Female leadership and environmental, social and governance performance. Empirical evidence from France

Francesco Paolone, Nathalie Bitbol-Saba, Daniele Gasbarro and Giuseppe Nicolò

Abstract

Purpose – *This paper aims to examine the extent to which the presence of women in governance and top management positions is likely to affect corporate environmental, social and governance (ESG) performance. This study also examines the interaction effect between female leadership and cultural leadership in the boardroom.*

Design/methodology/approach – *The empirical quantitative paper covers a sample of French-listed non-financial companies from 2018 to 2022 (925 firm-year observations). France is the European Union pioneer of non-financial reporting and gender equality policies. A fixed-effect panel regression analysis was estimated to unveil the links between the presence of women in governance and top management positions and ESG performance.*

Findings – *Results show that appointing more women on the board of directors and executive team is conducive to higher ESG performance. Nevertheless, the interaction effect between female and cultural leadership does not impact ESG performance.*

Originality/value – *This study contributes to the accounting and corporate governance literature on gender diversity and ESG performance by investigating female leadership in both directorship and top executive roles.*

Keywords *Board gender diversity, Sustainable corporate governance, ESG performance, Female executives*

Paper type *Research paper*

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1. Introduction

In the European Union (EU), recent years have seen firms' wide adoption of non-financial reports focusing on environmental, social and governance (ESG) activities following the Non-Financial Reporting Directive 95 / 2014 (Pizzi *et al.*, 2023a, 2023b; Nicolò *et al.*, 2024a; Venturelli *et al.*, 2018). A strong focus on risk management and corporate governance can be identified in these activities and is often linked to ethical considerations (Hussain *et al.*, 2018; Lehner *et al.*, 2019).

Furthermore, specific issues have been found positively related to ESG practices, among which there is the number of women on corporate boards of directors (BoDs). At the European level, one of the main ways of increasing the presence of women on boards has been the imposition of legal quotas (The European Commission, 2020). Although European legal quotas on board gender diversity have raised concerns, the number of women on boards in Europe has successfully increased over a relatively short time frame (García-Sánchez *et al.*, 2023; Gul *et al.*, 2022; Zampone *et al.*, 2024). The proportion of women on boards in the largest listed companies in the EU ranges mostly from 22% to 45% (EIGE, 2021).

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On November 2022, the Directive (EU), 2022 / 2381, the so-called "Women on Boards" Directive, has set requirements according to which by the end of June 2026, all the largest publicly listed companies in the EU have to take measures to increase women's presence at their helm. Hereafter, an increase in women's participation in the labour market has a strong, positive impact on the economy.

Despite current research on ESG performance and gender diversity, the scientific debate about how the presence of women in leadership positions (members of the board of directors [BoD], in C-suite positions and across the executive leadership) drives firms' outcomes and non-financial performance is characterised by a high degree of fragmentation (El-Dyasty and Elamer, 2023).

So, this study explores this topic in the European context of France by examining the effect of female leadership on ESG score. The motivation for investigating this topic in the context of France is straightforward. France is one of the pioneers of non-financial reporting, specifically on gender equality, and has been mandating detailed requirements for over a decade (Aureli *et al.*, 2018). In France, where social reporting became legal in 1977, the state's intervention in regulating non-financial reporting is strong, and the rules are quite detailed. The Directive of 22 October 2014 was transposed into French national law in 2017. Under this regulation, companies that exceed certain thresholds must draw up an annual declaration of extra-financial performance (DPEF) each year. Therefore, the paper aims also to contribute to the recent agenda launched by academics about the need to explore the real effects related to the transposition of Directive 2014 / 95/EU by the Member States (Baumüller and Sopp, 2022; European Reporting Lab, 2021).

By collecting data from *Refinitiv Eikon* database, this study uses ordinary least squares (OLS) panel regression analyses for a sample of French-listed companies that belong to non-financial industries (manufacturing, commercial and service) covering the period 2018–2022.

Although the ESG issues began in 2005 with the publication of the report named "Who Cares Win" released by the UNGC (United Nation Global Compact, 2005) and although France represents the pioneer in the EU of non-financial reporting and gender equality policies, data on *Refinitiv Eikon* were collected only from 2018 onwards. This was mainly due to a huge amount of missing data before that period.

The main variables selected in the model are ESG score (dependent variable), women on board (the number of women in the boardroom) and female executives on board (the number of female executives in the boardroom). Empirical findings show that the presence of female board directors and female top executives is positively associated with ESG performance. Secondly, the interaction effect between female and cultural leadership among executives does not impact ESG performance. This study may underline the relevance of different roles for women (directors and/or top executives) in influencing ESG issues and may inform future policy and regulatory initiatives.

The main contribution of this paper is twofold. Firstly, this paper is based on empirical quantitative analysis that supports the importance of gender and cultural diversity in the board's growing power and influence on stakeholders' interests. Specifically, we demonstrate that French-listed companies could view gender diversity and leadership as a proxy for the quality of corporate governance. We then demonstrate that the interaction terms female and cultural leadership among executives does no impact ESG performance. Secondly, this study provides data analysis and sources from France, a country with interesting characteristics: a rising number of female board members, a legal framework for gender diversity in the boardroom, a significant economic volume and a richness of data-available companies, but that still remains underexplored in existing studies. As France is considered the pioneering country for gender equality at

EU level, we test whether female leadership has an impact on ESG score in the period 2018–2022.

This paper proceeds as follows. Section 2 presents the theoretical framework and hypotheses development; Section 3 illustrates research methodology; Section 4 illustrates empirical results; and Section 5 provides discussion and concluding remarks.

2. Theoretical framework and hypotheses development

2.1 Prior studies and theoretical perspectives

Accounting, corporate governance as well as management literature agree that the BoD represents the most critical corporate governance body as well as being ultimately responsible for the long-term success of the company (Cambrea *et al.*, 2019; Klettner *et al.*, 2014; Stiles, 2001; Wheelen *et al.*, 2017). The BoDs represent the strategic arm of business organisations, and their composition is decisive for the organisations' success (Berraies and Rejeb, 2019). Board diversity is not a static concept but a relevant mix of several dimensions (e.g. gender, age, nationality, ethnicity, educational and cultural background, skills, experience and tenure) for the board, based on business goals and future developments. Generally, directors' characteristics are classified into several categories, i.e. demographic or personality traits (Milliken and Martins, 1996). In this context, the most debated issue concerns whether and to what extent boards must rely on directors with various attributes (specifically, in terms of gender) to assist them in elaborating and reviewing corporate strategy (Gani and Jermias, 2006; Rao and Tilt, 2016).

In this study, we discuss two main theoretical perspectives showing that higher number of females on board generates positive effect on board effectiveness and long-term performance: *gender role theory* (GRT) and *critical mass theory* (CMT). Other theories not applied in this study refer to agency, stakeholder and legitimacy.

The first perspective is the GRT, also called *social role theory*, primarily elaborated by Eagly (1987), which declares that *an individual's gender determines his/her behavior and its effectiveness with respect to influence* (Terjesen *et al.*, 2016, p. 6). This theory indicates how male and female directors normatively prescribe behaviour concerning corporate communication. Specifically, women are more likely to assume communal characteristics such as sympathy and gentility (Eagly, 1987). On the other hand, men will more likely be assertive and aggressive. According to Rosener (1995), flexibility represents one of the main gender roles associated with females, which may lead to a better ability to manage controversial or ambiguous situations. Gender roles are relevant for the board; directors must use effectively influential communication tactics (Terjesen *et al.*, 2016).

The second theoretical perspective is CMT (Kanter, 1977). It suggests that when the size of a minority group reaches a certain threshold or "critical mass", the influence of this minority group increases significantly. Konrad *et al.* (2008) suggest that the critical mass of women on boards is reached when at least three female directors are on a board ("the magic of the number three" as they call it). Their main argument is that with three female directors, it is possible to increase the likelihood that women's voices will be heard, that their ideas will influence the board's decision-making and that the dynamics within the board will change significantly. Joecks *et al.* (2013) find that a critical mass of about 30% of female directors significantly impacts firm performance. "Critical mass" effect influences and moderates the significant and positive correlation between gender diversity on boards and ESG disclosure. Table 1 summarises the theoretical frameworks used in main scientific contributions on women on boards and ESG.

Table 1 Summary of theoretical frameworks used in main scientific contributions on women on boards and ESG		
Theoretical perspective	*Theoretical framework*	*Article*
Sociological and psychological perspective	Critical mass theory	Cambrea *et al.* (2019) Manita *et al.* (2018) Cabeza-García *et al.* (2018) Fernandez-Feijoo *et al.* (2014)
	Critical mass theory, legitimacy theory	Nuber and Velte (2021)
	Gender role theory	Burkhardt *et al.* (2020)
Economic and corporate governance perspective	Agency theory, stakeholder theory	Pucheta-Martínez *et al.* (2021) Velte (2016)

Source: Authors' own work

2.2 Women on board (presence and leadership) and environmental, social and governance performance

Women are different from male counterparts in several aspects (i.e. behaviour, experience and values), and boards need several of their characteristics, such as their increased diversity of opinions and ability to improve the corporate image with stakeholder groups (Cambrea *et al.*, 2019; Galbreath, 2011; Zampone *et al.*, 2024). Moreover, women increase firms' reputation (Bear *et al.*, 2010; Brammer *et al.*, 2009) and add different perspectives, experiences and expertise to men's (Daily and Dalton, 1994; Hillman *et al.*, 2001), also because of their greater wisdom and diligence (Huse and Solberg, 2006). Women directors contribute to a more independent view to boards (Fondas, 2000), and can change the firm's strategic direction (Selby, 2000).

The relationship between the presence of women and companies' performances has been investigated regarding financial features as well, concluding in some cases that gender diversity has a positive impact (Garcia-Meca *et al.*, 2015). Recent research has paid attention to the presence of women on boards (Khan *et al.*, 2019; Nguyen *et al.*, 2020). Boards with many women may increase the quality of decisions and benefit from different approaches and perspectives (Adams and Ferreira, 2009; Huse and Solberg, 2006). Gul *et al.* (2011) state that gender diversity enhances the quality of the board analysis and the oversight function. Women on board have, thus, the ability to better develop communication and maintain good relations with all stakeholders (Liu *et al.*, 2014).

In line with earlier studies and theoretical perspectives, more women on boards can reduce stakeholder conflicts, leading to more sustainable reporting and performance (Nicolò *et al.*, 2021; Zampone *et al.*, 2024). Based on theoretical arguments and empirical evidence from previous literature, we thus expect that the number of women directors influences the firm's ESG performance level. Specifically, we expect that board gender diversity will be able to affect ESG score. Previous research has looked at the worldwide context, as well as the European area. Apart from a recent empirical study about gender diversity in top management and environmental performance in French-listed firms (Burkhardt *et al.*, 2020), the French context remains underexplored. Therefore, we believe there is a gap in the literature regarding the study of the relationship between the presence of women on BoDs and ESG scores in French-listed companies. We thus formulate the following hypothesis:

H1a. The presence of women in the boardroom is positively associated with ESG performance in French-listed companies.

The Sustainable Development Goal 5 of the United Nations calls for effective participation of women and equal opportunities for leadership at all levels of decision-making, which is why gender diversity is gaining ground (United Nations, 2016; Ali *et al.*, 2023). From this, a number of empirical papers study the relationship between female leadership and ESG performance. Because of their psychological traits, women directors would be more sensitive to environmental and social issues while balancing stakeholders' needs (da Silva Monteiro and Aibar-Guzmán, 2010; Terjesen *et al.*, 2009). Based on a study of US companies, Adams and Ferreira (2009) show that female leadership can increase inputs in governance, for example a greater attendance at board meetings, but not necessarily better governance outcomes. Using a panel of US companies listed in Business Ethics 100 Best Corporate Citizens, Mallin and Michelon (2011) test the link between female directors' proportion and corporate social performance. They suggest that female directors are positively associated with non-financial performance. Based on a sample of US firms, Zhang *et al.* (2013) demonstrate that a higher proportion of female directors contributes to the company's corporate social responsibility (CSR) outperformance relative to its peers. Using response/non-response to ESG disclosure initiatives as a binary response variable, Ben-Amar *et al.* (2017) found a positive impact of female directors' proportion on response rate in a sample of Canadian companies. Wei *et al.* (2017) analyse a sample of Chinese-listed companies and reveal that the presence of women directors positively affects corporate environmental motivation only when their number exceeds three. Based on a panel of Australian-listed companies, Galbreath (2011) proposes a study that focuses on the difference in female leadership's impact on corporate social performance, showing women directors' positive impact on social issues. Dwivedi *et al.* (2023) still found a positive impact of female leadership on ESG performance in Indian companies. Harjoto *et al.* (2020) demonstrate, for S&P500 companies, that ESG reports with a female (*vis-à-vis* male) executive are more readable, show more solidarity with readers and are positively associated with firms' future social performance. Although the relationship between female leadership and ESG performance has been tested in several countries as above described, mainly non-EU countries (US, Canada, China, Australia, India, etc.), EU countries and specifically France, which is considered the pioneering country of gender equality reporting, remains underexplored. Therefore, in line with prior research, we believe that a gap in the literature remains regarding the study of the relationship between female top executives and ESG scores in French-listed companies. We thus formulate the following hypothesis:

H1b. The presence of female top executives in the boardroom is positively associated with ESG performance in French-listed companies.

2.3 The interaction of female leadership and cultural leadership on environmental, social and governance performance

The concept of board cultural diversity refers to the idea that board members belong to different cultures, have different ethnic backgrounds (Anderson *et al.*, 2010), cultural backgrounds (Al-Hiyari *et al.*, 2023) and different behaviours, beliefs and values (Hofstede, 2001) that shape their collective perception of the world. The current stream of research on the connection between women directors, directors with diverse cultural backgrounds and ESG is inconclusive. Ethnic diversity could have positive and negative consequences on corporate boards (Milliken and Martins, 1996). Directors with diverse cultural backgrounds tend to challenge and oppose management more openly than their counterparts. They would strengthen the board's independence and foster more fruitful international relations (Kang *et al.*, 2007). Board cultural diversity has been found to have a negative impact because of coordination problems, slower and more complex communication, which is a source of misunderstandings (Al-Hiyari *et al.*, 2023). Frijns *et al.* (2016) have found that the negative effects of cultural diversity on firms' performance are mainly concentrated among independent directors. They have nuanced their analysis by showing that the negative impact of cultural diversity on firms' performance is mitigated by the complexity of the firm and the size of foreign sales and operations. The few studies investigating the effects of culturally diverse boards on firms' financial and non-financial performance have produced contradictory and inconclusive results. A negative association between cultural diversity and financial performance has been shown by studies from Scholtz and Kieviet (2018) and from Menicucci and Paolucci (2022). According to Frijns *et al.* (2016), the negative impact of cultural diversity on performance is mitigated by the complexity of the firm and the size of its foreign sales and operations. In addition, they find that the negative effects of cultural diversity are concentrated among the independent directors. In contrast, Beji *et al.* (2021) and Dong *et al.* (2023) highlight a positive relationship between cultural diversity and ESG performance. Board members from different cultural backgrounds can help manage various stakeholders' interests and having foreign directors on boards improves business success (Ben-Amar *et al.*, 2013). Hence, the contradictory evidence in the literature on ESG performance within the context of board cultural and gender diversity provides sufficient ground for further research. To our knowledge, the literature on assessing the impacts of different types of board diversity on ESG performance is scarce for non-financial institutions and in France. Consequently, a gap exists in the literature about the relationship between the presence of female top executives and top executives with different cultures. Insofar our hypothesis states:

H2. The interaction effect between female leadership and cultural leadership in the boardroom is not statistically related to ESG performance in French-listed companies.

3. Research methodology

3.1 Sample

This research considers a data collection from a sample of French-listed companies belonging to the non-financial industry sectors.

Data were collected from *Refinitiv Eikon* database, which has already been used by scholars in ESG issues analysis (Demers *et al.*, 2021; Garcia *et al.*, 2017; Dorfleitner *et al.*, 2020; Nicolò *et al.*, 2021; Pozzoli *et al.*, 2022).

From the original population of French-listed companies, we removed banking, insurance and financial institutions as well as firms with no data available from *Refinitiv Eikon* on ESG performance and/or information on corporate governance or financial accounting data.

The Refinitiv methodology is designed to objectively measure a "company's" relative ESG performance and calculates ESG information based on disclosures from company annual reports, CSR reports and corporate websites, as well as from stock filings using measures that reflect on comparability, impact, data availability and industry relevance, with the adoption of weights to capture industry specificities (Aluchna *et al.*, 2022).

All the companies in our sample exceed thresholds introduced by 2017 French national law, forcing them to draw up an annual DPEF each year. We test our hypotheses using a sample of 185 French-listed firms covering the period of 2018–2022; therefore, we collected a total of 925 observations.

3.2 Variable specification and model tests

This study first applies the statistical models in equation (1) and then conducts a descriptive statistical analysis of the sample together with multiple regressions to determine the relationships between explanatory variables and ESG performance. By applying a balanced panel data regression based on the set of variables chosen, the empirical models to be tested (1, 2 and 3) are specified below. The coefficients in all equations are estimated based on our OLS panel data regression (fixed effects) analysis from 2018 to 2022.

To test *H1a* and *H1b*, our empirical models (1) and (2) are set out below:

$$ESG\_score = \beta_0 + \beta_1 Females + \beta_{2...i} Control\ \ Variables \quad (1)$$

$$ESG\_score = \beta_0 + \beta_1 Females + \beta_2 Executive\_Females + \beta_{3..i} Control\ \ Variables \quad (2)$$

To test *H2*, our empirical model with the interaction variable (3) is reported as follows:

$$\begin{aligned} ESG\_score = \beta_0 + \ \beta_1 Females + \beta_2 Executive\_Females + \beta_3 Cultural \\ + \beta_4 Executive\_Cultural + \beta_5 Executives\_Interaction \\ + \beta_{6..i} Control\ \ Variables \end{aligned} \quad (3)$$

where *ESG_Score* is the proxy of ESG performance for company i times t. The ESG score represents the dependent variable. Over 500 ESG measures at the company level are captured and calculated by Refinitiv Eikon database. These are divided into 10 categories, including 3 environmental categories, 4 social categories and 3 governance categories. These categories reformulate the three pillar scores and the final ESG score, which is based on publicly available data and reflects the company's ESG performance, commitment and effectiveness (Refinitiv, 2021); *Females* is the percentage of women on the board; *Executive_Females* is the percentage of female top executive members; *Cultural* is the percentage of board members whose cultural background is different from that of the company's headquarters. *Executive_Cultural* is the percentage of senior executives whose cultural background is different from that of the company's headquarters; *Executives_Interation* is the interaction effect between Executive_Females and Executive_Cultural.

We also identified several control variables which are reported as follows: *Board_Skills* is the percentage of board members who have either an industry specific background or a strong financial background; *Board_Indep* is the percentage of independent members in the board; *Board_Size* is the total number of board members at the end of the fiscal year; *Log_Asset* is the logarithm of total assets, which represents a proxy for company size; *Price* is the price closing for year *t*, which represents the market value per share for companies; *ROE* is the return on equity, which is the proxy for companies' profitability; *Log_Sales* is the logarithm of sales revenues from business activities, which represents a second proxy for company size; *D_E* is the index of net financial debt over common equity, which is the proxy for company solvency; and βi = various model parameters, i = the analysed company, t = the time period 2018–2022 and ε = the error term.

4. Empirical results

4.1 Descriptive data

The descriptive statistics of the numeric variables are presented in Table 2 and are used in the regression model applied to French-listed companies in 2018–2022. The descriptive results indicate that the mean of the ESG score is 56.13, while the single pillars are 55.27, 61.06 and 49.63, respectively, for E, S and G. The percentage of females on board is 42.21 on average, while the executive females are on average only 18.09.

The examination of the correlation matrix (not reported) shows that all correlation coefficients are lower than 0.8, which indicates that there are no serious correlation problems between a given explanatory variable and other explanatory variables in the model. Furthermore, all variables have a variance inflation factor (VIF) value (Table 3) of less than 10. These results allow us to conclude that there is no serious problem of multicollinearity.

4.2 Empirical model

We set the panel data regression analysis based on OLS to estimate the model's parameters and to input all the data into Stata software. The Model 1 indicates an R-squared value within of 0.1391. As shown in Table 4, there is a positive and significant relationship between females and ESG_score since the significance is at the 0.1% level and has a positive coefficient of 0.275. This empirically demonstrates that the number of females produces higher levels of ESG performance (Model 1). Furthermore, we found a strong positive relationship between executive

Table 2 Descriptive data

	Obs	Mean	St. dev.	Min	Max
ESG_score	925	56.129	23.224	1.800	94.174
E_pillar	925	55.272	28.954	0.000	99.139
S_pillar	925	61.061	25.598	1.051	97.066
G_pillar	925	49.630	23.740	2.951	96.499
Females	925	42.214	11.178	0.000	80.000
Executive_Females	925	18.096	15.824	0.000	75.000
Cultural	925	16.379	20.630	0.000	100.000
Executive_Cultural	925	14.272	19.351	0.000	100.000
Interaction_Executives	925	157.526	236.092	0.000	3230.769
Board_Skills	925	30.958	15.353	0.000	100.000
Board_Indep	925	47.060	21.091	0.000	100.000
Board_Size	925	10.940	3.722	2.000	30.000
LogTA	925	9.494	0.965	5.573	11.453
Price	925	60.487	109.627	0.000	1705.800
ROE	925	0.864	56.287	−1250.958	406.021
LogSales	925	9.193	1.018	4.839	11.391
D_E	925	0.772	2.921	−2.048	43.842

Source: Authors' own work

Table 3 Multicollinearity test

Variable	*VIF*	*1/VIF*
LogTA	4.10	0.243
Cultural	3.72	0.268
ExecutiveCultural	3.51	0.285
LogSales	3.43	0.291
Board_Size	1.63	0.613
Interaction_Executives	1.44	0.696
Executive_Females	1.32	0.755
Board_Indep	1.32	0.760
Females	1.21	0.824
Price	1.14	0.879
ROE	1.09	0.915
Board_skills	1.05	0.952
D_E	1.04	0.960
Mean VIF	*2.00*	

Source: Authors' own work

females and ESG since the significance is still at the 0.1% level (coefficient of 0.189). The results demonstrate that having female executive members on board generates a higher ESG score (Model 2). In contrast with the above results, Model 3 includes the interaction effect between the presence of executive females and senior executives with a cultural background different from the location of the corporate headquarters (InteractionExecutives). The interaction has not been statistically significant in relation to ESG performance, which means that two different profiles of "executives" that have been serving the organisation do not generate positive impacts (neither negative) on ESG issues.

5. Discussion and concluding remarks

Sustainability accounting has recently addressed a heterogeneous assortment of activities aiming at improving organisation's ESG performance following the Non-Financial Reporting Directive 95 / 2014 (Lehner *et al.*, 2019; Nicolò *et al.*, 2024a; Pizzi *et al.*, 2023a, 2023b). As mentioned, the scientific debate on many events that have radically impacted sustainability

Table 4 Empirical models

	(1) ESG_score	(2) ESG_score	(3) ESG_score
Females	0.275*** (0.0491)	0.235*** (0.0485)	0.232*** (0.0485)
ExecutiveFemales		0.189*** (0.0323)	0.187*** (0.0345)
Cultural			0.113** (0.0453)
ExecutiveCultural			0.110** (0.0503)
InteractionExecutives			−0.000530 (0.00163)
Board_Skills	0.148*** (0.0300)	0.130*** (0.0295)	0.135*** (0.0295)
Board_Indep	0.113*** (0.0316)	0.124*** (0.0310)	0.113*** (0.0313)
Board_Size	0.246 (0.178)	0.154 (0.174)	0.159 (0.175)
LogTA	1.151 (1.056)	1.044 (1.033)	1.176 (1.033)
Price	−0.718*** (0.161)	−0.601*** (0.159)	−0.597*** (0.159)
ROE	−0.00552 (0.00484)	−0.00560 (0.00474)	−0.00534 (0.00473)
LogSales	2.189** (0.878)	2.346*** (0.859)	2.394*** (0.857)
D_E	−0.0754 (0.0852)	−0.0518 (0.0834)	−0.0348 (0.0835)
_cons	44.35*** (15.74)	36.16** (15.46)	35.07** (15.41)
N	925	925	925
R-squared	0.1391	0.1774	0.1861
F-Stat (sig)	0.0000	0.0000	0.0000

Notes: Standard errors in parentheses. $^{*}p < 0.10$; $^{**}p < 0.05$; $^{***}p < 0.01$
Source: Authors' own work

accounting and non-financial reporting is communicated by a recent special issue that Venturelli *et al.* (2022) address. This call has motivated and inspired our study. As noticed, European non-financial regulation has recently been characterised by a high degree of attention paid by policymakers, practitioners and academics to the effects related to the transposition of Directive 2014 / 95/EU by the member states (Korca and Costa, 2021; Nicolò *et al*., 2024b; Pizzi *et al*., 2023a, 2023b). Within this Directive, specific issues have been found to be positively related to ESG practices, among which is the number of women (in %) on corporate BoDs.

The motivation for investigating the research question in the context of France is straightforward. France is considered one of the pioneers of non-financial reporting, specifically on gender equality, and has been mandating detailed requirements for over a decade (Aureli *et al*., 2018). In France, where social reporting became legal in 1977, the state's intervention in regulating non-financial reporting is strong, and the rules are quite detailed. Although current research on gender diversity and ESG performance, the authors know little about how different female roles (directors and/or executives) drive firms' outcomes and non-financial performance (El-Dyasty and Elamer, 2023). This study explores this notion in France's European market by examining the effect of female leadership on ESG scores. It underlines the relevance of different roles of females (directors and/or executives) in influencing ESG issues and may inform future policy and regulatory initiatives. By collecting data from *the Refinitiv Eikon database and using an OLS panel regression analysis for a sample of French-listed non-financial companies in* 2018–2022, we found that the presence of female directors and female executives is positively associated with ESG performance. Secondly, the interaction effect between female and cultural leadership does not impact ESG performance.

This paper adds to the scarce but increasing literature in accounting dealing with corporate governance and gender. This paper provides evidence on the importance of the gender and cultural diversity in the board growing power and influence on stakeholders' interests in France.

France represents a country with rising woman directors, arguably minimal regulatory intervention to gender diversity in boardroom, a richness of data-available companies, considerable economic volume and global impact, that is, France, which remains underexplored in existing studies and constitutes an interesting context of inquiry. We empirically support the argument that

French-listed companies could view gender diversity and leadership as a proxy for the quality of good governance. We also demonstrate that the interaction term female and cultural leadership among executives does not affect ESG performance.

This study also adds to the ongoing debate on the impact of gender diversity and female leadership in accounting and corporate governance studies. Regulators and, more generally, actors normally involved in policymaking may also ask organisations to establish a balance between the presence of male and female on board to promote ESG activities in their organisations. Our study will help policymakers develop specific laws and rules on gender equality in the future. The research agenda should assist policymakers by fostering an understanding of how and what could be changed in future regulation after the EU Directive 95 / 2014 (Pizzi *et al*., 2022, 2023a, 2023b).

Despite the importance of the current study, it has some limitations that can be overcome by further studies, as follows. Firstly, we use Refinitiv ESG scores, which are relevant to reflect the company's ESG performance, commitment and effectiveness, based on the self-reported non-financial information categorised into three dimensions – ESG information. Some shortcomings of the performance scoring exist. More specifically, in line with Aluchna *et al.* (2022, p. 9). *while the disclosure of immaterial data points does not affect the assessment, the lack of information on highly relevant aspects has a negative impact on the ''company's'' score*. Furthermore, the ESG data collected from the *Refinitiv Eikon* database presents one main limitation since the ESG performance is offered yearly. Having data monthly may provide a more accurate proxy. Secondly, the paper examines the latest available years from 2018 to 2022. Accordingly, future research could examine more years and perhaps focus on pre- and post-application of Directive 95 / 2014, and/or wait for the next years to verify what happens after the pandemic situation, the effects of which are still being felt. Thirdly, since different sectors can have different ESG performances (ESG score in service sectors may be higher than ESG score of polluting industry), and also various feminisation rates (service sector is more feminised than automobile, aircraft, petroleum or heavy industrial sector), additional future studies may refine the analysis. Lastly, future research should more effectively address the challenges of cultural diversity and intersectional approaches, including gender-based cultural diversity and the complexities between the "Global North and South" in relation to intersectionality and other diversity characteristics. In addition, comparative studies of companies in EU and non-EU countries would offer valuable insights for future contributions.

References

Adams, R.B. and Ferreira, D. (2009), "Women in the boardroom and their impact on governance and performance", *Journal of Financial Economics*, Vol. 94 No. 2, pp. 291-309.

Al-Hiyari, A., Ismail, A.I., Kolsi, M.C. and Kehinde, O.H. (2023), "Environmental, social and governance performance (ESG) and firm investment efficiency in emerging markets: the interaction effect of board cultural diversity", *Corporate Governance: The International Journal of Business in Society*, Vol. 23 No. 3, pp. 650-673.

Ali, M., Grabarski, M.K., Ahmed, S. and Imtiaz, N. (2023), "Does leadership gender diversity drive corporate social responsibility and organisational outcomes? The role of organisation size", *Australian Journal of Management*, Vol. 3128962231160650.

Aluchna, M., Roszkowska-Menkes, M. and Kamiński, B. (2022), "From talk to action: the effects of the non-financial reporting directive on ESG performance", *Meditari Accountancy Research*, Vol. 31 No. 7, pp. 1-25.

Anderson, R.C., Reeb, D.M., Upadhyay, A. and Zhao, W. (2010), "The economics of director heterogeneity", *Financial Management*, Vol. 40 No. 1, pp. 5-38.

Aureli, S., Salvatori, F. and Magnaghi, E. (2018), "The transposition of the non-financial reporting directive in UK, France and Italy", *Symphonya. Emerging Issues in Management*, Vol. 1 No. 1, pp. 48-67.

Baumüller, J. and Sopp, K. (2022), “Double materiality and the shift from non-financial to European sustainability reporting: review, outlook and implications”, *Journal of Applied Accounting Research*, Vol. 23 No. 1, pp. 8-28.

Bear, S., Rahman, N. and Post, C. (2010), “The impact of board diversity and gender composition on corporate social responsibility and firm reputation”, *Journal of Business Ethics*, Vol. 97 No. 2, pp. 207-221.

Beji, R., Yousfi, O., Loukil, N. and Omri, A. (2021), “Board diversity and corporate social responsibility: empirical evidence from France”, *Journal of Business Ethics*, Vol. 173 No. 1, pp. 133-155.

Ben-Amar, W., Chang, M. and McIlkenny, P. (2017), “Board gender diversity and corporate response to sustainability initiatives: evidence from the carbon disclosure project”, *Journal of Business Ethics*, Vol. 142 No. 2, pp. 369-383.

Ben-Amar, W., Francoeur, C., Hafsi, T. and Labelle, R. (2013), “What makes better boards? A closer look at diversity and ownership”, *British Journal of Management*, Vol. 24 No. 1, pp. 85-101.

Berraies, S. and Rejeb, W.B. (2019), “Boards of directors’ roles and size: what effects on exploitative and exploratory innovations? Case of listed Tunisian firms”, *International Journal of Entrepreneurship and Innovation Management*, Vol. 23 No. 2, pp. 161-179.

Brammer, S., Millington, A. and Pavelin, S. (2009), “Corporate reputation and women on the board”, *British Journal of Management*, Vol. 20 No. 1, pp. 17-29.

Burkhardt, K., Nguyen, P. and Poincelot, E. (2020), “Agents of change: women in top management and corporate environmental performance”, *Corporate Social Responsibility and Environmental Management*, Vol. 27 No. 4, pp. 1591-1604.

Cabeza-García, L., Fernández-Gago, R. and Nieto, M. (2018), “Do board gender diversity and director typology impact CSR reporting?”, *European Management Review*, Vol. 15 No. 4, pp. 559-575.

Cambrea, D.R., Tenuta, P. and Vastola, V. (2019), “Female directors and corporate cash holdings: monitoring vs executive roles”, *Management Decision*, Vol. 58 No. 2, pp. 295-312.

da Silva Monteiro, S.M. and Aibar-Guzmán, B. (2010), “Determinants of environmental disclosure in the annual reports of large companies operating in Portugal”, *Corporate Social Responsibility and Environmental Management*, Vol. 17 No. 4, pp. 185-204.

Daily, C.M. and Dalton, D.R. (1994), “Corporate governance and the bankrupt firm: an empirical assessment”, *Strategic Management Journal*, Vol. 15 No. 8, pp. 643-654.

Demers, E., Hendrikse, J., Joos, P. and Lev, B. (2021), “ESG did not immunize stocks during the Covid-19 crisis, but investments in intangible assets did”, *Journal of Business Finance & Accounting*, Vol. 48 Nos 3/4, pp. 433-462.

Dong, Y., Liang, C. and Wanyin, Z. (2023), “Board diversity and firm performance: impact of ESG activities in China”, *Economic Research-Ekonomska Istraživanja*, Vol. 36 No. 1, pp. 1592-1609.

Dorfleitner, G., Kreuzer, C. and Sparrer, C. (2020), “ESG controversies and controversial ESG: about silent saints and small sinners”, *Journal of Asset Management*, Vol. 21 No. 5, pp. 393-412.

Dwivedi, D.N., Tadoori, G. and Batra, S. (2023), “ESG ratings and impact of women leadership in organizations: a case study from India”, in Dwivedi, D.N., Tadoori, G. and Batra, S. (Eds) “impact of women leadership and ESG ratings and in organisations: a time series segmentation study”, *Academy of Strategic Management Journal*, Vol. 22, pp. 1-6.

Eagly, A.H. (1987), *Sex Differences in Social Behavior: A Social-Role Interpretation*, Lawrence Erlbaum.

EIGE (2021), “Largest listed companies: presidents, board members and employee representatives”, Gender Statistics Database, available at: https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_bus_bus__wmid_comp_compbm/datatable

El-Dyasty, M.M. and Elamer, A.A. (2023), “Female leadership and financial reporting quality in Egypt”, *Journal of Applied Accounting Research*, Vol. 24 No. 3, pp. 583-605.

European Commission (2020), “A union of equality: gender equality strategy 2020–2025”, available at: https://ec.europa.eu/newsroom/just/items/682425/en

European Reporting Lab (2021), “Final report – proposals for a relevant and dynamic EU sustainability reporting standard-setting”, Brussels, available at: https://finance.ec.europa.eu/publications/reports-development-eu-sustainability-reporting-standards_en

Fernandez-Feijoo, B., Romero, S. and Ruiz-Blanco, S. (2014), “Women on boards: do they affect sustainability reporting?”, *Corporate Social Responsibility and Environmental Management*, Vol. 21 No. 6, pp. 351-364.

Fondas, N. (2000), “Women on boards of directors: gender bias or power threat?”, in Burke, R.J. and Mattis, M.C. (Eds), *Women on Corporate Boards of Directors, Issues in Business Ethics*, Vol. 14.

Frijns, B., Dodd, O. and Cimerova, H. (2016), “The impact of cultural diversity in corporate boards on firm performance”, *Journal of Corporate Finance*, Vol. 41, pp. 521-541.

Galbreath, J. (2011), “Are there gender-related influences on corporate sustainability? A study of women on boards of directors”, *Journal of Management & Organization*, Vol. 17 No. 1, pp. 17-38.

Gani, L. and Jermias, J. (2006), “Investigating the effect of board independence on performance across different strategies”, *The International Journal of Accounting*, Vol. 41 No. 3, pp. 295-314.

Garcia, A.S., Mendes-Da-Silva, W. and Orsato, R.J. (2017), “Sensitive industries produce better ESG performance: evidence from emerging markets”, *Journal of Cleaner Production*, Vol. 150, pp. 135-147.

Garcia-Meca, E., Garcia-Sanchez, I.M. and Martinez-Ferrero, J. (2015), “Board diversity and its effects on bank performance: an international analysis”, *Journal of Banking & Finance*, Vol. 53, pp. 202-214.

García-Sánchez, I.M., da Silva Monteiro, S.M., Piñeiro-Chousa, J.R. and Aibar-Guzmán, B. (2023), “Climate change innovation: does board gender diversity matter?”, *Journal of Innovation & Knowledge*, Vol. 8 No. 3, p. 100372.

Gul, F.A., Srinidhi, B. and Ng, A.C. (2011), “Does board gender diversity improve the informativeness of stock prices? ”, *Journal of Accounting & Economics*, Vol. 51 No. 3, pp. 314-338.

Gul, S., Iqbal, J. and Javed, A. (2022), “Women empowerment policy-2017 of Khyber Pakhtunkhwa, Pakistan: formation, annual funds allocation, and implementation gap analysis”, *Journal of Accounting and Finance in Emerging Economies*, Vol. 8 No. 1, pp. 45-58.

Harjoto, M.A., Laksmana, I. and Lee, W.E. (2020), “Female leadership in corporate social responsibility reporting: effects on writing, readability and future social performance”, *Advances in Accounting*, Vol. 49, p. 100475.

Hillman, A.J., Keim, G.D. and Luce, R.A. (2001), “Board composition and stakeholder performance: do stakeholder directors make a difference?”, *Business & Society*, Vol. 40 No. 3, pp. 295-314.

Hofstede, G. (2001), *Culture’s Consequences: Comparing Values, Behaviours, Institutions, and Organizations across Nations*, Sage, Beverly Hills, CA.

Huse, M. and Solberg, A.G. (2006), “Gender-related boardroom, dynamics: how Scandinavian women make and can make contributions on corporate boards”, *Women in Management Review*, Vol. 21 No. 2, pp. 113-130.

Hussain, N., Rigoni, U. and Orij, R.P. (2018), “Corporate governance and sustainability performance: analysis of triple bottom line performance”, *Journal of Business Ethics*, Vol. 149 No. 2, pp. 411-432.

Joecks, J., Pull, K. and Vetter, K. (2013), “Gender diversity in the boardroom and firm performance: what exactly constitutes a ‘critical mass’?”, *Journal of Business Ethics*, Vol. 118 No. 1, pp. 61-72.

Kang, H., Cheng, M. and Gray, S.J. (2007), “Corporate governance and board composition: diversity and independence of Australian boards”, *Corporate Governance: An International Review*, Vol. 15 No. 2, pp. 194-207.

Kanter, R.M. (1977), *Men and Women of the Corporation*, Basic Books, New York, NY.

Khan, I., Khan, I. and bin Saeed, B. (2019), “Does board diversity affect quality of corporate social responsibility disclosure? Evidence from Pakistan”, *Corporate Social Responsibility and Environmental Management*, Vol. 26 No. 6, pp. 1371-1381.

Klettner, A., Clarke, T. and Boersma, M. (2014), “The governance of corporate sustainability: empirical insights into the development, leadership and implementation of responsible business strategy”, *Journal of Business Ethics*, Vol. 122 No. 1, pp. 145-165.

Konrad, A.M., Kramer, V. and Erkut, S. (2008), “Critical mass: the impact of three or more women on corporate boards”, *Organizational Dynamics*, Vol. 37 No. 2, pp. 145-164.

Korca, B. and Costa, E. (2021), “Directive 2014/95/EU: building a research agenda”, *Journal of Applied Accounting Research*, Vol. 22 No. 3, pp. 401-422.

Lehner, O., Harrer, T. and Quast, M. (2019), “Building institutional legitimacy in impact investing: strategies and gaps in financial communication and discourse”, *Journal of Applied Accounting Research*, Vol. 20 No. 4, pp. 416-438.

Liu, Y., Wei, Z. and Xie, F. (2014), “Do women directors improve firm performance in China?”, *Journal of Corporate Finance*, Vol. 28, pp. 169-184.

Mallin, C.A. and Michelon, G. (2011), “Board reputation attributes and corporate social performance: an empirical investigation of the US best corporate citizens”, *Accounting and Business Research*, Vol. 41 No. 2, pp. 119-144.

Manita, R., Bruna, M.G., Dang, R. and Houanti, L.H. (2018), “Board gender diversity and ESG disclosure: evidence from the USA”, *Journal of Applied Accounting Research*, Vol. 19 No. 2, pp. 206-224.

Menicucci, E. and Paolucci, G. (2022), “Board diversity and ESG performance: evidence from the Italian banking sector”, *Sustainability*, Vol. 14 No. 20, p. 13447.

Milliken, F.J. and Martins, L.L. (1996), “Searching for common threads: understanding the multiple effects of diversity in organisational groups”, *The Academy of Management Review*, Vol. 21 No. 2, pp. 402-433.

Nguyen, T.H.H., Ntim, C.G. and Malagila, J.K. (2020), “Women on corporate boards and corporate financial and non-financial performance: a systematic literature review and future research agenda”, *International Review of Financial Analysis*, Vol. 71, p. 101554.

Nicolò, G., vZampone, G., Sannino, G. and De Iorio, S. (2021), “Sustainable corporate governance and non-financial disclosure in Europe: does the gender diversity matter?”, *Journal of Applied Accounting Research*, Vol. 23 No. 1, pp. 227-249.

Nicolò, G., Santis, S., Incollingo, A. and Tartaglia Polcini, P. (2024a), “Value relevance research in accounting and reporting domains: a bibliometric analysis”, *Accounting in Europe*, Vol. 21 No. 2, pp. 176-211, doi: 10.1080/17449480.2023.2292654.

Nicolò, G., Zanellato, G., Esposito, B. and Tiron-Tudor, A. (2024b), “Cultural dimensions and sustainability disclosure in the banking sector: insights from a qualitative comparative analysis approach”, *Business Strategy and the Environment*, Vol. 33 No. 8, pp. 8086-8101, doi: 10.1002/bse.3911.

Nuber, C. and Velte, P. (2021), “Board gender diversity and carbon emissions: European evidence on curvilinear relationships and critical mass”, *Business Strategy and the Environment*, Vol. 30 No. 4, pp. 1958-1992, doi: 10.1002/bse.2727.

Pizzi, S., Caputo, A., Venturelli, A. and Caputo, F. (2022), “Embedding and managing blockchain in sustainability reporting: a practical framework”, *Sustainability Accounting, Management and Policy Journal*, Vol. 13 No. 3, pp. 545-567.

Pizzi, S., Principale, S. and De Nuccio, E. (2023a), “Material sustainability information and reporting standards. Exploring the differences between GRI and SASB”, *Meditari Accountancy Research*, Vol. 31 No. 6, pp. 1654-1674.

Pizzi, S., Principale, S., Fasiello, R. and Imperiale, F. (2023b), “The institutionalisation of social and environmental accounting practices in Europe”, *Journal of Applied Accounting Research*, Vol. 24 No. 5, pp. 816-838.

Pozzoli, M., Pagani, A. and Paolone, F. (2022), “The impact of audit committee characteristics on ESG performance in the European Union member states: empirical evidence before and during the Covid-19 pandemic”, *Journal of Cleaner Production*, Vol. 371, p. 133411.

Pucheta-Martínez, M.C., Gallego-Á Lvarez, I. and Bel-Oms, I. (2021), “Corporate social and environmental disclosure as a sustainable development tool provided by board sub-committees: do women directors play a relevant moderating role?”, *Business Strategy and the Environment*, Vol. 30 No. 8, pp. 3485-3501.

Rao, K. and Tilt, C. (2016), “Board composition and corporate social responsibility: the role of diversity, gender, strategy and decision making”, *Journal of Business Ethics*, Vol. 138 No. 2, pp. 327-347.

Rosener, J.B. (1995), *America’s Competitive Secret: Utilising Women as a Management Strategy*, Oxford University Press.

Scholtz, H. and Kieviet, S. (2018), “The influence of board diversity on company performance of South African companies”, *Journal of African Business*, Vol. 19 No. 1, pp. 105-123.

Selby, C.C. (2000), “From male locker room to co-executive director boardroom: a twenty-five year perspective”, in Burke R.J. and Mattis, M.C. (Eds.), *Women on Corporate Boards of Directors*, Kluwer Academic Publishers, pp. 97-109.

Stiles, P. (2001), “The impact of the board on strategy: an empirical examination”, *Journal of Management Studies*, Vol. 38 No. 5, pp. 627-650.

Terjesen, S., Couto, E.B. and Francisco, P.M. (2016), “Does the presence of independent and female directors impact firm performance? A multi-country study of board diversity”, *Journal of Management & Governance*, Vol. 20 No. 3, pp. 447-483.

Terjesen, S., Sealy, R. and Singh, V. (2009), “Women directors on corporate boards: a review and research agenda”, *Corporate Governance: An International Review*, Vol. 17 No. 3, pp. 320-337.

United Nation Global Compact (2005), “Who cares wins: connecting financial markets”, available at: www.unglobalcompact.org/docs/issues_doc/Financial_markets/who_cares_who_wins.pdf

United Nations (2016), “The sustainable development goals 2016”, *eSocialSciences.*

Velte, P. (2016), “Women on management board and ESG performance”, *Journal of Global Responsibility*, Vol. 7 No. 1, pp. 98-109, doi: 10.1108/JGR-01-2016-0001.

Venturelli, A., Caputo, F., Leopizzi, R. and Pizzi, S. (2018), “The state of art of corporate social disclosure before the introduction of non-financial reporting directive: a cross country analysis”, *Social Responsibility Journal*, Vol. 15 No. 4, pp. 409-423.

Venturelli, A., Fasan, M. and Pizzi, S. (2022), “Guest editorial rethinking non-financial reporting in Europe: challenges and opportunities in revising directive 2014/95/EU”, *Journal of Applied Accounting Research*, Vol. 23 No. 1, pp. 1-7.

Wei, F., Ding, B. and Kong, Y. (2017), “Female directors and corporate social responsibility: evidence from the environmental investment of Chinese listed companies”, *Sustainability*, Vol. 9 No. 12, p. 2292.

Wheelen, T.L., Hunger, J.D., Hoffman, A.N. and Bamford, C.E. (2017), *Strategic Management and Business Policy*, Pearson, p. 55.

Zampone, G., Nicolò, G., Sannino, G. and De Iorio, S. (2024), “Gender diversity and SDG disclosure: the mediating role of the sustainability committee”, *Journal of Applied Accounting Research*, Vol. 25 No. 1, pp. 171-193, doi: 10.1108/JAAR-06-2022-0151.

Zhang, J.Q., Zhu, H. and Ding, H.B. (2013), “Board composition and corporate social responsibility: an empirical investigation in the post Sarbanes-Oxley era”, *Journal of Business Ethics*, Vol. 114 No. 3, pp. 381-392.

Further reading

Bilimoria, D. and Wheeler, J.V. (2000), “Women corporate directors: current research and future directions”, *Women in Management: Current Research Issues*, Vol. 2, pp. 138-163.

Deloitte (2019), “Connect for impact 2019 global impact report”, available at: www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/about-deloitte-global-report-inclusion-and-diversity-2019.pdf

Francoeur, C., Labelle, R. and Sinclair-Desgagné, B. (2008), “Gender diversity in corporate governance and top management”, *Journal of Business Ethics*, Vol. 81 No. 1, pp. 83-95.

Johnson, S.G., Schnatterly, K. and Hill, A.D. (2013), “Board composition beyond independence: social capital, human capital, and demographics”, *Journal of Management*, Vol. 39 No. 1, pp. 232-262.

Kyaw, K., Treepongkaruna, S. and Jiraporn, P. (2022), “Board gender diversity and environmental emissions”, *Business Strategy and the Environment*, Vol. 31 No. 7, pp. 2871-2881.

Lehner, O.M. and Harrer, T. (2019), “Accounting for economic sustainability: environmental, social and governance perspectives”, *Journal of Applied Accounting Research*, Vol. 20 No. 4, pp. 365-371.

Pan, Y. and Sparks, J.R. (2012), “Predictors, consequence, and measurement of ethical judgments: review and meta-analysis”, *Journal of Business Research*, Vol. 65 No. 1, pp. 84-91.

Pathan, S. and Faff, R. (2013), “Does board structure in banks really affect their performance?”, *Journal of Banking & Finance*, Vol. 37 No. 5, pp. 1573-1589.

Post, C., Rahman, N. and McQuillen, C. (2015), “From board composition to corporate environmental performance through sustainability-themed alliances”, *Journal of Business Ethics*, Vol. 130 No. 2, pp. 423-435.

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