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Does a Board Characteristic Moderate the Relationship between CSR Practices and Financial Performance? Evidence from European ESG Firms

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Abstract: This study aims to examine the potential effect that corporate social responsibility practices (CSR) have on financial performance in ESG firms, using the moderating role of board characteristics. To test the moderating effect of the board characteristics in the relationship between CSR practices and financial performance, we applied linear regressions with panel data using the Thomson Reuters ASSET4 database from European countries in analyzing data of 225 listed companies between 2015 and 2019. The results show that board characteristics partially moderate the relationship between CSR practices and financial performance in European ESG firms. In addition, this study indicates that CSR practices affect the firm's financial performance positively. The study findings appended a new dimension to governance research that could provide policymakers and regulators with a valuable source of information to strengthen governance mechanisms for better financial performance. Previous studies mostly investigate the direct effect of corporate governance on financial performance. A few studies examine the moderating effect of CSR practice. This paper contributes by investigating the moderating effect of governance mechanisms in the ESG context.

Keywords: CSR practice; financial performance; corporate governance; environmental social and governance (ESG)



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1. Introduction

Corporate social responsibility is an important topic in the fields of management, finance, and public relations, and it is essential to increase the trust of stakeholders in the company (Plumlee et al. 2015; Tomo and Landi 2017; Liu and Lee 2019; Ongsakul et al. 2020; Chouaibi and Chouaibi 2021; Rossi et al. 2021). The recent growth in CSR has had a significant effect on the role of the company and has contributed to a shift in accounting standards (Aribi and Gao 2010; Plumlee et al. 2015; Liu and Lee 2019). On the other hand, corporate governance plays an important role, including improving corporate accountability, building a corporate reputation, and providing valuable investment decision-making information (Gray et al. 1996; Friedman and Miles 2001; Liu and Lee 2019; Ongsakul et al. 2020). In academic research, firms are now seen as entities that function within society and are responsible for ensuring social and economic fairness while expanding the interests of stakeholders (including shareholders), in line with stakeholder theory (Al-Alawi et al. 2007; Chouaibi and Chouaibi 2021). The role of CSR as a means of discharging transparency has become more important (Lee et al. 2014). Furthermore, CSR initiatives are frequently integrated from the core business of a company, which is likely to increase their contribution to short and long-term success. Isaksson and Woodside (2016) affirmed that when evaluating CSR and the financial performance of a business, scholars should combine internal and external influences. Although corporate governance focuses on resolving the issue of the agency's alignment between the interests of management and shareholders,

corporate social responsibility focuses on stakeholders other than shareholders (Nawaiseh 2015). Sacconi (2011) stated that social responsibility is the principle of corporate governance and its goals as the result of its strategic management. Thus, the option of the best corporate governance system may be considered the most acceptable solution for the 'social contract'. In addition, some researchers conclude that corporate governance has a major effect on the dimensions of CSR (Jones et al. 2009; Chouaibi et al. 2021a). As a consequence, the integration between corporate governance and CSR strategies is a new empirical research strand that tries to connect the strategies of firm CSR to financial results (Ntim and Soobaroyen 2013; Peng and Yang 2014; Chouaibi et al. 2021b). Governance practices empirical research has concentrated mainly on its effect on the financial results of a firm (Kumar and Zattoni 2015; Pucheta-Martínez and Gallego-Álvarez 2019). The board of directors of the firm is responsible for developing effective structures for monitoring and managing the operations of the firms. The board is also responsible for the accountability and transparency of an organization by data disclosure. For a large variety of stakeholders, boards have mutual responsibilities.

Consequently, in this article, we, first, attempt to identify the circumstances in which societal practices create competitive advantages for the ESG company and thus generate high financial performance. Second, this article aims to investigate how board characteristics reinforce the relationship between CSR practices and financial performance.

This paper contributes to the existing literature in several ways. First of all, the main motivation of this article is the shortage of research papers in the context of the relationship between board characteristics, corporate social responsibility, and financial performance. Theoretically, the possible contribution of this research aims to highlight the crucial importance of the financial performance concept, along with the notion of corporate social responsibility and its relationship with board characteristics and to outline the most important significance of adopting the ESG approach.

The results show that corporate social responsibility practices have a positive impact on financial performance. The reached empirical results prove to indicate that both the board size and independence have strengthened the impact of corporate social responsibility on financial performance. Also noteworthy, is the fact that the appointment of an independent non-executive chairman weakens the relationship between CSR practices and financial performance and holds for firms with no independent chairman.

The results of this study add to the literature in many ways. First, its findings provide additional useful insights into the existence and role of firms' governance mechanisms. Second, the findings of this study are also expected to provide input for users of financial statements, sustainability reports, and corporate managers, as it helps in understanding the relationship between corporate governance and CSR, which would improve corporate financial performance. Third, this research explores the moderating role of corporate governance between CSR practices and financial performance. Findings from this paper provide implications for global regulators and policymakers. Our research offers the information user a vision to better assess the financial performance of the company and its future growth opportunities in a context where corporate social responsibility and corporate governance occupy a central position in business valuation. The index of ESG firms (environmental, social, and governance) is objectively and consistently defined in measures permitting like-for-like measurement of firm-specific CSR practices. This index is captured in this paper as an index used as a proxy of firms' engagement on CSR, which is provided by the ASSET4[®] database of Data-Stream, by Thomson Reuters.

The rest of the paper is structured as follows: In Section 2, the literature is discussed based on the hypotheses constructed. Section 3 outlines the method of data collection and variable measurement. As for the empirical results, the discussions of our findings and their implications are presented in Sections 4 and 5. Finally, Section 6 concludes the paper, presents the limitations and provides suggestions for future research.

2. Prior Literature and Hypotheses Development

2.1. Effects of CSR Practices on Financial Performance

The question of how corporate social responsibility practices affect a firm's financial performance has been the subject of contentious debate. Much research about CSR practices has been conducted (Ahan et al. 2015; El Ghouli et al. 2016). However, there are still theoretical and empirical challenges that need to be answered to the effect of corporate social responsibility on financial performance. According to the theory of the stakeholder, through its impact on revenue and costs, companies may derive various benefits from performing CSR activities (Tomo and Landi 2017; Ongsakul et al. 2020; Chouaibi and Chouaibi 2021). CSR may produce additional income directly or indirectly.

Empirical research on the effect of CSR activities on company results indicates unclear outcomes. Thus, Russo and Fouts (1997) and Chouaibi et al. (2021a) found positive effects of CSR on financial performance. Consequently, corporate social responsibility (CSR) can be perceived as an excellent tool for enhancing the legitimacy of the company. Aguinis and Glavas (2012) find that CSR has a marginally positive effect on company results. In fact, El El Ghouli et al. (2016) also discovered that in nations with poorer market institutions, CSR is more strongly linked to firm value. Financial performance demands social and environmental issues and also to take some constructive steps while showing tolerance for negative company data (Servaes and Tamayo 2013). On the other hand, the consumer-oriented CSR practices, intangible attributes, such as reliability for consistency, and reliability can be used, which can eventually establish product differentiations and generate more revenues (Lev et al. 2010). Thus, CSR practices help to minimize costs and increase the financial performance (El Ghouli et al. 2011; Baalouch et al. 2019; Wong et al. 2020; Murashima 2020). Thus, the theoretical basis of these practices is represented by legitimacy theory. Hence, we propose our first hypothesis as follows:

Hypothesis 1 (H1). *There is a positive association between CSR practices and financial performance.*

2.2. CSR Practices and Financial Performance: The Moderating Effect of Board Characteristics

The board of directors is often considered one of the essential components of the corporate governance system. The finance literature defines corporate governance as "the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment" (Murtaza et al. 2014; Kiran et al. 2015; Jie and Hasan 2016). The board of directors is central to the commercial governance system (Uwuigbe 2011; Cormier et al. 2017). An important factor perceived to affect the board's effectiveness is the size (Belkhir 2009; Achdi and Ameer 2011).

The moderating effect of Board size. Larger board decisions can reflect the compromise of stakeholders' competing demands. Therefore, decisions by larger boards can address stakeholders' concerns better than those of smaller boards. Agency problems become more severe with a larger board, so it becomes easier for the CEO to manipulate and monitor the board (Achdi and Ameer 2011; Jilani and Chouaibi 2021). Nonetheless, larger boards can be more efficient, as a larger number of people can be separated into the workload of monitoring managers. Larger boards are more likely to reinforce the influence of CSR on financial results with better addressed CSR and more tools provided for consulting and tracking roles. Previous research recognizes that large boards have a greater diversity of expertise and experience, which in turn has a positive influence on the reputation of companies and their image (Ntim and Soobaroyen 2013; Jizi et al. 2014).

Therefore, a literature review offers a number of empirical findings that maintain the positive relationship between the board size and the CSR. Ntim and Soobaroyen (2013) use of a sample of listed companies between 2002 and 2009 supports that larger boards lead to greater investments in CSR operations. Jo and Harjoto (2011) give proof that firms with larger boards are taking the CSR pledge. That is to say, broader boards ensure that corporate laws and guidelines, such as CSR, are complied with (Ntim and Soobaroyen 2013). Given that the previous debate presents reasons that endorse positive board-size moderating positions, we suggest the following hypothesis:

Hypothesis 2. *There is a positive relationship between board size and financial performance.*

Hypothesis 2a. *The link between CSR practices and financial performance will be positively moderated by board size.*

The moderating effect of board independence. Independent directors have distinct spurs, values, and time skies relative to internal directors, who normally pay attention to lucrative short-term targets (Post et al. 2011). Boards of directors are referred to as the entity that substantially upholds the interest of all concerned stakeholders. Thus, to gain and further substantiate the involvement of stakeholders, it is important to have both managers and non-executive members on the board (De Andres and Vallelado 2008; Fuzi et al. 2016).

The extensive literature on corporate governance demonstrates that the independence of the board has a positive impact on the social responsibilities of the firm. For example, Jizi et al. (2014) found a positive and substantive relationship between board independence and CSR practices. More specifically, they argue that independent external directors on the board would ameliorate the oversight and control business of the board to assure that shareholders' social interests are bulwarked. They also indicate that independent directors are less likely to concentrate on short-term targets than on long-term targets that could be generated by investment in CSR. Ntim and Soobaroyen (2013) suggest that independent board members strengthen management oversight, allowing executives to participate in sustainable CSR activities with potentially beneficial consequences for the financial performance of their firms. They are better at engaging multiple stakeholders and have more sensitive strategies, juggling short-term and long-term priorities, leading to a positive moderating impact in the relationship between CSR and financial performance (Liao et al. 2019). Board independence is supposed to play a moderating role in this relationship. Thus, we assume that:

Hypothesis 3. *There is a positive relationship between the board's independence and financial performance.*

Hypothesis 3a. *The link between CSR practices and financial performance will be positively moderated by board independence.*

The moderating effect of CEO duality. Duality occurs when the same person holds both positions in a company at the same time (Naushad and Malik 2015). An individual who holds these roles has remarkable power to govern the board and the management. If the CEO is also the chairman, the efficiency of the board of directors in conducting the role of governance can be undermined by the concentration of decision-making and control powers in the hands of the same person (Haniffa and Cooke 2002). In the other hand, the theory of the agency predicts that role duality generates individual power for the CEO that would inhibit the board's effective control (Donker et al. 2008). Tuggle et al. (2010) proposed that, largely for independence purposes, these two positions should be separated. Although the division of roles is recommended, certain organizations are not prepared to separate the roles completely categorically (Bukair and Rahman 2015).

Multiple CEO positions lead to problems in carrying out their respective duties, leading to confusion and mismanagement (Vo and Nguyen 2014). However, Hajes and Anis (2018) reported a positive relationship between CEO duality and a firm's financial performance. Moreover, as aforementioned, Bukair and Rahman (2015) find a mixed outcome between CEO duality and a firm's financial performance. Thus, such duality creates a greater power in decision-making that allows CEOs to make decisions that do not take into account the greater interests of a wider variety of stakeholders. As a result, the duality could affect the governance position of the board over sustainable practices, including CSR practices (Lattemann et al. 2009). A negative association between the duality of CEO and chairman positions and the level of CSR practices has been documented in several empirical studies (Muttakin et al. 2015; Sundarasan et al. 2016). In this regard, empirical

evidence about the relationship and the interaction between CEO duality and corporate social responsibility is mixed and inconclusive. Based on what has been advanced, we can say that the CEO duality moderates the relationship between CSR practices and financial performance and, therefore, the assumption will be formulated as follows:

Hypothesis 4. *There is a significant relationship between CEO duality and financial performance.*

Hypothesis 4a. *The link between CSR practices and financial performance will be moderated by CEO duality.*

3. Research Design

3.1. Sample Selection and Data Collection

This study focuses on examining the associations between CSR practices and the firm's performance with the moderating effect of corporate governance mechanisms. The population of this study consists of firms belonging in European countries during the period 2015–2019. The data were collected from different sources. First, the primary data source is ASSET4 from Thomson Reuters Data Stream. Thomson Reuters ASSET4 is a leading source of objective ESG information worldwide. Second, data related to the corporate governance mechanisms were manually extracted from each firm's annual reports for the years concerned. The sample selection is summarized in Table 1; Panel A describes the sample selection; Panel B provides the distributional properties of the full sample by country.

Table 1. Sample selection.

Panel A: Sample selection			
Selection procedure	Firms	Observations	
Initial sample	295	1475	
Firms with missing data	(47)	(235)	
Banks and Financial institutions	(23)	(115)	
Final sample	225	1125	
Panel B: Sample distribution by country			
Country	Firms	Observations	%
France	79	395	35.12
Spain	41	205	18.23
Germany	73	365	32.44
Italie	32	160	14.21
Total	225	1125	100

Notes: Panel A describes the sample selection, and Panel B provides the distributional properties of the full sample by country. Observations are the total of the firm-years observations by industry.

3.2. Variables

To analyze the impact of the moderating effect of different aspects of corporate governance on the relationship between CSR and financial performance, the measures of variables are defined below.

3.2.1. Dependent Variable: Financial Performance

The dependent variable used in this study is the financial performance of firms. Many accounting and financial ratios: Tobin's q (TOBINQ), return on assets (ROA), return on equity (ROE), and market-to-book value (MTBV), were used as the indicators of business performance (Barnett and Salomon 2012; Delmas et al. 2015). In this study, in order to measure firm performance, we use return on assets (ROA).

3.2.2. Independent Variables

As discussed in the literature review, most studies break down CSR practices into social and environmental performance scores. Similarly, as in the work of [Ioannou and Serafeim \(2012\)](#) and [Huang et al. \(2014\)](#), we will adopt a measure developed by ASSET4 to measure the CSR practices, CSR practices measure a company’s capacity to generate trust and loyalty ([Ioannou and Serafeim 2012](#); [Huang et al. 2014](#)). It also measures a firm’s ability to reduce environmental risk and generate environmental opportunities in order to minimize the environmental impact on living and non-living natural systems, including the air, land, and water, as well as complete ecosystems.

3.2.3. Moderating Variables

Board size (BOA_SIZE): As part of our study, we are interested in the role of the board as a mechanism of corporate governance, as well as the size, which is measured by the total number of directors. This measure has been employed by several authors, [Cornett et al. \(2008\)](#), [Ravina and Sapienza \(2009\)](#), [Leng and Ding \(2011\)](#), [Sun et al. \(2012\)](#), [Hunziker \(2013\)](#), [Al-Janadi et al. \(2013\)](#), [Akbas et al. \(2016\)](#).

Board Independence (BOA_IND): This variable is determined by the proportion of independent administrators compared to the total number of administrators. This measure has been used in many studies, including [Aboody and Lev \(2000\)](#), [Van den Van den Berghe and Baelden \(2005\)](#), [Striukova et al. \(2008\)](#), and [Baharudin and Marimuthu \(2019\)](#).

CEO duality (DUAL): The duality of functions is a binary variable equal to 1 if the two functions of the chief executive officer and the chairman of the board of directors are combined and 0 if not. This measure has been used in several studies, such as those by [Datta et al. \(1991\)](#), [Jensen and Zajac \(2004\)](#), [Chau and Gray \(2010\)](#), and [Ammari et al. \(2014\)](#).

3.2.4. Control Variables

In terms of control variables, our analysis used two variables that are related to the firm’s characteristics and that affect the endogenous variable, i.e., financial performance. The two control variables are firm size and leverage. In addition, [Table 2](#) includes all variables and their measurements.

Table 2. Description of variables.

Variables	Coding	Measurement	Source
Dependent variable			
Financial performance	FIR_PER	Financial performance is determined by ROA (the average return on assets).	Thomson Reuters ASSET4 (Datastream)
Independent variable			
Corporate social responsibility practices	CSR_INDEX	It is a score developed by ASSET4 that consists of a series of items that represent the CSR practices of companies.	Thomson Reuters ASSET4 (Datastream)
Moderating variables			
Board size	BOA_SIZE	Number of directors on the board.	Annual report
Board Independence	BOA_IND	Proportion of independent non-executive directors to total number of directors.	Annual report
CEO duality	DUAL	Dummy variable with the value of 1 if the CEO is also the chair, and 0 otherwise.	Annual report
Control variables			
Firm size	FIR_SIZE	The natural logarithm of total assets.	Thomson Reuters ASSET4 (Datastream)
Leverage	LEV	The total debt divided by total assets.	Thomson Reuters ASSET4 (Datastream)

Notes: This table reports the definitions of the variables used in our study.

3.3. Regression Model

To analyze whether corporate governance moderates the relationship between CSR practice and firms’ financial performances, we have applied a regression analysis model as a statistical technique to estimate the proposed models. The following regression models in equations are posited. The variables used in the estimation models are defined in Table 2.

$$FIR_PER_{i,t} = \beta_0 + \beta_1 CSR_INDEX_{i,t} + \beta_2 FIR_SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 year\ fixed\ effect_{i,t} + \beta_5 firm\ fixed\ effect_{i,t} + \epsilon_{i,t} \quad \text{(Model 1)}$$

$$FIR_PER_{i,t} = \beta_0 + \beta_1 CSR_INDEX_{i,t} + \beta_2 BOA_SIZE_{i,t} + \beta_3 CSR_INDEX * BOA_SIZE_{i,t} + \beta_4 LEV_{i,t} + \beta_5 FIR_SIZE_{i,t} + \beta_6 year\ fixed\ effect_{i,t} + \beta_7 firm\ fixed\ effect_{i,t} + \epsilon_{i,t} \quad \text{(Model 2)}$$

$$FIR_PER_{i,t} = \beta_0 + \beta_1 CSR_INDEX_{i,t} + \beta_2 BOA_IND_{i,t} + \beta_3 CSR_INDEX * BOA_IND_{i,t} + \beta_4 FIR_SIZE_{i,t} + \beta_5 LEV_{i,t} + \beta_6 year\ fixed\ effect_{i,t} + \beta_7 firm\ fixed\ effect_{i,t} + \epsilon_{i,t} \quad \text{(Model 3)}$$

$$FIR_PER_{i,t} = \beta_0 + \beta_1 CSR_INDEX_{i,t} + \beta_2 DUAL_{i,t} + \beta_3 CSR_INDEX * DUAL_{i,t} + \beta_4 FIR_SIZE_{i,t} + \beta_5 LEV_{i,t} + \beta_6 year\ fixed\ effect_{i,t} + \beta_7 firm\ fixed\ effect_{i,t} + \epsilon_{i,t} \quad \text{(Model 4)}$$

4. Results and Discussion

4.1. Descriptive Statistics

The descriptive statistics of variables are presented in Table 3. Indeed, the statistical tests show that the companies, the objects of our samples, have a high level of financial performance; “ROA” mean value is (0.17). This variable displays a standard deviation that is very small compared to the average (0.186), which shows that there is no difference in the financial performance of the companies in our sample. This implies that the financial performance of the firms is strong. The results are consistent with those of Hassan and Bashir (2003), Rosly and Bakar (2003) and Olson and Zoubi (2017).

Table 3. Descriptive statistics.

Variables	Obs.	Mean	SD	Min	Max
Panel A: Descriptive statistics for metric variables					
FIR_PER	1125	0.170	0.186	-0.181	0.712
CSR_INDEX	1125	0.689	0.211	0.194	0.928
BOA_SIZE	1125	8.849	2.754	3	19
BOA_IND	1125	52.864	23.100	0	1
FIR_SIZE	1125	21.855	3.599	2.397	28.305
LEV	1125	0.426	0.315	0.002	0.945
Panel B: Frequencies (%) for binary variable					
Variables	Modality		%		
DUAL	0		4.5		
	1		94.5		

Note: This table reports descriptive statistics. Variable definitions are provided in Table 2.

Table 3 reports that the average CSR practice is 0.689. The minimum and maximum values of the CSR practices are, respectively, equal to “0.194” and “0.928”. This practice is smaller than in developed countries, such as Germany, which has complete CSR practice (Gamerschlag et al. 2011). As can be seen from Table 3, the statistics reveal that the mean value of board size is 8 with a standard deviation of 2.754. This variable varies between 3 and 19 members. We also note that the average proportion of independent directors is 52.864%.

Another result to highlight in Table 3 is that the mean percentage of CEO duality is 94.5%, which means that 94.5 percent of firms combine the position of the chairman of the board of directors and the CEO. Further, the mean value of firm size is 21.855. Its minimum and maximum values are equal to 2.397 and 28.305, respectively. On the other hand, it is also important to mention that firm leverage is about 42.6% on average.

4.2. Correlation Matrix and VIF Values

Table 4 presents the correlation matrix. The Pearson coefficients were computed to examine the associations between the independent variables. The matrix of Pearson correlation fails to detect a correlation value equal to or greater than 0.8 (Damodar and Porter 2004). The tabulated results of the Pearson correlation matrix suggest that in this analysis, there is no multicollinearity problem as the interaction between the variables is below 0.80. All board characteristics' variables are significantly positively correlated.

Table 4. Correlation matrix and VIF values.

Variables	1	2	3	4	8	9
(1) CSR_INDEX	1.000					
(2) BOA_SIZE	0.135 ***	1.000				
(3) BOA_IND	0.285	0.140 ***	1.000 ***			
(4) DUAL	0.271 ***	0.313 **	0.216 **	1.000		
(5) LEV	0.130 **	0.255 *	0.043 **	0.044 **	1.000	
(6) FIR-SIZE	0.082	0.255	0.077 *	0.181 *	−0.102	1.000
VIF	3.64	7.19	3.47	6.19	1.24	1.23

Notes: Variable definitions are provided in Table 2. The asterisks ***, **, * indicate significance at the 1%; 5%; and 10 % levels, respectively.

As can be seen in Table 4, the intercorrelations for all the explanatory variables have been examined by applying the variance inflation factors (VIF) analysis, which revealed no sign of multicollinearity. The highest reported VIF value is 7.19 for the BOA_SIZE variable, and the lowest is 0.38 for firm size. When a VIF value exceeds 10, it indicates a potential multicollinearity problem. These findings are deemed statistically appropriate, demonstrating that there is no multicollinearity.

4.3. Regression-Analyses

The regression of financial performance as a dependent variable is depicted in Table 5. This table summarizes the results of the estimating model (1) to test our H1. As can be seen in the table, the decision to adopt a CS practice leads to a high level of financial performance. The first model also indicates that CSR practices lead to higher financial performance. As per Fisher's (F) statistics, equal to 5.41, this model is significant at a threshold lower than 1%. The *p*-value of the *t*-statistic of each coefficient is shown in italics. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The empirical results prove to reveal that 38.9% of the variation in the financial performance can be explained by the CSR practices. Table 5 presents the results of estimating Model 2, 3, and 4 to test our; Hypothesis 2, Hypothesis 2a, Hypothesis 3, Hypothesis 3a and Hypothesis 4a. To define the role of "board characteristic", the regression of financial performance "FIR_PER" as a dependent variable is depicted in Table 5. Our findings highlight a positive and significant relationship between a board characteristic and its financial performance, confirming the research hypothesis. With respect to the control variables introduced in our models, the results show that all the variables are statistically significant in the explanation of the studied phenomenon. The attained empirical findings appear to strongly support our advanced hypotheses.

Table 5. Regression results.

	Model 1	Model 2	Model 3	Model 4
Intercept	0.434 (1.31)	0.340 (0.000) ***	0.695 (0.000) ***	0.570 (0.000) ***
CSR_INDEX	0.286 (5.53) ***	0.003 (2.60) **	0.019 (2.23) **	0.047 (3.816) ***
BOA_SIZE	-	0.001 (2.20) **	-	-
BOA_IND	-	-	0.004 (1.97) **	-
DUAL	-	-	-	-0.458 (-2.02) **
CSR_INDEX * BOA_SIZE	-	0.046 (3.76) ***	-	-
CSR_INDEX * BOA_IND	-	-	0.004 (1.98) **	-
CSR_INDEX * DUAL	-	-	-	-0.733 (-2.46) **
LEV	-0.030 (-0.37)	0.094 (0.042) **	0.130 (0.001) ***	0.031 (0.669)
FIR_SIZE	-0.017 (-1.76)	0.055 (0.681)	-0.017 (-0.233)	-0.095 (-0.655)
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
R²	0.389	0.509	0.332	0.365
F-statistic	5.41 **	6.73 **	5.26 **	5.60 **

Notes: Variable definitions are provided in Table 2. ***, ** significance at $p < 0.01$ and $p < 0.05$, respectively.

5. Discussion of Findings

Table 5 depicts the results of the panel data with fixed effect regression estimates with observations from all five years. The direct relationship between CSR practices and financial performance is provided in Model (1). The results of the regression presented in Table 5 show that CSR practice has a significant effect on financial performance. Therefore, our results confirm those found by other authors (Chouaibi and Chouaibi 2021). This result supports various studies that also resulted in confirming the existence of a positive and significant association between financial performance and CSR practice. The theory of stakeholders confirms our findings that there is an incentive by CSR for close relationships. On the other hand, the evidence is in line with the signal theory, indicating that corporate social responsibility practices are associated with financial performance. The findings are consistent with the results of (Iqbal et al. 2013; Bagh et al. 2017; Ofori et al. 2014; Jie and Hasan 2016; Kiran et al. 2015; Murtaza et al. 2014). Thus, to increase their financial performances, companies have more capital available to invest in areas of social performance, such as employee relations, environmental issues, or partnerships with the community. Consequently, it requires the ethical business processes to be redefined by developing the new strategy of ESG companies. On the other hand, when looking at control variables, Model 1 often shows some essential relations. Statistical results show that our control variables have no significant effect on financial performance. The results indicate that firm size and leverage are not associated with the firm's financial performance.

The results support Hypotheses 2 and 2a (H2 and H2a) (Model 2) and show a positive and significant relationship between the total number of directors on the board and the financial performance, and also show that the link between CSR practices and financial performance will be positively moderated by board size. Firstly, ESG firms should appoint larger boards of directors able to perform better monitoring and support the development of financial performance. Secondly, the evidence suggests that when board size is larger, the effect of CSR on financial performance is positive and significant, while when board size is smaller, the effect of CSR on financial performance is non-significant. Therefore, we suggest that a positive effect exists between board size and CSR index, which in turn generates improvement in a firm's financial performance. These results are consistent with earlier results by (Juras and Hinson 2008; Belkhir 2009; Achdi and Ameer 2011), who have shown that "increased levels of disclosure of corporate social responsibility with the advantage of having a board of directors in which individuals are responsible, fulfilling

their duty in the best possible way can increase the value of the company and therefore improve the financial performance of companies". Thus, the size of the board has an impact on the level of control and oversight. The benefit of having a larger board can increase the value of the company, as they provide a company with members from different areas of expertise. Additionally, large boards can play an important role in oversight and strategic decision-making, suggesting that large boards are less likely to be controlled by management. Indeed, large boards of directors lead to an increase in the diversity of expertise within the board, including expertise in financial reporting. The advantage of having a larger board is that it will improve the value of a business because it provides a company with representatives from various areas of expertise (Khan and Porzio 2010). This result suggests that organizations with a higher board size participate in CSR activities to a greater degree.

Hypotheses 3 and 3a (H3 and H3a) (Model 3) asserts that board independence is positively and significantly associated with financial performance in ESG companies. In the same vein, the findings of the study indicate that the link between CSR practices and financial performance is positively moderated by board independence. Accordingly, the positive fit between board independence and CSR drives financial performance increase. This allows us to confirm the second Hypothesis 3a (H3a). This finding agrees with that of Chen and Jaggi (2000); Xiao and Yuan (2007), and Donnelly and MulcAhy (2008), who argue that "independent directors can be encouraged to commit to better quality CSR reporting in order to legitimize the operation of the company and to increase the financial performance". The proportion of independent directors is positively associated with the board's ability to make a disclosure decision of the CSR information. In addition, voluntary CSR practice increases with the number of independent directors. For this, the independence of the board is a key determining quantity, which implies that the presence of independent directors on the board would influence the decision of management and encourage the firm to disclose more socially responsible activities. With continuous oversight from independent directors, the company would likely favor acquiring a better public image while managing its financial activities. In the same vein, Slawinski and Bansal (2012) argued that independent directors control the success of the board but are much more concerned with stakeholder perceptions. Independent directors will also affect the company's financial results positively.

The findings also verify Hypotheses 4 and 4a (H4 and H4a) (Model 4), showing that the separation of functions of the CEO and the chairman of the board of directors is likely to be a significant determinant of financial performance. Consequently, this separation helps reduce conflicts of interest. The findings of the study indicate that the relationship between CSR practices and financial performance is negatively moderated by CEO duality. A significant negative coefficient is found for CEO duality (DUAL), suggesting that CEO duality constraints CSR practice. Thus, the separation of roles may help boards to exercise their oversight functions more effectively. This outcome is consistent with previous studies (Xiao and Yuan 2007; Hashim and Devi 2008; Tuggle et al. 2010; Ramdani and Witteloostuijn 2010; Vitolla et al. 2020), indicating that to improve the consistency of monitoring and CSR practice, these two functions should be separated. Therefore, the suggestion that separation of the chair and the CEO positions can increase the consistency of monitoring and improve benefits by not hiding details, such as CSR reporting, can be discounted based on our findings. Thus, to increase CSR practice and financial performance, it is necessary to separate the functions of the CEO and the chairman board. This result disagrees with those of Meniaoui et al. (2016) and Vitolla et al. (2020), who suggested that companies with the same person in both executive and chairman positions better perform and report on social responsibility and sustainability. In terms of the information disclosed, several studies have addressed the impact of the separation of roles on information quality. Thus, in line with the contributions related to agency theory, this last result is in agreement with those of Ward and Forker (2017), who found that the separation of roles can increase control and reduce the likelihood of withholding information.

6. Conclusions

The goal of this study is to investigate the moderating effect of board characteristics on the relationship between CSR practices and financial performance in the ESG Company. For a more reliable estimate of the quality of the results, measures proposed by ASSET4 and annual reports were used. The study took steps in bridging the research gap by investigating theoretically and empirically the moderating role of board characteristics in the logically plausible link between CSR practices and financial performance. Our results confirm the expectations regarding the effect of some board characteristics on the link between CSR practices and financial performance. The findings from this study have indicated a positive effect between CSR practice and the firms' financial performance. Higher financial performance is experienced by firms that are more involved in CSR operations. Therefore, for investors, CSR practices may trigger extra certainty that positively affects their valuation of the business. Thus, there is a possibility that CSR practices themselves will reduce market performance issues, which will lead investors to raise their valuation.

Note that this article is a pioneer in assessing the relationship between CSR practices and financial performance. We also deepened the importance of the moderating effect of board characteristics in this relationship. The results show its usefulness for decision-making and its efficiency in providing information for investors and stakeholders. Thus, the interaction between CSR practices and board characteristics is a key instrument used to inform stakeholders about corporate social responsibility and sustainability issues. Corporate governance is characterized as a firm's decision-making body that is responsible for defining strategic priorities and objectives in various areas, including financial results that could affect the company's performance. The board of directors is a tool that investors perceive with increasing attention. Consequently, from a conceptual point of view, the research stimulates reflections on the potential implications of different board characteristics on the interaction between corporate social responsibility and financial performance. Furthermore, this study broadens the field of the determinants of financial performance and firm valuation.

A series of managerial implications are to be drawn from the empirical outcome of this analysis. This paper enables the user of information to better assess the future growth opportunities in a context where the approach of corporate governance and board characteristics occupies a central position in business valuation. This work serves in promoting the interaction between board characteristics and sustainable practices. The results of this paper have implications and additional motivations for practitioners, particularly for CEO and high-level corporate governance bodies. Companies are thus encouraged to redesign the board of directors in a way that favors ethical behavior, including CSR practices. Findings from this paper provide implications for global regulators and policymakers. Our research offers the information user a vision to better assess the financial performance of the company and its future growth opportunities in a context where corporate social responsibility and corporate governance occupy a central position in business valuation.

Concluding, this paper has a few limitations. Firstly, this study overlooked the differences between countries with regard to their CSR practices and their systems of corporate governance. Secondly, this study focuses solely on a European sample, as most of the ASSET4 data were consistently available only for European firms. Consequently, future research could attempt to address both issues and limitations. Future studies can first increase the sample and repeat the study taking into account the differences between countries with consideration to CSR practices and its systems of corporate governance. In addition, in the future, it is possible to examine other factors affecting the relationship between CSR practices and financial performance and obtain data from other third-party platforms.

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