58*(5), 1572–1593. https://doi.org/10.5465/amj.2013.0750

Czerwińska, T., & Kaźmierkiewicz, P. (2015). ESG rating in investment risk analysis of companies listed on the public market in Poland. *Economic Notes, 44*(2), 211–248. https://doi.org/10.1111/ecno.12031

Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research, 56*(6), 465–480. https://doi.org/10.1016/S0148-2963(01)00241-7

Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate governance: An International Review, 11*(2), 102–111. https://doi.org/10.1111/1467-8683.00011

Farag, H., & Mallin, C. (2016). The impact of the dual board structure and board diversity: Evidence from Chinese initial public offerings (IPOs). *Journal of Business Ethics, 139*(2), 333–349. https://doi.org/10.1007/s10551-015-2649-6

Farrell, K. A., & Hersch, P. L. (2005). Additions to corporate boards: The effect of gender. *Journal Corporate Financial*, *11*(1–2), 85–106. https://doi.org/10.1016/j.jcorpfin.2003.12.001

Ferrero-Ferrero, I., Fernández-Izquierdo, M. Á., & Muñoz-Torres, M. J. (2015). Integrating sustainability into corporate governance: An empirical study on board diversity. *Corporate Social Responsibility and Environmental Management*, *22*(4), 193–207. https://doi.org/10.1002/csr.1333

Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of Management Review*, *24*(3), 489–505. https://doi.org/10.2307/259138

Gabaldon, P., de Anca, C., Mateos de Cabo, R., & Gimeno, R. (2016). Searching for women on boards: An analysis from the supply and demand perspective. *Corporate Governance: An International Review*, *24*(3), 371–385. https://doi.org/10.1111/corg.12141

Galbreath, J. (2013). ESG in focus: The Australian evidence. *Journal of Business Ethics*, *118*(3), 529–541. https://doi.org/10.1007/s10551-012-1607-9

Giannarakis, G., Konteos, G., & Sariannidis, N. (2014). Financial, governance and environmental determinants of corporate social responsible disclosure. *Management Decision*, *52*(10), 1928–1951. https://doi.org/10.1108/MD-05-2014-0296

Graham, M. E., Belliveau, M. A., & Hotchkiss, J. L. (2016). The view at the top or signing at the bottom? Workplace diversity responsibility and women's representation in management. *ILR Review, 70*(1), 223–258. https://doi.org/10.1177/0019793916668879

He, X., & Jiang, S. (2019). Does gender diversity matter for green innovation? *Business Strategy and the Environment*, *28*(7), 1341–1356. https://doi.org/10.1002/bse.2319

Hillman, A. J., Shropshire, C., & Cannella, A. A., Jr. (2007). Organizational predictors of women on corporate boards. *Academy of Management Journal, 50*(4), 941–952. https://doi.org/10.5465/amj.2007.26279222

Husted, B. W., & de Sousa-Filho, J. M. (2019). Board structure and environmental, social, and governance disclosure in Latin America. *Journal of Business Research*, *102*, 220–227. https://doi.org/10.1016/j.jbusres.2018.01.017

Ioannou, I., & Serafeim, G. (2015). The impact of corporate social responsibility on investment recommendations: Analysts' perceptions and shifting institutional logic. *Strategic Management Journal*, *36*(7), 1053–1081. https://doi.org/10.1002/smj.2268

Jain, T., & Jamali, D. (2016). Looking inside the black box: The effect of corporate governance on corporate social responsibility. *Corporate Governance: An International Review*, *24*(3), 253–273. https://doi.org/10.1111/corg.12154

Jizi, M. (2017). The influence of board composition on sustainable development disclosure. *Business Strategy and the Environment*, *26*(5), 640–655. https://doi.org/10.1002/bse.1943

Jizi, M., Nehme, R., & Salama, A. (2016). Do social responsibility disclosures show improvements on stock price? *The Journal of Developing Areas*, *50*(2), 77–95. https://doi.org/10.1353/jda.2016.0075

Jo, H., & Harjoto, M. A. (2011). Corporate governance and firm value: The impact of corporate social responsibility. *Journal of Business Ethics, 103*(3), 351–383. https://doi.org/10.1007/s10551-011-0869-y

Labelle, R., Makni Gargouri, R., & Francoeur, C. (2010). Ethics, diversity management, and financial reporting quality. *Journal of Business Ethics*, *93*(2), 335–353. https://doi.org/10.1007/s10551-009-0225-7

Lai, A., Melloni, G., & Stacchezzini, R. (2014). Corporate sustainable development in "integrated reporting" a legitimation strategy? *Business Strategy and the Environment*, *25*(3), 165–177. https://doi.org/10.1002/bse.1863

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. https://doi.org/10.1080/00014788.2008.9663326

Lueg, K., Krastev, B., & Lueg, R. (2019). Bidirectional effects between organizational sustainability disclosure and risk. *Journal of Cleaner Production*, *229*, 268–277. https://doi.org/10.1016/j.jclepro.2019.04.379

Michelon, G., & Parbonetti, A. (2012). The effect of corporate governance on sustainability disclosure. *Journal of Management & Governance, 16*(3), 477–509. https://doi.org/10.1007/s10997-010-9160-3

Mio, C., Venturelli, A., & Leopizzi, R. (2015). Management by objectives and corporate social responsibility disclosure: First results from Italy. *Accounting, Auditing & Accountability Journal, 28*(3), 325–364. https://doi.org/10.1108/AAAJ-09-2013-1480

Naseem, M. A., Rehman, R. U., Ikram, A., & Malik, F. (2017). Impact of board characteristics on corporate social responsibility disclosure. *Journal of Applied Business Research, 33*(4), 801–810. https://doi.org/10.19030/jabr.v33i4.10001

Neri, S. (2021). Environmental, social and governance (ESG) and integrated reporting. In S. Vertigans & S. O. Idowu (Eds.), *Global challenges to CSR and sustainable development: Root causes and evidence from case studies* (pp. 293–302). Springer. https://doi.org/10.1007/978-3-030-62501-6_14

Nielsen, S., & Huse, M. (2010). The contribution of women on boards of directors: Going beyond the surface. *Corporate Governance: An International Review*, *18*(2), 136–148. https://doi.org/10.1111/j.1467-8683.2010.00784.x

Ortiz-de-Mandojana, N., & Aragon-Correa, J. A. (2015). Boards and sustainability: The contingent influence of director interlocks on corporate environmental performance. *Business Strategy and the Environment, 24*(6), 499–517. https://doi.org/10.1002/bse.1833

Perrini, F. (2018). *Sostenibilità* [Sustainability]. EGEA.

Perryman, A. A., Fernando, G. D., & Tripathy, A. (2016). Do gender differences persist? An examination of gender diversity on firm performance, risk, and executive compensation. *Journal of Business Research*, *69*(2), 579–586. https://doi.org/10.1016/j.jbusres.2015.05.013

Pimple, M. M. (2012). Business ethics and corporate social responsibility. *International Journal of Management Research and Review, 2*(5), 761–765. https://shorturl.at/UYOSS

Post, C., Rahman, N., & Rubow, E. (2011). Green governance: Boards of directors' composition and environmental corporate social responsibility. *Business & Society, 50*(1), 189–223. https://doi.org/10.1177/0007650310394642

Rao, K., & Tilt, C. (2016). Board composition and corporate social responsibility: The role of diversity, gender, strategy, and decision making. *Journal of Business Ethics*, *138*(2), 327–347. https://doi.org/10.1007/s10551-015-2613-5

Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review*, *15*(2), 404–413. https://doi.org/10.1111/j.1467-8683.2007.00570.x

Said, R., Zainuddin, Y. H., & Haron, H. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal*, *5*(2), 212–226. https://doi.org/10.1108/17471110910964496

Salama, A., Anderson, K., & Toms, J. S. (2011). Does community and environmental responsibility affect firm's risk: Evidence from UK panel data, 1994–2006. *Business Ethics: A European Review*, *20*(2), 192–204. https://doi.org/10.1111/j.1467-8608.2011.01617.x

Setó-Pamies, D. (2015). The relationship between women directors and corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, *22*(6), 334–345. https://doi.org/10.1002/csr.1349

Shackleton, M., Yan, J., & Yao, Y. (2022). What drives a firm's ES performance? Evidence from stock returns. *Journal of Banking & Finance*, *136*, Article 106304. https://doi.org/10.1016/j.jbankfin.2021.106304

Shaukat, A., Qiu, Y., & Trojanowski, G. (2016). Board attributes, corporate social responsibility strategy, and corporate environmental and social performance. *Journal of Business Ethics*, *135*(3), 569–585. https://doi.org/10.1007/s10551-014-2460-9

Shrader, C. B., Blackburn, V. B., & Iles, P. (1997). Women in management and firm financial performance: An exploratory study. *Journal of Managerial Issues*, *9*(3), 355–372. https://www.jstor.org/stable/40604152

Srinidhi, B., Gul, F. A., & Tsui, J. (2011). Female directors and earnings quality. *Contemporary Accounting Research*, *28*(5), 1610–1644. https://doi.org/10.1111/j.1911-3846.2011.01071.x

Sundarasen, S. D. D., Je-Yen, T., & Rajangam, N. (2016). Board composition and corporate social responsibility in an emerging market. *Corporate Governance, 16*(1), 35–53. https://doi.org/10.1108/CG-05-2015-0059

Torchia, M., Calabrò, A., & Huse, M. (2011). Women directors on corporate boards: From tokenism to critical mass. *Journal of Business Ethics*, *102*(2), 299–317. https://doi.org/10.1007/s10551-011-0815-z

Trireksani, T., & Djajadikerta, H. G. (2016). Corporate governance and environmental disclosure in the Indonesian mining industry. *Australasian Accounting Business & Finance Journal, 10*(1), 18–28. https://doi.org/10.14453/aabfj.v10i1.3

Vafeas, N. (2000). Board structure and the informativeness of earnings. *Journal of Accounting and Public Policy*, *19*(2), 139–160. https://doi.org/10.1016/S0278-4254(00)00006-5

Velte, P. (2016). Women on management board and ESG performance. *Journal of Global Responsibility, 7*(1), 98–109. https://doi.org/10.1108/JGR-01-2016-0001

Yadav, P. L., Han, S. H., & Rho, J. J. (2016). Impact of environmental performance on firm value for sustainable investment: Evidence from large US firms. *Business Strategy and the Environment, 25*(6), 402–420. https://doi.org/10.1002/bse.1883

Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, *15*(2), 291–334. https://doi.org/10.1177/014920638901500208

Zalata, A. M., Ntim, C. G., Alsohagy, M. H., & Malagila, J. (2022). Gender diversity and earnings management: The case of female directors with financial background. *Review of Quantitative Finance and Accounting*, *58*(1), 101–136. https://doi.org/10.1007/s11156-021-00991-4

Zhang, J. Q., Zhu, H., & Ding, H.-B. (2013). Board composition and corporate social responsibility: An empirical investigation in the post Sarbanes-Oxley era. *Journal of Business Ethics, 114*(3), 381–392. https://doi.org/10.1007/s10551-012-1352-0