sustainability

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The Impact of Country Characteristics on Board Gender Diversity and Sustainability Performance: A Global Perspective

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Abstract: This study assesses the role of country characteristics on the association between board gender diversity and sustainability performance. It evaluates the significance and relevance of country characteristics in capturing the contextual sensitivity of the relationship between board gender diversity and sustainability performance. Using a sample of 5087 firms from 50 countries, the study establishes that the presence of females on corporate boards enhances sustainability performance. However, the strength of this relationship is contingent on the characteristics of the country within which a firm operates. Specifically, the positive relationship between board gender diversity and sustainability performance is more pronounced in countries with higher cultural orientations on individualism, uncertainty avoidance, indulgence, and femininity. More substantial financial development, an application of civil law and legal systems and weaker economic conditions in a country also facilitate female directors in enhancing sustainability performance. The study provides deeper insights into how country factors interact with gender on the board factor in leading the sustainability performance of firms.

Keywords: board gender diversity; sustainability performance; country characteristics

Citation: Trireksani, T.; Djajadikerta, H.G.; Kamran, M.; Butt, P. The Impact of Country Characteristics on Board Gender Diversity and Sustainability Performance: A Global Perspective. *Sustainability* **2024**, *16*, 3057. https://doi.org/10.3390/su16073057

Academic Editor: Susan Paulson

Received: 21 February 2024
Revised: 3 April 2024
Accepted: 3 April 2024
Published: 6 April 2024

1. Introduction

In recent years, sustainability performance (SP) has gained considerable attention [1,2]. The twenty-first century marks the departure of the corporate orientation from being shareholder-centric to stakeholder-centric, where businesses have started taking sustainability more seriously [3]. The firms which used to be concerned about maximizing the shareholders' wealth in the past now acknowledge their responsibilities toward a wider set of stakeholders [4,5]. Sustainability disclosures serve as a vital instrument with which to discharge these responsibilities and communicate sustainability performance to the stakeholders [6,7].

As the strategic decisions in a firm are made by the board of directors (BOD), fulfilling these extended sustainability responsibilities ultimately depends on the board's characteristics [8] Moreover, the voluntary nature of these responsibilities in most countries further enhances their reliance on the board's discretion. Among the various board characteristics, board gender diversity (BGD), in particular, is attracting the attention of researchers and corporate management nowadays [9]. This is why BDG is considered a dominant and rapidly prevailing global prodigy [10], which is on the agenda of policymakers worldwide [11,12].

This growing cognizance of stakeholder concerns, the extended control and responsibility of board members towards sustainability, and the global prevalence of BGD inspired many researchers to study the BGD–SP relationship. However, despite the plethora of studies, the results are still inconclusive [13]. A critical review of previous studies on

the BGD–SP relationship indicates that the majority of those studies overlooked the country-level determinants of sustainability and exclusively focused on the firm-level factors. These indecisive findings on the BGD–SP relationship and the cross-country variation in SP could be due to the diverse country characteristics under which firms operate, such as the legal system, cultural values, and macroeconomic stability [14].

Motivated by the inconclusive findings on the BGD–SP relationship, this paper addresses the need for more research on the significance and relevance of country characteristics in capturing the contextual sensitivity of the BGD–SP relationship [9,15–18]. To offer an inclusive analysis beyond the narrow and preconceived determinants of sustainability at the firm level, this study examines the relationship between BGD and SP using a diverse international sample. It explores how country characteristics influence the established relationship between BGD and SP.

Based on the disclosure rating of 5087 firms from 50 countries, this study supports the arguments of the stakeholder theory and the resource dependence theory by demonstrating that the inclusion of females on corporate boards enhances SP. Moreover, it finds that country characteristics (i.e., national culture, economic condition, financial development, and legal origin) significantly influence the stakeholders' demand for corporate sustainability reporting. Due to the stakeholders' varying demands for SP across different countries, female directors tailor their responses to SP accordingly. These findings align with the political economy theory, which suggests that SP is a result of reporting pressure from actors within a particular political economy.

The paper makes several contributions. Firstly, it theoretically extends the existing literature on corporate governance by advancing the debate on its interaction with contextual factors in predicting SP. Secondly, it provides empirical evidence that a higher representation of female directors enables firms to respond to stakeholders' needs through SP. It then identifies various institutional factors that may either weaken or strengthen their influence on SP. Thirdly, from a practical perspective, it offers policy implications for management by providing in-depth insights into the significance of board gender diversity in promoting SP, supported by paradigmatic evidence from a diversified institutional environment.

The remainder of the paper is structured as follows: Section 2 provides the literature review and hypothesis development. This is followed by Section 3, which details the research design and methodology, including information on the population and sample size, the measurement of variables, the data collection method, and the estimation approach used to test the research hypotheses. Section 4 discusses the empirical results, while Section 5 presents the results of several robustness tests. Section 6 concludes the study, followed by a discussion on practical implications and possible areas of future research in Section 7.

2. Literature Review and Hypotheses Development

2.1. Board Gender Diversity and Sustainability Performance

How the presence of females on corporate boards affects sustainability performance is still an under-researched area, demanding more serious attention from researchers [17,19]. The resource dependence theory asserts that firms depend on outsiders to procure indispensable resources for their operations [20]. To access these scarce resources, firms fiercely compete with each other [21] by establishing relationships with other entities in the external environment [22]. Although the responsibility to maintain a cordial relationship with external stakeholders primarily falls on the shoulders of the entire board, female directors may fulfill this function more effectively due to their higher relational orientation [23]. To manifest their concern for the external environment and maintain sustainability relationships with its entities, female directors actuate the boards to engage in and report more sustainability activities [24,25]. Hence, a higher relational orientation may

help a firm to procure scarce resources from the external environment by enhancing the firm's activities and reporting on sustainability.

The stakeholder theory asserts that, besides shareholders, a firm is accountable to a broader set of stakeholders and must consider their interests [26]. As the interests of various stakeholders may mismatch with each other, a firm's success depends on its ability to align or balance those conflicting interests. Taking care of stakeholders and aligning their interests is the mutual responsibility of board members. However, two inherent characteristics of females (moral orientation and psychological traits) make female directors more attuned to the stakeholders' interests [27,28]. Moreover, higher education, more relevant professional experience, and democratic leadership styles are some of their acquired characteristics that also enhance their sensitivity to various stakeholders [15,29]. These inherent and acquired characteristics enable female directors to influence the board's decisions by enhancing sustainability performance [19]. Owing to their higher relational orientation in the context of the resource dependence theory and inherent and acquired traits in the context of the stakeholder theory, female directors are expected to enhance the firm's responsiveness to shareholders' concerns and its commitment to SP. Hence, the study hypothesizes the following relationship:

H1. *There is a positive association between the board's gender diversity and sustainability performance.*

2.2. The Role of Country Characteristics

The current literature shows that the political economy theory is the most widely applied theoretical lens to study the relationship between corporate governance (more specifically, BGD) and sustainability in an international setting [27,30]. The 'political economy' is defined as a nexus of economic, social, and political systems within which human life takes place [31]. Different individuals, organizations, and institutions that constitute this political economy interact with each other to preserve their own interests [32]. However, as all the constituent players in the political economy are interlinked, their rights to maintain self-interests are contingent on their relationships with each other. While elaborating on the concept of political economy, [33] argued that the economic issues of firms could not be studied in isolation from the political, social, and institutional factors within which those firms operate. Furthermore, he asserted that this theory extends the contextual framework for researchers to study the disclosure choices of firms.

Building on the political economy perspective, [34] elucidated the concept of the 'social contract', arguing that a firm's survival depends on its acceptance in society. If, at any stage, society withdraws its endorsement, perceiving that the firm is engaging in undesirable social activities, the organization's demise could be inevitable. To avoid such a scenario and communicate the firm's response to societal issues, management is expected to persistently share sustainability information with society. This synchronized behavior of a firm with the external environment is critical for its successful and profitable operations [35].

Another important factor in the political economy framework is the government (intervention), which may jeopardize the self-interests of the organizations. Governments may intervene if they perceive that the activities of a firm may impinge on the overall society or may be socially undesirable for the individuals living there [36]. SP not only pledges society's support for a firm but can also assist in avoiding government intervention to protect the firm's self-interests [37]. As the sustainable performance of a firm emerges in response to pressure from country-specific political economy actors, a firm's level of SP could vary from country to country, depending on the inclination of political economy actors to operate there. To test the applicability of the political economy perspective in the context of the BGD–SP relationship, four country characteristics have been identified from the literature: national culture, economic condition, financial development, and legal origin.

2.2.1. National Culture

National culture can affect a firm's processes by influencing the management's perception, behavior, and decision-making [38]. Hence, it can determine how female directors in a country perceive and respond to SP demands from stakeholders there. This influential role of national culture makes it indispensable when examining the BGD–SP relationship [9,18]. National culture based on the Hofstede measure has multiple dimensions, each of which can have a distinct effect on the BGD–SP relationship, as hypothesized below. The limitation of the Hofstede measure, however, must be noted. It tends to simplify complex cultural differences into a few dimensions and overlook cultures' dynamic and heterogeneous nature. It also tends to generalize national cultures without accounting for other contextual factors and individual variability. Accordingly, the findings in understanding cultural dynamics should be taken within this limitation.

Individualism

Individualism refers to the extent to which individuals in a social framework are integrated into groups. In societies characterized by individualism, people prioritize their interests over common well-being, caring more about themselves and their immediate family members [39]. Owing to their limited sensitivity towards a broader set of stakeholders, individualistic societies are expected to be less demanding on sustainability activities and disclosures [14,40,41]. This gives the impression that firms in individualistic societies could be less prone to SP [42–44].

However, collectivist societies are characterized by solid cohesiveness among their members. Consequently, individuals in such societies not only protect each other but also share each other's responsibilities, which suppresses the influence and importance of their personal rights [45]. This deficiency in recognizing their personal rights derives a less empowered and ethically insensitive society to critically monitor the corporate behavior [46]. It implies that female directors in collectivist societies can be more relaxed even if the firm performs fewer sustainability activities.

Additionally, the higher endorsement of personal initiatives in individualistic societies makes their individuals more puissant to address environmental and social dilemmas [47]. Consequently, board members, especially female directors operating in countries with higher individualism, are expected to feel more confident, autonomous, and empowered to perform and share their sustainability strategies and activities. Researchers [48–50] also support this viewpoint, arguing that attending to stakeholders' interests and implementing sustainability strategies could be more convenient in countries with higher levels of individualism. The discussion above leads to the following hypothesis:

H2a. *Board gender diversity is more positively associated with sustainability performance in countries with a higher level of individualism.*

Uncertainty Avoidance

Uncertainty avoidance refers to the willingness of a society to tolerate uncertainties and accept ambiguous situations. Individuals in societies with higher levels of uncertainty avoidance tend to exhibit a disinclination towards unstructured situations. To mitigate or avoid such uncertainties, countries with a higher orientation towards uncertainty avoidance implement various laws, regulations, controls, and rules ([39]. As this dimension of national culture directly influences the proactive behavior of individuals, particularly those in corporate policymaking roles, it can aid in understanding the board's decisions regarding SP. Since the potential benefits associated with SP are often viewed as uncertain, management may perceive that the costs of SP could outweigh its uncertain future profits [51]. Hence, board members in countries with higher uncertainty avoidance can limit a firm's sustainability activities [40].

However, from an ecological perspective, the impact of the corporate sector on the environment and society at large, such as an increase in pollution levels, may present unknown environmental challenges. Given the uncertainty surrounding this environmental degradation, it could be a cause for concern for management and other stakeholders operating in those areas [52]. To avoid such uncertainties, policymakers in firms are expected to implement various policies and systems to sustain society and minimize the adverse corporate effect [53]. It suggests that board members in countries with higher uncertainty avoidance will be more cautious about performing their sustainability activities.

Besides the self-awareness of corporate boards, governments and non-governmental organizations (NGOs) in such countries would likely be more skeptical about ensuring that corporate activities today do not pose unknown threats to society in the future. Consequently, they are expected to exert greater pressure on corporate boards to operate with social and environmental responsibility. This suggests that female directors in countries with higher levels of uncertainty avoidance are expected to be more vigilant in caring for society and disclosing relevant information to all stakeholders. A recent study [54] also supports this viewpoint by empirically evidencing that uncertainty avoidance in a country may induce the firms operating there to engage more in sustainability and its related aspects. Hence, the study proposes the following hypothesis:

H2b. *Board gender diversity is more positively associated with sustainability performance in countries with higher uncertainty avoidance.*

Indulgence

Indulgence indicates the extent of leverage a society permits its individuals to gratify their basic and natural human drives in order to have fun and enjoy their personal life. Indulgent societies promote an environment of freedom and self-control (Hofstede et al., 2010). Such societies are considered more extravagant and relatively assign more value to leisure, whereas, in constrained societies, impulses and desires are mostly curbed or regulated by strict social norms [55].

This dimension of national culture was initially proposed in 2010, so relatively few works of research has been carried out using this construct. Its possible intervening role in defining the corporate response towards sustainability is still under-researched, and the findings are mostly indecisive and limited. Some researchers [45,46,56] are of the opinion that the extravagant lifestyle of people in countries with an indulgent outlook could be associated with the wasteful employment of money, resulting in environmental pollution. However, in the context of the BGD–SP relationship, the literature supports the opposing argument in two ways: Firstly, it empirically confirms that an indulgent lifestyle could be a significant driving force behind the prosocial behavior of individuals, which steers them towards charity-giving, volunteering, and helping each other [57]. Therefore, female directors with indulgent mindsets may demonstrate greater prosocial behavior towards society's betterment compared to their counterparts in more restrained societies. Secondly, the literature suggests that a minimum representation of female directors on corporate boards could be crucial to elicit any positive impact on SP; otherwise, their voices may go unheard [9,58]. As freedom of speech and emotional expressions are more encouraged in countries with higher indulgence [59], female directors operating there would be more authoritative in driving a firm for higher SP. Based on these arguments, the following hypothesis is proposed:

H2c. *Board gender diversity is more positively associated with sustainability performance in countries with higher indulgence.*

Masculinity

Masculinity–femininity indicates the degree to which individuals in a society prioritize traits such as heroism, assertiveness, achievement, and material rewards for success

(masculine) as opposed to nurturance, modesty, co-operation, caring for the weak, and quality of life (feminine) [39]. Owing to their preference for quality of life and co-operation versus material rewards, feminist societies demand more corporate involvement for the well-being of society [60]. Due to this elevated pressure from stakeholders, firms engage in more sustainable initiatives in countries with higher femininity [45,61,62]. This difference in demand for SP between feminist and masculine countries prompts board members to address the needs of stakeholders accordingly. Therefore, it is assumed that female directors operating in feminist countries would be more motivated to enhance sustainability activities. To test this viewpoint, the following hypothesis is proposed:

H2d. *Board gender diversity is less positively associated with sustainability performance in countries with a higher level of masculinity.*

2.3. Economic Condition

The cross-country variation in sustainability performance could be associated with various country-level, industry-level, and firm-level determinants, among which economic condition is considered one of the most influential ones [17,63,64]. Acknowledging its likely impact on the decision of board members, and particularly by female directors, previous studies [65–68] suggested taking into account this country characteristic while studying the BGD–SP relationship. Some researchers [50,69–71] believe that stakeholders in economically sound countries demand more involvement in SP. It suggests that female directors would be more influential in economically developed countries to furnish SP.

However, the weak economic condition can also turn into a motivational catalyst for female directors to engage in sustainability activities. A recent study [72] found that firms in developing countries exhibit higher levels of SP. This inverse relationship can be better understood through the concepts of 'governance gap' and 'gender gap'. In countries with weak economic conditions, many governments are corrupt, weak, and under-resourced. Their weak institutions and inefficiency create 'governance gaps' in such countries. This governance gap delegates various social responsibilities, like electricity, housing, education, roads, healthcare, etc., to the corporate sector [73,74]. Hence, female directors in such firms are expected to be more motivated and compelled to engage in sustainability activities in a society where the firm shares the government's responsibilities.

As discussed previously, the positive relationship between BGD and SP is established on the notion that females have some attributes (both inherent and acquired) that are distinct from males. As these traits are more society-friendly, stakeholders not only acknowledge them but also respond to them differently. This distinction in the behavior or traits of both genders (females versus males) is a part of the 'gender gap', forming the basis for building a positive relationship between BGD and SP. However, this 'gender gap' is more pronounced in developing countries and starts to diminish as we proceed towards developed countries [75]. It implies that the distinct attributes of female directors that encourage firms to engage in sustainability will be more pronounced and effective in developing countries than in developed countries. In conformity with the discussion on 'governance gap' and 'gender gap', the study proposes the following hypothesis:

H3. *Board gender diversity is less positively associated with sustainability performance in developed countries than in developing countries.*

2.4. Financial Development

Differences in the level of sustainability performance between countries could also be explained by variations in the degree of their financial development, particularly in terms of stock market size. The stock market is regarded as the primary source of funds for the corporate sector, which is why every firm endeavors to perform well on the stock exchange and in the eyes of investors. Empirical studies confirm that sustainability performance is one of the factors investors consider when valuing a stock in equity markets

[76]. Hence, board members engage and report their sustainability activities to keep the investors informed on the firm's non-financial or societal activities.

However, depending on the size of the market, the demands for SP from both potential and existing investors vary [77]. In countries with higher financial development (stock market size is larger), firms are under more pressure to perform and report their sustainability activities and reduce potential information asymmetries [63]. Moreover, more extensive stock exchanges exhibit higher competition for the firms to obtain scare investment capital. Hence, firms in such markets are expected to furnish more SP [71,78]. To sustain their market standing, female directors (besides other directors) will be more bound to engage in sustainability activities in countries with higher financial development. The study hypothesizes the following relationship:

H4. *Board gender diversity is more positively associated with sustainability performance in countries with higher financial development.*

2.5. Legal System

The legal system and its enforcement in a country are other factors that can explain variations in the demand for sustainability performance by various stakeholders [79]. Depending upon its effectiveness, the legal system has the ability to strengthen or deteriorate the corporate sector's commitment to society's well-being [63]. It encompasses existing rules, regulations, and laws in a particular national environment that permit certain behaviors and restrict others [80]. As these rules and laws may also define the stakeholder orientation of the individuals and entities operating there [81], female directors in different legal systems are expected to hold different orientations for stakeholders and behave differently to their demands. While investigating the role of BGD on SP, [67] also acknowledged that legal origin could be an influential factor that deserves consideration in cross-country studies with different legal systems.

The literature shows that civil law countries (versus common law countries) are more stakeholder-orientated [82–84]. While comparing the features of both legal systems, [61] stated that common law countries offer better protection to shareholders and have more developed property rights. In contrast, civil law countries have more established laws on stakeholder protection and employee rights. Consequently, firms in countries with civil laws will be more compelled by stakeholders to engage in and report sustainability-related activities [85]. To sustain their legitimacy and the social contract in light of the political economy theory, board members will be more obliged to engage in sustainability activities in civil law countries. The following hypothesis is accordingly proposed:

H5. *Board gender diversity is more positively associated with sustainability performance in civil law countries than in common law countries.*

3. Research Design and Methodology

To elucidate the question of how the relationship between BGD and SP holds in various countries with dissimilar characteristics, it was a prerequisite to have a well-diversified portfolio of countries with substantial differences in their attributes. Selecting a particular geographical region could not furnish the desired diversity. Hence, every public firm listed on any stock exchange in any country at the end of 2017 was selected if Bloomberg rated it on its environmental, social, and governance (ESG) performance. The year 2017 was chosen as the study period to ensure that sustainability data were not influenced by the US–China trade war in 2018, which has had trade implications for the overall global economy, including both developed and developing countries [86], and the potential subsequent additional global effect of COVID-19 [87,88].

Using Bloomberg's equity screening function, 6823 firms were selected per the above criteria. This initial sample also included 527 firms from the financial industry and 20 with no information on their business sector. Additionally, data on country characteristics and

firm-level variables for 661 and 528 firms were missing. This study excluded all these firms and came up with a final sample of 5087 firms from 50 countries and 10 business sectors based on Bloomberg Industry Classification Systems (BICS), which was finally analyzed. Tables 1 and 2 classify this final sample based on its country and business sector.

Table 1. Composition of the data sample with respect to the country of operation.

Country	No. of Firms	Country	No. of Firms	Country	No. of Firms
Argentina	7	Australia	239	Austria	14
Bangladesh	1	Belgium	12	Brazil	40
Canada	99	Chile	14	China	821
Colombia	3	Egypt	2	France	67
Germany	62	Greece	10	Hong Kong	78
Hungary	1	India	540	Indonesia	41
Ireland	10	Israel	15	Japan	1635
Jordan	4	Lebanon	1	Luxembourg	8
Malaysia	46	Malta	1	Mexico	33
Morocco	1	Netherlands	24	New Zealand	21
Nigeria	21	Norway	39	Peru	6
Philippines	30	Poland	8	Portugal	3
Russia	29	Saudi Arabia	15	Singapore	40
Slovenia	3	South Africa	72	South Korea	24
Spain	12	Sri Lanka	9	Switzerland	33
Thailand	31	Turkey	26	UAE	17
USA	814	Vietnam	5		

Table 2. Composition of the data sample with respect to the business sector.

Business Sector	No. of Firms	Business Sector	No. of Firms
Telecommunication Services	70	Materials	792
Industrials	1172	Healthcare	379
Information Technology	633	Energy	246
Consumer Staples	417	Consumer Discretionary	922
Real Estate	298	Utilities	158

Like the country's representation, business sectors also exhibit diversity in their contribution to the final sample. This disparity is in line with previous studies [45,89] who have also reported similar results. Moreover, this diversity is not expected to affect the results as Bloomberg's ESG information is industry-adjusted. This adjustment makes sense as there could be some information (like carbon dioxide emission per unit of sale) that is critical in assessing the environmental efficiency of the "utilities" sector but could be irrelevant or less important for the "healthcare" or "information technology" sectors. This industry adjustment in Bloomberg's ESG ratings ensures that data are comparable among different business sectors.

3.1. Measurement of Variables

3.1.1. Independent Variables

The measurement of sustainability performance has been shifting from content analysis by counting the number of related words, sentences, or pages in the corporate reports or constructing an index or checklist to match the firm's disclosures on specific items of interest [90], towards the use of third-party sustainability ratings, which are now more widely used by corporate, financial, and academic sectors [91]. Although there are several third-party ratings available, an increase of 682 percent in the use of Bloomberg's ESG

information from the year 2009 to 2015 indicates its supremacy among others [92]. After collecting and analyzing data on 900 different data points, Bloomberg employs a highly comprehensive methodology in assigning an overall ESG score to each rated firm. The value of the Bloomberg ESG score ranges from 0.1 to 100 for the level of a firm's sustainability performance. In light of previous studies [93–95], this study used the Bloomberg ESG score as the proxy for SP.

3.1.2. Dependent Variable

The study followed [10] and employed the 'percentage of female directors on a board' as the proxy for BGD.

3.1.3. Moderating Variables

National culture has been measured differently in literature. One of the indices that has been traditionally used, despite its limitations discussed previously, is the Hofstede cultural index [45,46,48]. The study proxied national culture based on four dimensions of the Hofstede cultural index, i.e., individualism (INDV), masculinity (MAS), uncertainty avoidance (UA), and indulgence (INDL). Two dimensions of Hofstede cultural index (power distance and long-term orientation) have been excluded from this study due to their very high multicollinearity with other predictors in the model. Power distance had correlation greater than 0.8 with individualism and economic condition. Similarly, long-term orientation showed more than 0.8 correlation with the legal origin. However, power distance and long-term orientation (along with other four dimensions) were added in the model as a robustness test later on. Value for each dimension of national culture ranges from 0 to 100, where 0 indicates the lowest, whereas 100 exhibits the maximum cultural orientation towards a particular dimension. To proxy economic condition (ECO) and financial development (FDV) in a country, gross domestic product (GDP) per capita [46,67] and stock market capitalization in a country were employed, respectively [96]. This study did not divide stock market capitalization by GDP because GDP per capita has also been incorporated separately as a country characteristic, i.e., economic condition. Legal origin (LO) is a dummy variable, where 0 indicates the common law, and 1 represents the civil law legal system. Please refer to Appendix A for further information.

3.2. Control Variables

The study controls several firm-specific determinants of SP, which could influence the findings of this study. Firm profitability is an essential factor that can determine the level of SP [97]. Higher profitability means more capacity to invest in and report sustainability, so profitability is expected to enhance SP [98]. Firms with fewer internal resources or more leverage may consider SP costly [99]. It suggests a negative relationship between leverage and SP [89]. Similarly, more mature and established firms usually enjoy more certain cash flows owing to their stable operations. Hence, older firms are expected to exhibit higher levels of SP [100]. Larger firms, owing to their scale of operations, usually get more attention from the general public. As a result, society demands that their contribution towards society should be commensurate with their size [101]. Hence, there could be a positive relationship between firm size and SP [102].

Following [103], return on equity and the natural logarithm of total assets were employed to proxy firm profitability and firm size, respectively. The firm's age was calculated by estimating the number of years since its inception [104]. Lastly, the debt-to-equity ratio served as the proxy for leverage [105].

3.3. Data Collection

Bloomberg database was used to collect the data on independent, dependent, and control variables. To determine the type of legal system in a country, the World Factbook from the official website of the Central Intelligence Agency (https://www.cia.gov/the-

world-factbook/field/legal-system/ (accessed on 30 April 2023)) was employed. Hofstede's official website was used to gather country-level data on national culture. The data on stock market capitalization were obtained from the official website of the World Bank (https://data.worldbank.org/indicator/CM.MKT.LCAP.CD?view=chart (accessed on 30 April 2023)).

3.4. Data Analysis

All the predictors were standardized before the statistical analysis. Table 3 reports the descriptive statistics before the standardization.

Table 3. Descriptive statistics.

Variable	Minimum	Maximum	Mean	Std. Deviation
Sustainability performance (SP)	2.066	78.099	20.981	12.250
Board gender diversity (BGD)	0.000	66.667	10.661	12.184
Legal origin	0.000	1.000	0.590	0.491
Economic condition	1516.513	104,103.037	32,388.145	21,205.851
Financial development	9.904	1274.132	134.877	150.213
Individualism	13.000	91.000	51.620	24.509
Masculinity	8.000	95.000	70.160	19.096
Uncertainty avoidance	8.000	100.000	60.540	25.518
Indulgence	0.000	97.000	44.520	17.913
Firm age	0.000	270.000	38.227	27.919
Leverage	0.000	83,940.000	109.701	1280.221
Firm size	3.077	11.533	8.796	0.854
Profitability	−1339.632	697.149	5.509	37.573

These statistics show that SP has an extensive range of 76 in the final sample. This large diversity in the SP score is due to the global nature of the data, encompassing 50 countries, including both developed and developing countries. The independent variable (BGD) also exhibits large variation. Few firms do not have even a single female director on their board (minimum = 0), whereas some have more than 2/3 of the board comprising females (maximum = 66.67). On average, female directors make up 11% (approx) of total board members, consistent with the previous study with an international sample of 39 countries [106].

The mean value for legal origin is more than 0.5. This indicates that the sample has a comparatively higher number of firms operating under civil law than those operating under the common law legal system. Economic conditions, financial development, and all the dimensions of national culture (individualism, masculinity, uncertainty avoidance, and indulgence) show large dispersion and confirm the presence of disparity in the country's characteristics. This variation in the country's characteristics is imperative for this study, without which it would not have been possible to examine how varying country characteristics modify the established relationship between BGD and SP.

3.5. Model Estimation

This study employed Hierarchical Multiple Regression (HMR), also known as sequential or block-wise regression, to test the research hypotheses. HMR is a variant of multiple regression where researchers have better control over the regression steps. It makes it very convenient for researchers to test the effects of specific predictors (under consideration) while controlling the other variables [107]. Unlike stepwise regression, where the software algorithm determines the order to enter the variables in the regression, HMR enables the researchers to decide the sequence of predictors based on theory and

extant research. Owing to their control over the sequence of entering predictors, researchers can examine how each new predictor contributes to explaining the variance in the criterion [108]. As this estimation technique is known to provide unambiguous inferences, it is widely acknowledged that one should test the moderation effects [109]. If HMR indicates a significant moderation effect, it can safely be regarded as a genuine moderator [110].

Before estimating the regression parameters using HMR, it was ensured that the data satisfied the assumptions of linear regression, i.e., independence of errors, linearity, normality of residuals, and homoscedasticity. Although the absence of multicollinearity and outliers are not an assumption of linear regression, keeping an eye on these is always suggested. Otherwise, they may invalidate the results. Among all the assumptions, independence of errors is only relevant in datasets where observations have any meaningful order [111]. This assumption is irrelevant here because the sequence of observations in this study can be changed in any order [112]. Similarly, the assumption of normality (of residuals) can be relaxed considering this dataset's large number of observations [113]. To confirm that predictors are not strongly correlated with each other and multicollinearity is not present, Variance Inflation Factor (VIF) values and Pearson correlation matrix were estimated. The Pearson correlation matrix (calculated after excluding the power distance and long-term orientation) is reported in Table 4. VIF values for all the variables are given in Table 5, which are within the permitted limits.

Linearity was assured by plotting standardized residuals against each predictor separately. All scatter plots indicated linearity between the predictors and the dependent variable. The assumption of homoscedasticity was tested by plotting the standardized residuals against standardized predictors. Although not ideal, a lack of any clear pattern confirmed that this assumption had been satisfied at least partially, if not completely [114]. The residuals plot also indicated some possible outliers in the datasets, but deleting them could affect the diversity of country characteristics, which was critical to conducting this study. However, to confirm that possible outliers are not influential, Cook's value for the residuals was estimated to be less than 1. Although Cook's value confirmed the absence of influential outliers and the residuals plot shows at least partial homoscedasticity, these two assumptions could still be considered less than ideally met.

To ensure that heteroscedasticity and outlier (even uninfluential) are not significant enough to invalidate the results, the prudent approach could be to employ an additional robust estimation approach to these issues. In this regard, this study employed bias-corrected and accelerated bootstrapping (based on 2000 samples). This technique provides robust estimates even if the data violate the assumptions of linear regression, such as normality of residuals or homoscedasticity [111,115] or indeed has outliers [116]. Hypothesis testing under bootstrapping relies on confidence intervals, which is a more accurate approach to drawing inferences than the p-values provided by traditional techniques [117]. These confidence intervals are less susceptible to misinterpretation and, hence, are regarded as more reliable for hypothesis testing [118,119].

Table 4. Pearson correlation matrix.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. SP	1																			
2. BGD	0.18	1																		
3. INDV	0	0.21	1																	
4. UA	0.13	−0.3	0.02	1																
5. INDL	0.05	0.16	0.78	0.11	1															
6. MAS	−0	−0.4	−0.2	0.67	−0.1	1														
7. ECO	0.06	0.08	0.74	0.27	0.68	0.16	1													
8. FDV	0.09	0.02	0.04	−0.1	−0	−0	0.25	1												
9. LO	0.13	−0.2	−0.6	0.51	−0.4	0.52	−0.2	−0.3	1											
10. BGD × INDV	0.16	0.17	0.22	0.07	0.19	−0.1	0.19	0	−0.1	1										
11. BGD × UA	0.06	−0	0.09	−0.3	−0	−0.4	−0.1	0.01	−0.2	0.2	1									
12. BGD × INDL	0.12	0.1	0.19	0.01	0.15	−0.1	0.15	0.02	−0.1	0.8	0.15	1								
13. BGD × MAS	−0.2	−0.2	−0.1	−0.3	−0.1	−0.1	−0.2	0.03	−0.3	−0.2	0.33	−0.2	1							
14. BGD × ECO	0.08	0.18	0.2	−0.1	0.15	−0.3	0.17	−0	−0.1	0.8	0.23	0.7	−0.2	1						
15. BGD × FDV	−0	−0	0	0.01	0.02	0.03	−0	0.04	−0	0	−0.1	−0.1	0.03	0.16	1					
16. BGD × LO	−0	0.04	−0.1	−0.2	−0.2	−0.3	−0.1	−0	0.01	−0.6	0.39	−0.5	0.11	−0.3	−0.3	1				
17. Firm age	0.21	−0.2	−0.1	0.47	−0	0.43	0.02	−0	0.23	0	−0.2	0	−0.2	−0.1	0.02	−0.2	1			
18. Profitability	0.09	0.05	−0.1	0.06	−0.1	0.04	−0.1	−0	0.09	0.1	−0.1	0.1	−0	0.02	0.01	−0.1	0.07	1		
19. Firm size	0.48	0.14	−0	0.1	0.07	0.04	0.13	0.06	0.16	0.2	−0	0.1	−0.1	0.06	−0	−0.1	0.13	0.26	1	
20. Leverage	−0	−0	0	−0	−0	−0	−0	−0	−0	0	0.03	0	0.03	0.03	0.01	0.03	−0	−0.1	−0.1	1

SP = sustainability performance, BGD = board gender diversity, LO = legal origin, ECO = economic condition, FDV = financial development, INDV = individualism, MAS = masculinity, UA = uncertainty avoidance, INDL = indulgence.

Table 5. Regression results based on HMR and bootstrapping.

	Sustainability Performance (SP)											
	Model 1						Model 2					
	Traditional Approach (HMR)		Robust Approach (Bootstrapping)				Traditional Approach (HMR)		Robust Approach (Bootstrapping)			
Variable	**Beta**	***p*-Value**	**SE**	**VIF**	**LCI**	**UCI**	**Beta**	***p*-Value**	**SE**	**VIF**	**LCI**	**UCI**
(Constant)	21.114	0.000	0.153		20.821	21.420	21.337	0.000	0.192		20.959	21.715
Board gender diversity (BGD)	1.870	0.000	0.180	1.069	1.542	2.216	1.504	0.000	0.204	1.553	1.130	1.909
Individualism (INDV)							1.419	0.000	0.527	7.636	0.349	2.400
Uncertainty avoidance (UA)							1.068	0.000	0.281	2.946	0.504	1.663
Indulgence (INDL)							0.581	0.022	0.335	3.070	−0.056	1.249
Masculinity (MAS)							−1.794	0.000	0.334	2.972	−2.391	−1.172
Economic condition (ECO)							−1.507	0.000	0.370	4.750	−2.191	−0.732
Financial development (FDV)							1.691	0.000	0.241	1.657	1.235	2.129
Legal origin (LO)							2.241	0.000	0.380	4.704	1.514	2.917
BGD × INDV							1.789	0.000	0.537	7.872	0.719	2.866
BGD × UA							1.144	0.000	0.279	2.245	0.578	1.711
BGD × INDL							0.992	0.000	0.350	3.486	0.251	1.792
BGD × MAS							−0.595	0.002	0.222	1.659	−1.035	−0.161
BGD × ECO							−1.586	0.000	0.349	4.132	−2.278	−0.940
BGD × FDV							0.768	0.000	0.239	1.556	0.285	1.311
BGD × LO							1.385	0.000	0.376	3.979	0.630	2.195
Firm age	2.248	0.000	0.178	1.067	1.906	2.602	2.174	0.000	0.209	1.445	1.776	2.588
Profitability	−0.527	0.001	0.151	1.081	−0.882	−0.333	−0.531	0.000	0.151	1.100	−0.848	−0.355
Firm size	5.463	0.000	0.188	1.119	5.106	5.876	5.063	0.000	0.192	1.248	4.677	5.510
Leverage	0.085	0.563	0.301	1.010	−0.685	0.294	0.067	0.636	0.295	1.017	−0.727	0.320
Adjusted R square	0.272						0.325					
ΔR square							0.053					

LCI and UCI are the lower and upper (bootstrap) confidence intervals.

4. Results and Discussion

Table 5 reports the regression results based on both HMR and bootstrapping. Model 1 tests the relationship between BGD and SP. The standardized coefficient (1.870) for BGD indicates that, for two firms that are equal in firm profitability, firm leverage, firm age, and firm size, an increase in 1 standard deviation in BGD is associated with an increase of 1.870 in the SP rating (as SP is unstandardized). This positive relationship is significant based on both HMR (p-value = 0.000) and Bootstrapping (as both CIs 1.542 and 2.216 are positive and do not include zero between them). These results lead to the acceptance of H1 and establish a positive relationship between BGD and SP, consistent with the previous studies' indication [10,15,120]. Among the control variables, firm age and firm size both are positively associated with SP. Surprisingly, firm profitability shows a negative relationship with SP. Leverage has an insignificant association with SP. Results for all the control variables are also consistent on both estimation methods, i.e., HMR and bootstrapping.

These results support the argument that women have some distinct traits that make them more attuned to the welfare of society. Their natural tendency to be helpful, kind, gentle, sympathetic, caring, and compassionate catalyzes their sensitivity towards the stakeholders in society [121]. Knowing the significance of stakeholders for a firm's survival, female directors employ their communal characteristics and build strong ties with them. To convey the firm's responsiveness to stakeholders' demands, female directors engage in SP. By enhancing the level of SP, female directors help a firm sustain its strong relationships with stakeholders and procure scarce resources from the environment.

Model 2 in Table 5 further incorporates all the moderating variables (the four dimensions of national culture, economic condition, financial development, and legal origin) and their interaction effect with BGD. Beta coefficients indicate that all the dimensions have a significant moderating effect. The standardized coefficient of 1.789 for INDV × BGD indicates the estimated difference in SP score between the two firms, which are equal on all other predictors except the difference of 1 standard deviation in BGD and 1 standard deviation in INDV. The positive sign of beta indicates that INDV reinforces the positive association of BGD with SP. Hence, the BGD–SP relationship is more firmly established in individualistic countries than in collectivist countries. Similarly, the beta of 1.144 for UA × BGD and 0.992 for INDL × BGD also confirm their positive and significant moderating role in the BGD–SP relationship. Although INDV, UA, and INDL all have a positive moderating effect, the highest beta for the interaction effect of INDV shows that it has the strongest moderating influence on the BGD–SP relationship. As hypothesized, MAS negatively mediates this relationship (beta = −0.595). Moderating results for all four dimensions of national culture are significant on both estimates' approaches, i.e., HMR and bootstrapping. These results support the hypotheses H2a to H2d. These results confirm that cultural orientation affects how female directors respond to stakeholders through SP. As informal norms, compared to formal institutions, show higher resistance to change [122], female directors have to modify their behavior accordingly. This customized response of female directors to SP supports the application of the political economy theory, which posits that firms are surrounded by various entities with their own demands to preserve their self-interests. Keeping in sight their personal interests, the demands for SP by these entities vary from one political economy or country to another. For example, collectivist societies fail to recognize their personal rights, putting less pressure on the corporate sector to hold itself accountable for its actions.

Conversely, individualistic societies delineate more autonomy and confidence to the individuals, empowering them enough to raise questions about the firm's legitimacy. Similarly, societies with higher uncertainty avoidance prefer to avoid any unknown environmental or social challenges that could be detrimental to society. Hence, they demand more information from the corporate sector to confirm that their activities do not pose any unknown threats. Prosocial behavior in indulgent societies steers them toward charity-

giving, volunteering, and help each other. Hence, they expect similar prosocial behavior from the firms. A nation characterized by a high degree of indulgence grants individuals the freedom to autonomously manage and enjoy their lives. In such a society, citizens are not only empowered to critically evaluate events but also encouraged to express their opinions freely through freedom of speech. Within the corporate environment, this implies that stakeholders in these countries would be more inclined to vocalize their concerns and openly critique corporate actions perceived as unethical. Consequently, board members and management in such cultural contexts would experience heightened pressure to integrate stakeholders' concerns into corporate policies and actively engage in sustainability performance (SP). Lastly, societies with masculine orientations prioritize financial aspects over non-financial or social issues and demand comparatively lower involvement from the corporate sector regarding sustainability. Hence, a firm's SP is contingent on the institutional environment in which it operates [123].

To avoid any institutional voids that could lead to a firm's demise, firms are obliged to address the varying demands of society accordingly. As these demands are driven by their cultural orientation, which differs from one society to another, it is illogical to expect a consistent response to the varying demands for SP from different societies. Being the decision hub, it is the responsibility of board members to customize the corporate policies on SP as per the demands of stakeholders in a country. Keeping in mind the demands for higher SP in countries with more individualism, uncertainty avoidance, indulgence, and feminism (versus masculinity), female directors behave in a more socially responsible manner and assist more vigorously in disclosing sustainability activities in such countries.

The beta of −1.586 for ECO × BGD in model 2 confirms the negative association of economic condition in a country on the BGD–SP relationship. This 1.586 indicates the difference in the SP ratings of the two firms, which differ by 1 standard deviation in BGD and 1 standard deviation in ECO (but are equal to all other predictors). The other two country characteristics, i.e., financial development (beta = 0.768) and legal origin (beta = 1.385), both increase the strength of the positive relationship between BGD and SP. Results of HMR and bootstrapping corroborate each other and support the hypothesis H3–H5. The results for control variables are unchanged in model 2 and are consistent on both techniques, i.e., HMR and bootstrapping.

Like national culture, economic condition, financial development, and legal origin modify the stakeholders' demand for SP as theoretically conjectured by the political economy theory. To maintain the social contract with external stakeholders, board members adjust corporate responses per their demands. Due to the governance gap, firms in countries with weaker economic conditions are under more pressure to share the social burden of the governments and report their such activities. Similarly, existing and potential investors in financially developed countries demand more reporting from firms to sustain their market standing. Lastly, civil law has comparatively more developed laws on stakeholders' protection than shareholders' rights. The more empowered stakeholders in civil law countries ask the firms to report their sustainability activities more seriously. Hence, female directors (besides others) are more compelled to engage in SP in countries with weak economic conditions, strong financial development, and civil law legal systems. Failing to do so may risk the firm's legitimacy and damage its social contract with stakeholders in the context of political economy theory.

5. Robustness Tests

As discussed earlier, this research employed two different estimation techniques (HMR vs. bootstrapping) to ensure robust results. This study re-estimated the regression parameters by conducting several robustness tests to further corroborate their robustness.

5.1. Incorporating Additional Dimensions of National Culture

Firstly, the model included the two dimensions of national culture (power distance and long-term orientation), which were excluded due to multicollinearity issues. The results are reported in Table 6, which are consistent with those summarized in Table 5. Moreover, several researchers [9,15] have employed 'the number of female directors' as the proxy of BGD in their studies.

5.2. Employing Alternate Measure of BGD

To test the robustness of research findings with this alternate measure of BGD, the regression results were re-calculated by replacing the 'percentage of women on a board' with 'the number of women on a board'. Regression results with the alternate measure are attached in Table 7, which are again consistent with the results based on original measures of BGD. Moreover, robustness tests were also performed with alternate measures of the control variable (although not reported). All the tests with both HMR and bootstrapping validated the accuracy of existing results.

Table 6. Robustness tests with two additional measures of national culture (regression results).

	Sustainability Performance (SP)									
	Model 1					**Model 2**				
	Traditional Approach (HMR)		**Robust Approach (Bootstrapping)**			**Traditional Approach (HMR)**		**Robust Approach (Bootstrapping)**		
Variable	**Beta**	***p*-Value**	**SE**	**LCI**	**UCI**	**Beta**	***p*-Value**	**SE**	**LCI**	**UCI**
Board gender diversity (BGD)	1.870	0.000	0.178	1.516	2.234	1.477	0.000	0.208	1.073	1.886
Individualism (INDV)						0.070	0.886	0.668	−1.184	1.346
Uncertainty avoidance (UA)						1.051	0.000	0.279	0.512	1.592
Indulgence (INDL)						1.349	0.000	0.416	0.549	2.130
Masculinity (MAS)						−2.566	0.000	0.382	−3.336	−1.776
Long-term orientation (LTO)						2.093	0.000	0.591	0.972	3.202
Power distance (PD)						−2.469	0.000	0.557	−3.555	−1.397
Economic condition (ECO)						−2.669	0.000	0.403	−3.507	−1.887
Financial development (FDV)						1.561	0.000	0.241	1.096	2.055
Legal origin (LO)						0.653	0.093	0.478	−0.389	1.669
BGD × INDV						2.236	0.000	0.531	1.201	3.215
BGD × UA						1.155	0.000	0.268	0.627	1.640
BGD × INDL						1.220	0.000	0.459	0.308	2.175
BGD × MAS						−0.732	0.004	0.296	−1.294	−0.118
BGD × LTO						0.532	0.249	0.624	−0.672	1.691
BGD × PD						0.535	0.110	0.429	−0.346	1.386
BGD × ECO						−1.355	0.000	0.412	−2.165	−0.547
BGD × FDV						0.801	0.000	0.250	0.351	1.301
BGD × LO						1.391	0.001	0.512	0.385	2.416
Firm age	2.248	0.000	0.180	1.893	2.627	2.099	0.000	0.202	1.694	2.533
Profitability	−0.527	0.001	0.152	−0.887	−0.317	−0.562	0.000	0.155	−0.925	−0.352
Firm size	5.463	0.000	0.182	5.095	5.829	5.113	0.000	0.184	4.740	5.500
Leverage	0.085	0.563	0.332	−0.671	0.332	0.061	0.665	0.315	−0.750	0.321
Adjusted R square	0.272					0.334				
ΔR square						0.062				

LCI and UCI are the lower and upper (bootstrap) confidence intervals.

Table 7. Robustness tests with alternate measure of board gender diversity (regression results).

	Sustainability Performance (SP)									
	Model 1					**Model 2**				
	Traditional Approach (HMR)		**Robust Approach (Bootstrapping)**			**Traditional Approach (HMR)**		**Robust Approach (Bootstrapping)**		
Variable	**Beta**	***p*-Value**	**SE**	**LCI**	**UCI**	**Beta**	***p*-Value**	**SE**	**LCI**	**UCI**
Board gender diversity (BGD)	2.457	0.000	0.182	2.108	2.763	1.780	0.000	0.206	1.384	2.151
Individualism (INDV)						1.017	0.012	0.543	−0.041	2.051
Uncertainty avoidance (UA)						0.996	0.000	0.281	0.429	1.595
Indulgence (INDL)						0.571	0.024	0.351	−0.065	1.284
Masculinity (MAS)						−1.641	0.000	0.312	−2.271	−1.037
Economic condition (ECO)						−1.205	0.000	0.377	−1.938	−0.486
Financial development (FDV)						1.572	0.000	0.243	1.075	2.069
Legal origin (LO)						2.022	0.000	0.383	1.270	2.769
BGD × INDV						0.951	0.008	0.461	0.024	1.878
BGD × UA						0.972	0.000	0.263	0.466	1.473
BGD × INDL						1.237	0.000	0.349	0.605	1.926
BGD × MAS						−0.568	0.003	0.227	−1.024	−0.097
BGD × ECO						−0.934	0.000	0.327	−1.552	−0.291
BGD × FDV						0.705	0.000	0.239	0.226	1.185
BGD × LO						1.173	0.000	0.367	0.460	1.975
Firm age	2.297	0.000	0.169	1.980	2.605	2.118	0.000	0.197	1.752	2.465
Profitability	−0.502	0.001	0.144	−0.838	−0.318	−0.507	0.001	0.144	−0.838	−0.324
Firm size	5.084	0.000	0.183	4.707	5.507	4.782	0.000	0.183	4.398	5.195
Leverage	0.072	0.621	0.304	−0.830	0.313	0.049	0.726	0.298	−0.923	0.335
Adjusted R square	0.288					0.338				
ΔR square						0.05				

LCI and UCI are the lower and upper (bootstrap) confidence intervals.

5.3. Addressing Endogeneity Issues

Endogeneity is a well-known issue in the relationship between corporate governance and sustainability performance, as discussed in extant studies. Although several remedies are available in the literature to address this issue, Two-Stage Least Squares (2SLS) is widely accepted as one of the effective methods for dealing with endogeneity (Choudhury et al., 2021). To test the robustness of the results in this study, the baseline model was re-estimated using 2SLS.

Following previous studies on the BGD–SP relationship [68], this study employs board size as an instrumental variable in the 2SLS model. Theoretically, this instrumental variable is directly related to the predictor variable, as larger boards are expected to have more gender diversity. However, this instrumental variable is not directly associated with SP. Hence, it satisfies the assumptions for an instrumental variable in the BGD–SP relationship. Table 8 presents the results of the 2SLS regression. These results are consistent with the previously estimated results based on HMR and bootstrapping techniques.

Table 8. Two-stage least squares (2SLS) regression results.

Variable	Beta	Std. Error	*p*-Value
Board gender diversity (BGD)	0.192	0.205	0.000
Individualism (INDV)	0.044	0.254	0.030
Uncertainty avoidance (UA)	0.113	0.239	0.000
Indulgence (INDL)	0.084	0.409	0.009
Masculinity (MAS)	−0.117	0.262	0.000
Economic condition (ECO)	−0.116	0.298	0.000
Financial development (FDV)	0.134	0.182	0.000
Legal origin (LO)	0.167	0.307	0.000
BGD × INDV	0.112	0.406	0.001
BGD × UA	0.105	0.239	0.000
BGD × INDL	0.079	0.281	0.000
BGD × MAS	−0.033	0.192	0.025
BGD × ECO	−0.121	0.279	0.000
BGD × FDV	0.056	0.178	0.000
BGD × LO	0.088	0.301	0.000
Firm age	0.176	0.175	0.000
Profitability	−0.045	0.149	0.000
Firm size	0.405	0.158	0.000
Leverage	0.006	0.143	0.593

6. Conclusions

This study extends the nascent literature on the moderating role of country characteristics in the context of the BGD–SP relationship. Based on a sample of 5087 non-financial firms from 50 countries, the study first establishes that female directors induce a firm to engage in more sustainability activities. Moreover, it provides an incipient understanding of the interaction between contextual factors and BGD in determining a firm's choices regarding SP. The study empirically confirms that the adeptness of female directors in engaging in and promoting SP is contingent on country characteristics. The positive relationship between BGD and SP is more pronounced in countries with higher cultural orientations on individualism, uncertainty avoidance, indulgence, and femininity (versus masculinity). Similarly, more robust financial development, civil law legal system, and weaker economic conditions in a country also facilitate female directors to enhance the SP in firms. The study enlightens the significance of female directors and the relevance of the contextual environment in ascertaining SP.

Owing to the scarcity of empirical evidence on the moderating role of country characteristics in the BGD–SP relationship, the study contributes to theory and practice in several ways. From a theoretical standpoint, the study empirically tests and confirms the application of the political economy theory to explain the cross-country variation in SP through BGD. To the best of the researchers' knowledge, this is the first study that empirically investigated the contextual sensitivity of the BGD–SP relationship and offered preliminary insights to understand how the relationship responds to dynamic country characteristics.

7. Practical Implications and Future Research

From a practical standpoint, the findings suggest that firms should consider including females on their boards to enhance their response to sustainability performance (SP). However, progress in improving female representation on corporate boards is currently slow, which may impact the overall governance and effectiveness of firms. Additionally, management should tailor their SP policies with consideration for the country characteristics in which a firm operates. These findings should assist corporate decision-makers in balancing the effects of conflicting contextual forces on SP through corporate governance mechanisms. The insights from this research are equally valuable for national and international policymakers, urging them to take initiatives to ensure a minimum representation of females on corporate boards. Such steps will contribute to enhancing a firm's commitment to SP.

This study is limited by its focus on a single diversity facet of board members, i.e., gender type. The existing model can be extended by incorporating other diversity traits of board members such as race/ethnicity, social class, demographics, nationality, etc. The scope is also confined to only one aspect of corporate governance, i.e., BGD. Building upon this study, future researchers could pursue cross-country comparative research to investigate how other corporate governance mechanisms, like board size, board independence, etc., relate to SP under diverse institutional environments. Additionally, while Hofstede's cultural dimensions provide a useful framework for understanding cultural differences at a broad level, it is important to recognize its limitations. The use of them alongside other approaches is recommended in future studies for a more comprehensive understanding of culture. Hence, this study calls for more profound and finer-grained research to capture the contextual sensitivity of the relationship between corporate governance and sustainability performance. Owing to the cross-sectional nature of the data, this study could only relate BGD with SP within a diverse contextual environment without drawing any causal inferences. Future research is suggested to analyze panel data for deeper insights into how the relationships endure over multiple times.

Author Contributions: Conceptualization, H.G.D. and M.K.; Methodology, M.K., T.T. and P.B.; Software, H.G.D.; Validation, T.T., H.G.D. and P.B.; Formal analysis, M.K.; Investigation, M.K.; Resources, T.T. and H.G.D.; Data curation, M.K.; Writing—original draft, M.K., T.T., H.G.D. and P.B.; Writing—review & editing, T.T., H.G.D., M.K. and P.B.; Visualization, P.B.; Supervision, T.T. and H.G.D.; Project administration, T.T. and H.G.D. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data are contained within the article.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix

Table A1. Variable Definitions

Variables		Definition	Sources and References
Independent Variable			
Sustainability performance			
	SP	After collecting and analyzing data on 900 different data points: Bloomberg employs a highly comprehensive methodology in assigning an overall ESG score to each rated firm. Its value ranges from 0.1 to 100 for the level of a firm's sustainability performance.	[93–95]
Dependent Variable			
Board gender diversity	BGD	The 'percentage of female directors on a board'	[10]
Moderating Variables			
National culture	NC	The study proxied national culture based on four dimensions of Hofstede cultural index, i.e., individualism (INDV), masculinity (MAS), uncertainty avoidance (UA), and indulgence (INDL). Value for each dimension of national culture ranges from 0 to 100, where 0 indicates the lowest, whereas 100 exhibits the maximum cultural orientation towards a particular dimension.	[45,46,48]
Economic condition	ECO	Gross domestic product per capita.	[46,67]
Financial development	FDV	Stock market capitalization scaled by gross domestic product of a country.	[46,67]
Legal origin	LO	A dummy variable where 0 indicates the common law and 1 represents civil law legal system.	[68]
Control Variables			
Firm size		Natural logarithm of total assets	[103]
Firm age		The number of years since inception.	[104]
Profitability		Return on equity	[103]
Leverage		Debt-to-equity ratio	[105]

References

1. Jan, A.A.; Lai, F.-W.; Asif, M.; Akhtar, S.; Ullah, S. Embedding sustainability into bank strategy: Implications for sustainable development goals reporting. *Int. J. Sustain. Dev. World Ecol.* **2023**, *30*, 229–243. https://doi.org/10.1080/13504509.2022.2134230.
2. Trireksani, T.; Zeng, Y-T.; Djajadikerta, H.G. Extent of sustainability disclosure by Australian public universities: Inclusive analysis of key reporting media. *Aust. J. Public Adm.* **2021**, 80, 830-848. https://doi.org/10.1111/1467-8500.12469.
3. Stoelhorst, J.W.; Vishwanathan, P. Beyond Primacy: A Stakeholder Theory of Corporate Governance. *Acad. Manag. Rev.* **2024**, *49*, 107–134. https://doi.org/10.5465/amr.2020.0268.
4. Butt, P.; Kamran, M.; Afzal, F.; Mukit, M.M.H. Being agile in market orientation to enhance firm performance: The role of green supply chain management. *Int. J. Agil. Syst. Manag.* **2021**, *14*, 517–542. https://doi.org/10.1504/ijasm.2021.120237.
5. Jan, A.A.; Lai, F.-W.; Tahir, M. Developing an Islamic Corporate Governance framework to examine sustainability performance in Islamic Banks and Financial Institutions. *J. Clean. Prod.* **2021**, *315*, 128099. https://doi.org/https://doi.org/10.1016/j.jclepro.2021.128099.
6. Trireksani, T.; Djajadikerta, H.G.; Zhang, J. Perceived Importance of Corporate Sustainability Disclosure: Evidence from China. In *Disciplining the Undisciplined? CSR, Sustainability, Ethics & Governance*; Brueckner, M., Spencer, R., Paull, M., Eds.; Springer: Cham, Switzerland, 2018. https://doi.org/10.1007/978-3-319-71449-3_13.
7. Zhang, J.; Djajadikerta, H.G.; Trireksani, T. Corporate sustainability disclosure's importance in China: financial analysts' perception. *Soc. Responsib. J.* **2020**, *16*, 1169–1189. https://doi.org/10.1108/SRJ-10-2018-0272.
8. Ghassab, E.E.; Tilt, C.; Rao, K.K. Comprehensive board composition and corporate social responsibility disclosure: A case of Jordan before and after the Arab Spring crisis. *Meditari Account. Res.* 2024, *ahead-of-print*. https://doi.org/10.1108/MEDAR-03-2023-1948.
9. Issa, A.; Fang, H.-X. The impact of board gender diversity on corporate social responsibility in the Arab Gulf states. *Gend. Manag.* **2019**, *34*, 577–605. https://doi.org/10.1108/GM-07-2018-0087.

10. Katmon, N.; Zam, Z.M. Comprehensive Board Diversity and Quality of Corporate Social Responsibility Disclosure: Evidence from an Emerging Market. *J. Bus. Ethics* **2019**, *157*, 447–481. https://doi.org/10.1007/s10551-017-3672-6.
11. Choudhury, T.; Hasan, F.; Djajadikerta, H.; Hassan, M.; Kamran, M.; Boubaker, S.; Sarker, T. Renewable energy supply and risk in global banking. Available online: http://www.indiaenvironmentportal.org.in/files/file/Renewable%20Energy%20Supply.pdf (accessed on 8 September 2023).
12. Peng, X.-Y.; Fu, Y.-H.; Zou, X.-Y. Gender equality and green development: A qualitative survey. *Innov. Green Dev.* **2024**, *3*, 100089. https://doi.org/10.1016/j.igd.2023.100089.
13. Temiz, H.; Acar, M. Board gender diversity and corporate social responsibility (CSR) disclosure in different disclosure environments. *Corp. Soc. Responsib. Environ. Manag.* **2023**, *30*, 2247–2264. https://doi.org/https://doi.org/10.1002/csr.2481.
14. Kamran, M. *Corporate Governance, Corporate Social Responsibility and Firm Performance: The Role of Country Characteristics*; Edith Cowan University: Joondalup, Australia, 2022. Available online: https://ro.ecu.edu.au/theses/2499 (accessed on 7 July 2023).
15. Cook, A.; Glass, C. Women on corporate boards: Do they advance corporate social responsibility? *Hum. Relat.* **2018**, *71*, 897–924. https://doi.org/10.1177/0018726717729207.
16. Fadli, A.A.; Sands, J.; Jones, G.; Beattie, C.; Pensiero, D. Board Gender Diversity and CSR Reporting: Evidence from Jordan. *Australas. Account. Bus. Financ. J.* **2019**, *13*, 29–52. https://doi.org/10.14453/aabfj.v13i3.3.
17. Mallidis, I.; Giannarakis, G.; Sariannidis, N. Impact of board gender diversity on environmental, social, and ESG controversies performance: The moderating role of United Nations Global Compact and ISO. *J. Clean. Prod.* **2024**, *444*, 141047. https://doi.org/https://doi.org/10.1016/j.jclepro.2024.141047.
18. Zaid, M.; Wang, M.; Adib, M.; Sahyouni, A.; Abuhijleh, S. Boardroom nationality and gender diversity: Implications for corporate sustainability performance. *J. Clean. Prod.* **2020**, *251*, 119652. https://doi.org/10.1016/j.jclepro.2019.119652.
19. Rao, K.; Tilt, C. Board Composition and Corporate Social Responsibility: The Role of Diversity, Gender, Strategy and Decision Making. *J. Bus. Ethics* **2016**, *138*, 327–347. https://doi.org/10.1007/s10551-015-2613-5.
20. Pfeffer, J.; Salancik, G.R. *The External Control of Organizations: A Resource Dependence Perspective*; Harper & Row: Manhattan, NY, USA, 1978.
21. Hoang, G.; Luu, T.T.; Nguyen, T.T.; Tang, T.T.T.; Pham, N.T. Entrepreneurial leadership fostering service innovation in the hospitality firms: The roles of knowledge acquisition, market-sensing capability and competitive intensity. *Int. J. Contemp. Hosp. Manag.* **2024**, *36*, 1143–1169. https://doi.org/10.1108/IJCHM-08-2022-0969.
22. Pfeffer, J. Size and Composition of Corporate Boards of Directors: The Organization and its Environment. *Adm. Sci. Q.* **1972**, *17*, 218–228.
23. Glass, C.; Cook, A.; Ingersoll, A.R. Do Women Leaders Promote Sustainability? Analyzing the Effect of Corporate Governance Composition on Environmental Performance. *Bus. Strategy Environ.* **2016**, *25*, 495–511. https://doi.org/10.1002/bse.1879.
24. Galbreath, J. Are there gender-related influences on corporate sustainability? A study of women on boards of directors. *J. Manag. Organ.* **2011**, *17*, 17–38.
25. Lakhal, F.; Hamrouni, A.; Jilani, I.; Mahjoub, I.; Benkraiem, R. The power of inclusion: Does leadership gender diversity promote corporate and green innovation? *Res. Int. Bus. Financ.* **2024**, *67*, 102128. https://doi.org/https://doi.org/10.1016/j.ribaf.2023.102128.
26. Freeman, R.E. *Strategic Management: A Stakeholder Approach*; Pitman: Boston, MA, USA, 1984.
27. Gallén, M.L.; Peraita, C. The effects of national culture on corporate social responsibility disclosure: A cross-country comparison. *Appl. Econ.* **2018**, *50*, 2967–2979. https://doi.org/10.1080/00036846.2017.1412082.
28. He, X.; Jiang, S. Does gender diversity matter for green innovation? *Bus. Strategy Environ.* **2019**, *28*, 1341–1356. https://doi.org/10.1002/bse.2319.
29. Stajkovic, K.; Stajkovic, A.D. Ethics of Care Leadership, Racial Inclusion, and Economic Health in the Cities: Is There a Female Leadership Advantage? *J. Bus. Ethics* **2024**, *189*, 699–721. https://doi.org/10.1007/s10551-023-05564-0.
30. Rahman, A.; Sultana, N.; Mizanur Rahman, M. CSR vs Social Business for Sustainable Development. In *Governance and Sustainability*; Crowther, D., Seifi, S., Eds.; Emerald Publishing Limited: Bingley, UK, 2020; Volume 15, pp. 113–130. https://doi.org/10.1108/S2043-052320200000015007.
31. Gray, R.; Owen, D.; Adams, C. *Accounting & Accountability: Changes and Challenges in Corporate Social and Environmental Reporting*; Financial Times/Prentice Hall: London, UK, 1996.
32. Baker, P.; Smith, J.P.; Garde, A.; Grummer-Strawn, L.M.; Wood, B.; Sen, G.; Hastings, G.; Pérez-Escamilla, R.; Ling, C.Y.; Rollins, N.; McCoy, D. The political economy of infant and young child feeding: Confronting corporate power, overcoming structural barriers, and accelerating progress. *Lancet* **2023**, *401*, 503–524.
33. Deegan, C.M. *Financial Accounting Theory*, 4th ed.; McGraw-Hill Education: North Ryde, NSW, Australia, 2014.
34. Ramanathan, K.V. Toward a theory of corporate social accounting. *Account. Rev.* **1976**, *51*, 516.
35. Ho, S.S.H.; Oh, C.H.; Shapiro, D. Can Corporate Social Responsibility Lead to Social License? A Sentiment and Emotion Analysis. *J. Manag. Stud.* **2024**, *61*, 445–476. https://doi.org/https://doi.org/10.1111/joms.12863.
36. Oliver, A. *A Political Economy of Behavioural Public Policy*; Cambridge University Press: Cambridge, UK, 2023.
37. Wirba, A.V. Corporate Social Responsibility (CSR): The Role of Government in promoting CSR. *J. Knowl. Econ.* **2023**. https://doi.org/10.1007/s13132-023-01185-0.
38. Kortsch, T.; Bashenkhaeva, V.; Kauffeld, S. Learning from leaders: The mediating role of leadership between national culture and organizational learning culture. *Hum. Resour. Dev. Int.* **2023**, *26*, 151–174. https://doi.org/10.1080/13678868.2022.2060167.

39. Hofstede, G.; Hofstede, G.J.; Minkov, M. *Cultures and Organizations: Software of the Mind: Intercultural Cooperation and Its Importance for Survival*, 3rd ed.; McGraw-Hill: New York, NY, USA, 2010.
40. Halkos, G.; Skouloudis, A. Revisiting the relationship between corporate social responsibility and national culture: A quantitative assessment. *Manag. Decis.* **2017**, *55*, 595–613. https://doi.org/10.1108/MD-12-2016-0868.
41. Ringov, D.; Zollo, M. The impact of national culture on corporate social performance. *Corp. Gov.* **2007**, *7*, 476–485. https://doi.org/10.1108/14720700710820551.
42. Ho, F.N.; Wang, H.-M.D.; Vitell, S.J. A Global Analysis of Corporate Social Performance: The Effects of Cultural and Geographic Environments. *J. Bus. Ethics* **2012**, *107*, 423–433.
43. Ozkan, A.; Temiz, H.; Yildiz, Y. Climate Risk, Corporate Social Responsibility, and Firm Performance. *Br. J. Manag.* **2023**, *34*, 1791–1810. https://doi.org/10.1111/1467-8551.12665.
44. Thanetsunthorn, N. The impact of national culture on corporate social responsibility: Evidence from cross-regional comparison. *Asian J. Bus. Ethics* **2015**, *4*, 35–56. https://doi.org/10.1007/s13520-015-0042-2.
45. Gallego-Álvarez, P.I.; Ortas, P.E. Corporate environmental sustainability reporting in the context of national cultures: A quantile regression approach. *Int. Bus. Rev.* **2017**, *26*, 337–353. https://doi.org/10.1016/j.ibusrev.2016.09.003.
46. Disli, M.; Ng, A.; Askari, H. Culture, income, and CO2 emission. *Renew. Sustain. Energy Rev.* **2016**, *62*, 418–428. https://doi.org/10.1016/j.rser.2016.04.053.
47. Lahuerta-Otero, E.; Gonzalez-Bravo, M.I. Can National Culture Affect the Implementation of Common Sustainable Policies? A European Response. *Cross-Cult. Res.* **2018**, *52*, 468–495. https://doi.org/10.1177/1069397117739849.
48. Mohamed Adnan, S.; Hay, D.; van Staden, C.J. The influence of culture and corporate governance on corporate social responsibility disclosure: A cross country analysis. *J. Clean. Prod.* **2018**, *198*, 820–832. https://doi.org/10.1016/j.jclepro.2018.07.057.
49. Scholtens, B.; Dam, L. Cultural values and international differences in business ethics. *J. Bus. Ethics* **2007**, *75*, 273–284.
50. Vachon, S. International operations and sustainable development: Should national culture matter? *Sustain. Dev.* **2010**, *18*, 350. https://doi.org/10.1002/sd.398.
51. Ding, D.K.; Ferreira, C.; Ngo, V.M.; Nguyen, P.V.; Wongchoti, U. Corporate social responsibility and myopic management practice: Is there a link? *Rev. Quant. Financ. Account.* **2024**, *62*, 271–308. https://doi.org/10.1007/s11156-023-01212-w.
52. Chin, M.-Y.; Ong, S.-L.; Ooi, D.B.-Y.; Puah, C.-H. The impact of green finance on environmental degradation in BRI region. *Environ. Dev. Sustain.* **2024**, *26*, 303–318.
53. Miska, C.; Szőcs, I.; Schiffinger, M. Culture's effects on corporate sustainability practices: A multi-domain and multi-level view. *J. World Bus.* **2018**, *53*, 263–279. https://doi.org/10.1016/j.jwb.2017.12.001.
54. Bhalla, N.; Overton, H.K. Examining cultural impacts on consumers' environmental CSR outcomes. *Corp. Commun.* **2019**, *24*, 569–592. https://doi.org/10.1108/CCIJ-09-2018-0094.
55. Hatamleh, I.H.M.; Safori, A.O.; Ahmad, A.K.; Al-Etoum, N.M.D.I. Exploring the interplay of cultural restraint: The relationship between social media motivation and subjective happiness. *Soc. Sci.* **2023**, *12*, 228.
56. Shin, J.; Moon, J.J.; Kang, J. Where does ESG pay? The role of national culture in moderating the relationship between ESG performance and financial performance. *Int. Bus. Rev.* **2023**, *32*, 102071.
57. Guo, Q.; Liu, Z.; Li, X.; Qiao, X. Indulgence and Long Term Orientation Influence Prosocial Behavior at National Level. *Front. Psychol.* **2018**, *9*, 1798. https://doi.org/10.3389/fpsyg.2018.01798.
58. Ahmad, N.B.J.; Rashid, A.; Gow, J. Corporate board gender diversity and corporate social responsibility reporting in Malaysia. *Gend. Technol. Dev.* **2018**, *22*, 87–108. https://doi.org/10.1080/09718524.2018.1496671.
59. Aliyev, V. Assessment of the impact of Azerbaijani culture on management based on Hofstede's approach. *Pol. J. Manag. Stud.* **2023**, *27*, 7–22.
60. Lu, J.; Ren, L.; Zhang, C.; Liang, M.; Stasiulis, N.; Streimikis, J. Impacts of feminist ethics and gender on the implementation of CSR initiatives. *Filos. Sociol.* **2020**, *31*, 24–33.
61. Garcia-Sanchez, I.-M.; Cuadrado-Ballesteros, B.; Frias-Aceituno, J.-V. Impact of the Institutional Macro Context on the Voluntary Disclosure of CSR Information. *Long Range Plan.* **2016**, *49*, 15.
62. Orij, R. Corporate social disclosures in the context of national cultures and stakeholder theory. *Account. Audit. Account.* **2010**, *23*, 868–889.
63. Daniela, C.; Stefano, F.; Silvia, S. Does Institutional Context Affect CSR Disclosure? A Study on Eurostoxx 50. *Sustainability* **2018**, *10*, 2823.
64. Lattemann, C.; Fetscherin, M.; Alon, I.; Li, S.; Schneider, A.-M. CSR Communication Intensity in Chinese and Indian Multinational Companies. *Corp. Gov. Int. Rev.* **2010**, *17*, 426–442. https://doi.org/10.1111/j.1467-8683.2009.00758.x.
65. Alazzani, A.; Hassanein, A. Impact of gender diversity on social and environmental performance: Evidence from Malaysia. *Corp. Gov.* **2017**, *17*, 266–283. https://doi.org/10.1108/CG-12-2015-0161.
66. Fernandez-Feijoo, B.; Romero, S.; Ruiz-Blanco, S. Women on Boards: Do They Affect Sustainability Reporting? *Corp. Soc.—Responsib. Environ. Manag.* **2014**, *21*, 351.
67. Gallén, M.L.; Peraita, C. The Relationship between Femininity and Sustainability Reporting. *Corp. Soc. Responsib. Environ. Manag.* **2017**, *24*, 496–508. https://doi.org/10.1002/csr.1423.
68. Kamran, M.; Djajadikerta, H.G.; Mat Roni, S.; Xiang, E.; Butt, P. Board gender diversity and corporate social responsibility in an international setting. *J. Account. Emerg. Econ.* **2023**, *13*, 240–275. https://doi.org/10.1108/JAEE-05-2021-0140.

69. Baughn, C.C.; Bodie, N.L.; McIntosh, J.C. Corporate social and environmental responsibility in Asian countries and other geographical regions. *Corp. Soc.—Responsib. Environ. Manag.* **2007**, *14*, 189.
70. Kamal, Y. Stakeholders expectations for CSR-related corporate governance disclosure: Evidence from a developing country. *Asian Rev. Account.* **2021**, *29*, 97–127.
71. Williams, S.M. Voluntary environmental and social accounting disclosure practices in the Asia-Pacific region: An international empirical test of political economy theory. *Int. J. Account.* **1999**, *34*, 209–238. https://doi.org/10.1016/S0020-7063(99)00006-0.
72. Shoham, A.; Almor, T.; Lee, S.M.; Ahammad, M.F. Encouraging environmental sustainability through gender: A micro-foundational approach using linguistic gender marking. *J. Organ. Behav.* **2017**, *38*, 1356–1379. https://doi.org/10.1002/job.2188.
73. Barua, S. Financing sustainable development goals: A review of challenges and mitigation strategies. *Bus. Strategy Dev.* **2020**, *3*, 277–293. https://doi.org/https://doi.org/10.1002/bsd2.94.
74. Choudhury, T.; Kamran, M.; Djajadikerta, H.G.; Sarker, T. Can Banks Sustain the Growth in Renewable Energy Supply? An International Evidence. *Eur. J. Dev. Res.* **2021**, *35*, 20–50. https://doi.org/10.1057/s41287-021-00492-z.
75. Chundakkadan, R.; Sasidharan, S. Gender gap and access to finance: A cross-country analysis. *Rev. Dev. Econ.* **2022**, *26*, 180–207. https://doi.org/https://doi.org/10.1111/rode.12830.
76. Manuela, E.; Finn, B. Impact of CSR-Relevant News on Stock Prices of Companies Listed in the Austrian Traded Index (ATX). *Int. J. Financ. Stud.* **2019**, *7*, 36.
77. Xiong, W.; Dong, M.; Xu, C. Institutional Investors and Corporate Social Responsibility: Evidence from China. *Emerg. Mark. Financ. Trade* **2023**, *59*, 3281–3292. https://doi.org/10.1080/1540496X.2022.2088351.
78. Ma, C.; Chishti, M.F.; Durrani, M.K.; Bashir, R.; Safdar, S.; Hussain, R.T. The Corporate Social Responsibility and Its Impact on Financial Performance: A Case of Developing Countries. *Sustainability* **2023**, *15*, 3724.
79. Kolk, A.; Perego, P. Determinants of the adoption of sustainability assurance statements: An international investigation. *Bus. Strategy Environ.* **2010**, *19*, 182.
80. Sands, P. Environmental protection in the twenty-first century: Sustainable development and international law. In *The Global Environment*; Routledge: London, UK, 2023; pp. 116–137.
81. Frias-Aceituno, J.V.; Rodríguez-Ariza, L.Z.; Garcia-Sánchez, I.M. Explanatory Factors of Integrated Sustainability and Financial Reporting. *Bus. Strategy Environ.* **2014**, *23*, 56–72. https://doi.org/10.1002/bse.1765.
82. Ball, R.; Kothari, S.P.; Ashok, R. The effect of international institutional factors on properties of accounting earnings. *J. Account. Econ.* **2000**, *29*, 1–51. https://doi.org/10.1016/S0165-4101(00)00012-4.
83. Bose, S.; Lim, E.K.; Minnick, K.; Shams, S. Do foreign institutional investors influence corporate climate change disclosure quality? International evidence. *Corp. Gov. Int. Rev.* **2024**, *32*, 322–347. https://doi.org/https://doi.org/10.1111/corg.12535.
84. Simnett, R.; Vanstraelen, A.; Chua, W.F. Assurance on Sustainability Reports: An International Comparison. *Account. Rev.* **2009**, *84*, 937–967.
85. van der Laan Smith, J.; Adhikari, A.; Tondkar, R.H. Exploring differences in social disclosures internationally: A stakeholder perspective. *J. Account. Public Policy* **2005**, *24*, 123–151. https://doi.org/10.1016/j.jaccpubpol.2004.12.007.
86. Evans, O. *The Effects of US-China Trade War and Trumponomics*; Federal Reserve Bank of St Louis: St. Louis, MO, USA, 2019.
87. Hassan, M.K.; Kamran, M.; Djajadikerta, H.G.; Choudhury, T. Search for safe havens and resilience to global financial volatility: Response of GCC equity indexes to GFC and COVID-19. *Pac.-Basin Financ. J.* **2022**, *73*, 101768. https://doi.org/https://doi.org/10.1016/j.pacfin.2022.101768.
88. Rahman, M.A.; Khudri, M.M.; Kamran, M.; Butt, P. A note on the relationship between COVID-19 and stock market return: Evidence from South Asia. *Int. J. Islam. Middle East. Financ. Manag.* **2021**, *15*, 359–371, *ahead-of-print*. https://doi.org/10.1108/IMEFM-03-2021-0124.
89. Khan, A.; Muttakin, M.B.; Siddiqui, J. Corporate Governance and Corporate Social Responsibility Disclosures: Evidence from an Emerging Economy. *J. Bus. Ethics* **2013**, *114*, 207–223. https://doi.org/10.1007/s10551-012-1336-0.
90. Al-Tuwaijri, S.A.; Christensen, T.E.; Hughes, K.E. The relations among environmental disclosure, environmental performance, and economic performance: A simultaneous equations approach. *Account. Organ. Soc.* **2004**, *29*, 447–471. https://doi.org/10.1016/s0361-3682(03)00032-1.
91. Elena, E.-O.; María Ángeles, F.N.-I.; Idoya, F.-F.; Juana María, R.-L.; María Jesús, M.O.-T. Rating the Raters: Evaluating how ESG Rating Agencies Integrate Sustainability Principles. *Sustainability* **2019**, *11*, 915.
92. Tamimi, N.; Sebastianelli, R. Transparency among S&P 500 companies: An analysis of ESG disclosure scores. *Manag. Decis.* **2017**, *55*, 1660–1680. https://doi.org/10.1108/MD-01-2017-0018.
93. Cucari, N.; Orlando, B. Diversity of Board of Directors and Environmental Social Governance: Evidence from Italian Listed Companies. *Corp. Soc.—Responsib. Environ. Manag.* **2018**, *25*, 250–266. https://doi.org/10.1002/csr.1452.
94. Giannarakis, G. Corporate governance and financial characteristic effects on the extent of corporate social responsibility disclosure. *Soc. Responsib. J.* **2014**, *10*, 569–590. https://doi.org/10.1108/srj-02-2013-0008.
95. Wasiuzzaman, S.; Wan Mohammad, W.M. Board gender diversity and transparency of environmental, social and governance disclosure: Evidence from Malaysia. *Manag. Decis. Econ.* **2020**, *41*, 145–156. https://doi.org/10.1002/mde.3099.
96. Cosset, J.-C.; Somé, H.Y.; Valéry, P. Does Competition Matter for Corporate Governance? The Role of Country Characteristics. *J. Financ. Quant. Anal.* **2016**, *51*, 1231.
97. Jizi, M. The Influence of Board Composition on Sustainable Development Disclosure. *Bus. Strategy Environ.* **2017**, *26*, 640–655. https://doi.org/10.1002/bse.1943.

98. Jizi, M.I.; Salama, A.; Dixon, R.; Stratling, R. Corporate Governance and Corporate Social Responsibility Disclosure: Evidence from the US Banking Sector. *J. Bus. Ethics* **2014**, *125*, 601–615. https://doi.org/10.1007/s10551-013-1929-2.
99. Andrikopoulos, A.; Kriklani, N. Environmental Disclosure and Financial Characteristics of the Firm: The Case of Denmark. *Corp. Soc. Responsib. Environ. Manag.* **2013**, *20*, 55–64. https://doi.org/10.1002/csr.1281.
100. Withisuphakorn, P.; Jiraporn, P. The effect of firm maturity on corporate social responsibility (CSR): Do older firms invest more in CSR? *Appl. Econ. Lett.* **2016**, *23*, 298–301. https://doi.org/10.1080/13504851.2015.1071464.
101. Muller, A.; Kolk, A. Extrinsic and Intrinsic Drivers of Corporate Social Performance: Evidence from Foreign and Domestic Firms in Mexico. *J. Manag. Stud.* **2010**, *47*, 1.
102. Chang, Y.K.; Oh, W.-Y.; Park, J.H.; Jang, M.G. Exploring the Relationship Between Board Characteristics and CSR: Empirical Evidence from Korea. *J. Bus. Ethics* **2017**, *140*, 225–242. https://doi.org/10.1007/s10551-015-2651-z.
103. Francoeur, C.; Labelle, R.A.; Balti, S.; El Bouzaidi, S. To What Extent Do Gender Diverse Boards Enhance Corporate Social Performance? *J. Bus. Ethics* **2019**, *155*, 343–357. https://doi.org/10.1007/s10551-017-3529-z.
104. Ruslan, S.M.M. Firm performance: Case of Malaysian logistics companies. *Acad. Strateg. Manag. J.* **2018**, *17*, 1–5.
105. Baldini, M.; Liberatore, G.; Mazzi, F.; Terzani, S. Role of Country- and Firm-Level Determinants in Environmental, Social, and Governance Disclosure. *J. Bus. Ethics* **2018**, *150*, 79–98. https://doi.org/10.1007/s10551-016-3139-1.
106. Pucheta-Martínez, M.A.C.; Gallego-Álvarez, I. An international approach of the relationship between board attributes and the disclosure of corporate social responsibility issues. *Corp. Soc. Responsib. Environ. Manag.* **2019**, *26*, 612–627. https://doi.org/10.1002/csr.1707.
107. Petrocelli, J.V. Hierarchical Multiple Regression in Counseling Research: Common Problems and Possible Remedies. *Meas. Eval. Couns. Dev.* **2003**, *36*, 9–22.
108. Lewis, M. Stepwise versus Hierarchical Regression Pros and Cons. Available online: https://files.eric.ed.gov/fulltext/ED534385.pdf (accessed on 9 April 2023).
109. Arnold, H.J.; Evans, M.G. Testing Multiplicative Models Does Not Require Ratio Scales. *Organ. Behav. Hum. Perform.* **1979**, *24*, 41.
110. Evans, M.G. A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organ. Behav. Hum. Decis. Process.* **1985**, *36*, 305.
111. Field, A.P. *Discovering Statistics Using IBM SPSS Statistics*, 5th ed.; SAGE Publications: Thousand Oaks, CA, USA, **2018**.
112. Matson, J.E.; Huguenard, B.R. Evaluating Aptness of a Regression Model. *J. Stat. Educ.* **2017**, *15*. https://doi.org/10.1080/10691898.2007.11889469.
113. Pek, J.; Wong, O.; Wong, A.C.M. How to Address Non-normality: A Taxonomy of Approaches, Reviewed, and Illustrated. *Front. Psychol.* **2018**, *9*, 2104. https://doi.org/10.3389/fpsyg.2018.02104.
114. Ernst, A.F.; Albers, C.J. Regression assumptions in clinical psychology research practice-a systematic review of common misconceptions. *PeerJ* **2017**, *5*, e3323. https://doi.org/10.7717/peerj.3323.
115. Williams, M.N.; Gomez Grajales, C.A.; Kurkiewicz, D. Assumptions of Multiple Regression: Correcting Two Misconceptions. *Pract. Assess. Res. Eval.* **2013**, *18*, 11.
116. Aguinis, H.; Gottfredson, R.K.; Joo, H. Best-Practice Recommendations for Defining, Identifying, and Handling Outliers. *Organ. Res. Methods* **2013**, *16*, 270–301. https://doi.org/10.1177/1094428112470848.
117. Robert, S. An Introduction to Bootstrap Methods: Examples and Ideas. *Sociol. Methods Res.* **1989**, *18*, 243–291. https://doi.org/10.1177/0049124189018002003.
118. Michael, W. Bootstrapped Confidence Intervals as an Approach to Statistical Inference. *Organ. Res. Methods* **2005**, *8*, 454–470. https://doi.org/10.1177/1094428105280059.
119. Sacha, V.; Panagiotakos, D.B. Insights in Hypothesis Testing and Making Decisions in Biomedical Research. *Open Cardiovasc. Med. J.* **2016**, *10*, 196–200. https://doi.org/10.2174/1874192401610010196.
120. Harjoto, M.A.; Rossi, F. Religiosity, female directors, and corporate social responsibility for Italian listed companies. *J. Bus. Res.* **2019**, *95*, 338–346. https://doi.org/10.1016/j.jbusres.2018.08.013.
121. Eagly, A.H.; Johannesen-Schmidt, M.C.; van Engen, M.L. Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychol. Bull.* **2003**, *129*, 569–591. https://doi.org/10.1037/0033-2909.129.4.569.
122. Gaur, A.S.; Kumar, V.; Singh, D. Institutions, resources, and internationalization of emerging economy firms. *J. World Bus.* **2014**, *49*, 12.
123. Riaz, Z.; Ray, S.; Ray, P.K.; Kumar, V. Disclosure practices of foreign and domestic firms in Australia. *J. World Bus.* **2015**, *50*, 781.