QUALITY OF CORPORATE GOVERNANCE, FIRM VALUE, AND ESG CONTROVERSIES: FURTHER EVIDENCE

Isaac Bonaparte *, Henry Kimani Mburu **

* Department of Accounting, College of Business and Economics, Towson University, Towson, USA
** *Corresponding author,* Department of Accounting and Finance, School of Business and Economics, Catholic University of Eastern Africa, Nairobi, Kenya
Contact details: Catholic University of Eastern Africa, Nsubuga Hall, Room NH31, P. O. Box 62157, 00200 Nairobi, Kenya

How to cite this paper: Bonaparte, I., & Mburu, H. K. (2025). Quality of corporate governance, firm value, and ESG controversies: Further evidence. *Corporate Ownership & Control, 22*(2), 157–170. https://doi.org/10.22495/cocv22i2art15

ISSN Online: 1810-3057
ISSN Print: 1727-9232

Received: 08.04.2025
Revised: 22.05.2025; 16.06.2025
Accepted: 27.06.2025

JEL Classification: D22, G34, M12, M14, Q54
DOI: 10.22495/cocv22i2art15

Abstract

This study focuses on the relationship between corporate governance quality and environmental, social, and governance (ESG) controversies and how these two affect firm value. The study differs from recent and contemporaneous research on ESG controversies in that we use corporate governance indices that not only focus on the basic attributes required in corporate governance codes but also features that dictate how corporate boards (and executives) operate (behave). In addition, we examine the mediation effect of ESG controversies on the corporate governance-firm value relationship. We apply agency, legitimacy, and structural contingency theories to support our hypotheses that firms with high environmental-related ESG controversies are more likely to structure their corporate governance differently, and with higher quality, than those with low controversies. We also contend that environmental-related ESG controversies mediate the relationship between firm value and corporate governance. With 6,043 firm-year observations spanning the 2010–2023 period, we construct three corporate governance indices that together comprise 22 board features. We conduct both univariate analysis and multivariate analysis, including mediation analysis, in SAS software. We find significant empirical support for our hypotheses and reveal that the basic characteristics of corporate governance do not influence firm value. Our findings support the transparent reporting hypothesis of corporate governance and not the opportunistic reporting hypothesis. We conclude that firms with ESG controversies have significantly higher corporate governance quality and lower firm value. Furthermore, ESG controversies significantly mediate this relationship. We also discuss the limitations of our study and recommend areas of further research.

Keywords: Corporate Governance, Corporate Governance Quality, ESG, ESG Controversies, Environmental-Related ESG Controversies, Firm Value, Transparent Reporting Hypothesis, Mediation

Authors' individual contribution: Conceptualization — H.K.M.; Methodology — I.B. and H.K.M.; Software — H.K.M.; Validation — I.B.; Formal Analysis — H.K.M.; Investigation — I.B. and H.K.M.; Data Curation — I.B.; Writing — I.B. and H.K.M.; Supervision — I.B.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

Corporate governance plays a critical role in how firms are managed and perceived by investors and other stakeholders. Corporate governance gained prominence following the scandals at the beginning of the century and later due to the financial crisis of 2008. Following these events, many governments

and market regulators have since taken steps to regulate the corporate terrain by issuing corporate governance codes and passing laws for guidance on how to structure corporate boards.

Over and above the regulations, investors and other key stakeholders are always keen on the quality of corporate governance. This is because high-quality corporate governance has a signaling effect on the investors about the reduced likelihood that insiders expropriate their wealth (Armstrong et al., 2012). For this reason, company executives are also keen on how corporate governance is structured to enhance its quality. As a result, extant research has examined different questions relating to the quality of corporate governance.

Research has provided empirical evidence that the quality of corporate governance is positively and significantly associated with firm value (Durnev & Kim, 2005). Corporate social responsibility (Kranthi et al., 2022; Worokinasih & Mohamad Zaini, 2020), organizational identification (Kranthi et al., 2022), and environmental, social, and governance (ESG) performance (Zhou et al., 2022), among others, have been shown to mediate this relationship. In recent years, research has also focused on the question of how corporate governance relates to ESG reporting and performance and its components. The ESG controversies have been among the components of interest in this nascent research stream. A contemporaneous study by Rahmadini and Hartanti (2025) documents that ESG controversies have no significant effect on the positive relationship between ESG performance and firm performance.

Our study contributes to this research through distinct perspectives. We focus on the relationship between corporate governance quality and ESG controversies. We also revisit the relationship between corporate governance quality and firm value. We are specifically interested in answering the question of whether the prevalence of ESG controversies is accompanied by changes in corporate governance structure and quality. To better answer this question, we focus on environmental-related ESG controversies. We contend that these controversies are exogenous and can, therefore, be anticipated. We argue that those responsible for structuring the board would do it in a way to mitigate the negative effects of environmental-related ESG controversies.

We aim to address the following research questions:

RQ1: Is there a relationship between ESG controversies and the quality of corporate governance?

RQ2: Do ESG controversies mediate the relationship between corporate governance and firm value?

These are important questions for several reasons. Firstly, they help us to gain a better understanding of ESG controversies and how they influence the firm. This is crucial given that a recent systematic literature review (Kalyani & Mondal, 2024) found that ESG controversies are not among the categories of content in top-cited papers, indicating how nascent this subject is. Secondly, they can help resolve the tension between the two competing hypotheses that explain the structuring of corporate governance. These include the transparent reporting hypothesis and the opportunistic reporting hypothesis. We apply the agency theory, structural contingency theory, and the legitimacy theory to support our argument.

Our study makes important contributions to extant literature. First, we use an exogenous factor, not based on the laws and regulations, that influences the structure of corporate governance. Second, we adduce empirical evidence to show that the relationship between corporate governance quality and firm value is mediated by ESG controversies for firms prone to these controversies. Third, we add to the understanding of the quality of corporate governance by showing empirical evidence that it is more a function of the committee structure and the additional clauses that provide latitude and caution for directors' behavior, rather than of the basic features of board structure. Fourth, we provide evidence to show that in an ESG controversies milieu, the transparent reporting hypothesis offers a better explanation of the board structure than the opportunistic reporting hypothesis. Moreover, these findings have operational implications for investors, market regulators, and company executives to the extent that they add to our knowledge of how corporate governance structure can influence firm value.

The rest of the paper is arranged as follows. We present a literature review and develop our hypotheses in Section 2, explain the methodology in Section 3, describe the research sample, present the results in Section 4, and discuss the findings in Section 5. Finally, we conclude the study and include the limitations and recommendations for further research in Section 6.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

In an editorial piece, Catuogno (2022) points out that organizations are in a state of change due to both internal and external factors and that there are various corporate governance (among others) transformations to be addressed. These transformations are important if corporate governance is to sustain firms in the wake of many risks and complexities. Corporate governance refers to those mechanisms through which a firm's objectives are established and pursued in the social, regulatory, and market milieu (Dhameja & Agarwal, 2017). Better corporate governance attenuates negative effects related to corporate disclosures and financial reporting quality. In support of this, Al-Hadi et al. (2018) found that the negative relationship between royal family members of the board and corporate disclosure was reduced by 3% with improved corporate governance. In addition, firms with high-quality corporate governance are associated with better performance (Dhameja & Agarwal, 2017), and investors are assured of reduced risk from insider expropriation.

Hence, it is plausible that corporate governance mechanisms can differ across diverse environments. Moreover, Helm (2022) notes that setting ESG targets has resulted in a situation where corporate governance is increasingly influenced by stakeholders with varying backgrounds rather than the boards of directors. Additionally, due to the changing reporting requirements related to ESG, investors are bearing more on firms to make changes in their corporate governance (Wright, 2016).

Corporate governance may also be viewed differently depending on the executives' attitude to risk. On the one hand, for risk-seeking executives, high-quality corporate governance would motivate investment in riskier but high-value projects. On the other hand, if executives were opportunistic,

high-quality corporate governance would reduce the taking of excessive risks for personal benefits. Hence, corporate governance reduces both upside and downside risk-taking (Ali et al., 2022). To this end, corporate governance may be more focused on monitoring (e.g., independence of directors and their subcommittees) or on incentive mechanisms (e.g., stock options and bonuses). The former makes executives more cautious in reducing the downside risks, while the latter provides incentives for excessive risks, increasing both the upside and downside risks. The former is consistent with the transparent reporting hypothesis, while the latter is in line with the opportunistic reporting hypothesis. Many studies have considered how corporate governance mechanisms affect a firm's risk-taking, although the direction of this relationship remains unclear (Ali et al., 2022). Variation in risk aversion affects the association between corporate governance and firm value (Antonczyk & Salzmann, 2014), and uncertainty avoidance relates negatively to firm valuation.

High-quality corporate governance is associated with higher firm value because investors do not anticipate expropriation arising from managerial self-interest (Jo & Harjoto, 2011; Klapper & Love, 2004; La Porta et al., 2002; Monks, 2001). Firms with high-quality governance are associated with high stock market values (Durnev & Kim, 2005). This is also true for firms that voluntarily adopt better than legally required governance mechanisms (Chhaochharia & Laeven, 2009). These results are true in both developed and developing countries (Ammann et al., 2011). These findings are attributed to the fact that high-quality corporate governance is critical to efficiency in capital allocation, preservation, and growth, which is important for business sustainability (Khan, 2019). Moreover, corporate governance mechanisms reduce agency problems (Lin, 2005), resulting in high value for investors. These findings are also consistent with Aguilera et al.'s (2008) classification of corporate governance structures, in which "open-system" structures pay attention to the context in which the firm operates.

Uniformity of corporate governance structures has been emphasized in recent years in a bid to assure investors. In line with this, many countries around the world have developed corporate governance codes for public companies (Burton, 2000; Dhameja & Agarwal, 2017) to enhance uniformity in governance structures. These codes prescribe various internal corporate governance features.

Internal corporate governance features like director independence, institutional holding, chief executive officer (CEO) duality, diversity, and director shareholding have been considered in prior research. Focusing on board diversity as a means of improving corporate governance, Carter et al. (2003) find a significantly positive relationship between board diversity and firm value. Similar results are documented by Bonaparte et al. (2022). Overall, Batra et al. (2022) find that these variables influence the firm risk in different ways. Firm risk, in turn, affects firm value as the executives choose investment projects conditional on their attitude to risk. Firm value is one of the indicators of sustainable firm growth and a comprehensive pointer to corporate governance practices employed (Saltaji, 2017).

Extant literature has applied different theories to explain the nexus between corporate governance quality and firm value. Benson et al. (2011) use the stakeholder theory lens and find that firms with good corporate governance avoid unnecessary investment in stakeholders and focus on shareholder value maximization. Organizational theory contends that successful firms apply structural contingency theory to continuously align their structural forms with the prevailing milieu (Burton, 2000). Moreover, institutional isomorphism, one of the organizational paradigms that supports uniformity in governance structures, postulates the existence of mimetic isomorphism, which results from standard responses to uncertainty.

Agency theory suggests that the appropriateness of board monitoring depends on the agency-cost-reducing mechanisms that are employed, among other factors. In line with this argument, studies have shown that some firms take a contingency approach to the structure of their internal corporate governance rather than simply implementing the governance code. Furthermore, according to the legitimacy theory, firms must consider the rights of other stakeholders in addition to those of investors. If this is not the case, the firm may face societal sanctions in the form of operations, resources, and demand for its products (de Silva Lokuwaduge & de Silva, 2020). When there is congruency between a firm's value system and that of the larger society, then the firm gains legitimacy (de Silva Lokuwaduge & de Silva, 2020).

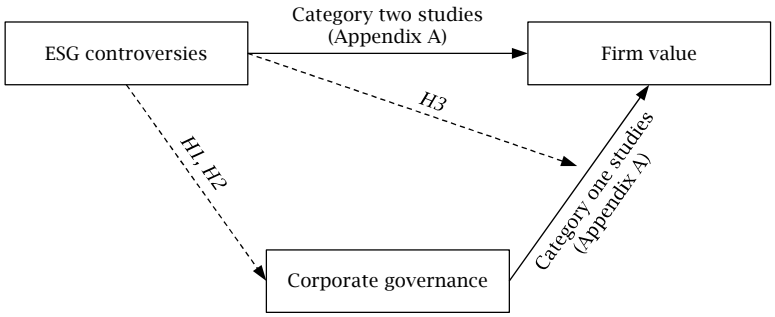
Relying on these theoretical persuasions, we argue that it would be reasonable to expect a corporate governance response to situations where environmental-related ESG controversies are prevalent. Such responses would mitigate the negative consequences of the uncertainty attendant to the controversies, which include negative perceptions by investors (Ettore & de Campos Barros, 2024), among others. ESG controversies refer to corporate ESG adverse news that places firms under investors' attention due to media focus. ESG controversies, therefore, make the firm's information environment uncertain (Mburu & Bonaparte, 2024). We contend that firms with a higher prevalence of ESG controversies are more likely to have different corporate governance structures compared to those without. This would be necessitated by the desire to diminish the resulting negative effects. Avoiding such effects ensures that firm value is not damaged, as happens when there are ESG controversies (Brinette et al., 2024). Prior research, like Byard and Weintrop (2006), documents that increasing the quality of corporate governance is associated with improving the information environment. Our argument is related to a recent study by Elamer and Boulhaga (2024), who found that governance strategies can be used to attenuate the effects of ESG controversies. It is also related to earlier findings in Armstrong et al. (2012), where exogenous factors influence the quality of corporate governance. In our study, ESG controversies are the exogenous factor.

Prior research documents significant relationships between ESG controversies and firm value on the one hand and corporate governance and firm value on the other. de Abreu Passos and de Campos-Rasera (2024) find a negative relationship between ESG controversies and firm value. Aouadi and Marsat (2018) show that interacting with corporate social performance, ESG controversies positively affect firm value. In addition, Moffitt et al. (2024) document a significant and positive relationship between ESG performance and the internal control environment. This implies that ESG performance is positively related to the quality of

corporate governance, which ensures a strong internal control environment. Moreover, 73% of ESG controversies have been attributed to business ethics ("Study says 73% of ESG controversies", 2022) issues, which can in turn be related to the quality of corporate governance.

We summarize the key prior research relationships key to our study in Figure 1. We also provide a list of studies that have examined corporate governance, firm value, and ESG controversies relationships in Appendix A.

Figure 1. Conceptual framework



In this study, we contend that by structuring the board of directors differently to enhance the quality of corporate governance, it is possible to mitigate the negative effects of environmental-related ESG controversies. We argue that the relationship between corporate governance and firm value is mediated by ESG controversies. Consequently, we hypothesize that:

H1: Firms with high ESG controversies have different corporate governance structures from those with low ESG controversies.

H2: Firms with high ESG controversies have a higher quality of corporate governance compared to those with low ESG controversies.

H3: ESG controversies mediate the relationship between corporate governance and firm value.

3. METHODOLOGY

3.1. Data sources and sample construction

We obtained data on board structure and ESG controversies from the London Stock Exchange Group (LSEG) company scores database (formerly Refinitiv) for climate change data[1]. We obtained data on the board of directors from the Institutional Shareholder Services (ISS) database for corporate governance[2]. Firm-level data for the construction of control variables were from the Compustat database.

Table 1. Sample construction

Description	*No. of firm-year observations*
Firms with reported ESG controversies	64,431
Less firms without CUSIP identifiers	(27,823)
Less firms without all the required attributes for corporate governance indices	(25,705)
Sample size before merging with control variables	10,903
Less firms without the required data for control variables	(4,860)
Final sample size	6,043

Note: CUSIP — Committee on Uniform Securities Identification Procedures.

To construct our sample, we identified firms that have environmental-related ESG controversies in the LSEG database from 2010 to 2023. We then constructed our sample as presented in Table 1.

Our final sample had 796 unique firms and 6,043 firm-year observations spanning over 37 different industries. We provide the distribution of sample firms in the sample description section.

3.2. Variable construction

We start by constructing three corporate governance variables. We refer to these as our corporate governance indices. We categorize internal corporate governance mechanisms into basic attributes and additional attributes. The first index (*CORPGOVINDEX_2*) comprises five basic attributes of corporate governance known to influence its quality. These are: 1) number of directors on the board, 2) proportion of independent directors, 3) average director tenure, 4) CEO duality, and 5) board gender diversity. The second index (*CORPGOVESG*) comprises 17 corporate governance additional attributes reported as part of ESG variables in the LSEG database. These governance pillar attributes (see Appendix B) assess the quality of corporate governance based on how the board (and its committees) is constituted and operated. Some of the attributes also assess the latitude given to the directors in making key decisions. The third index (*CORPGOVINDEX_ALL*) is a combination of all 22 attributes in the two indices. For the variable extraction, we use principal component analysis in factor analysis. The use of factor analysis is consistent with prior studies (Renders & Gaeremynck, 2012) and is preferred because it captures the shared variation of the battery of attributes that we have included in our indices.

3.3. Univariate analysis

We conduct two different analyses in this part. We first conduct Pearson's correlation analysis between the quality of corporate governance and ESG controversy variables. This helps us to get an early indication as to whether the two variables have a significant relationship as per our contention in hypotheses *H1* and *H2*. Furthermore, the results from this analysis also afford us an opportunity to

[1] https://www.lseg.com/en/data-analytics/financial-data/company-data
[2] https://www.iss-corporate.com/solutions/governance-solutions/

assess the likelihood of multicollinearity arising from significantly correlated independent variables. Nevertheless, we also compute the variance inflation factors (VIF) in all our regression models to further check multicollinearity.

We then conduct the t-test and the Wilcoxon test for the difference in means and medians, respectively. To carry out these tests, we first partition our sample into two groups, the high and low ESG controversies. We code firms with ESG controversies score above the mean, 1 (for high), and those with scores below the mean, 0 (for low). Partitioning the sample provides the means to assess whether the existence of a phenomenon is accompanied by differences in a studied variable, in this case, the quality of corporate governance. This is consistent with prior research where comparisons between firms in the same sample are being made (Anantharaman & Zhang, 2011; Armstrong et al., 2012; Bonaparte et al., 2022; Mburu & Bonaparte, 2024). Our argument is that if corporate governance is structured differently due to the existence of ESG controversies, there should be significant differences in the quality of corporate governance between firms with low and high ESG controversies.

3.4. Multivariate analysis

To test our hypotheses, we conduct a series of ordinary least squares cross-sectional regression analyses. Our models are:

Model 1

$$CORPGOV = \alpha + \beta ESGCONTROV + Control\ variables + INDUSTRY + YEAR \quad (1)$$

Model 2

$$Tobin's\ Q = \alpha + \beta_1 CORPGOV + \beta_2 ESGCONTROV + Control\ variables + INDUSTRY + YEAR \quad (2)$$

We use Model 1 to test hypotheses *H1* and *H2* and Model 2 to test hypothesis *H3*. The variable *CORPGOV* is the corporate governance index, which has three variations: *CORPGOVESG, CORPGOVINDEX_2*, and *CORPGOVINDEX_ALL*. In both models, we control for size, defined as the natural logarithm of the market value, growth opportunities proxied by market-to-book value, leverage, return on assets (ROA), research and development (R&D) input, accruals earnings management, and real activities earnings management. We define all our variables in Appendix C.

We estimate each of these models three times. For each estimate, we use a different index. This enables us to assess whether the quality of corporate governance changes based on the structure of the board and which aspects of it are significant. Our analysis is not subject to endogeneity concerns, given that the ESG controversies are an exogenous variable. Said differently, while it is possible that high ESG controversies may influence the corporate governance structure, the opposite is not possible. It is intuitively impractical that high-quality corporate governance may attenuate environmental-related ESG controversies, which are to a large extent beyond the control of the firm executives.

4. RESULTS

In this Section, we start by explaining our sample distribution, then the descriptive statistics. We then present our univariate results and finish with the multivariate results.

4.1. Sample distribution

Our sample comprises 6,043 firm-year observations distributed as shown in Table 2.

Table 2. Sample distribution

Year distribution		
Year	***N***	***Percentage***
2010	317	5.25
2011	321	5.31
2012	335	5.54
2013	332	5.49
2014	329	5.44
2015	446	7.38
2016	501	8.29
2017	502	8.31
2018	496	8.21
2019	496	8.21
2020	556	9.20
2021	547	9.05
2022	554	9.17
2023	311	5.15
Total	6,043	100.00
S&P index distribution		
Capitalization	***N***	***Percentage***
400	1,732	28.66
500	2,551	42.21
600	1,760	29.12
Total	6,043	100.00

Industry distribution		
Fama and French code	***N***	***Percentage***
FF34 (Business services)	571	9.45
FF42 (Retail)	513	8.49
FF36 (Electronic equipment)	474	7.84
FF21 (Machinery)	387	6.40
FF41 (Wholesale)	358	5.92
FF2 (Food products)	282	4.67
FF14 (Chemicals)	282	4.67
FF12 (Medical equipment)	263	4.35
FF30 (Petroleum and natural gas)	243	4.02
FF37 (Measuring and control equipment)	218	3.61
FF9 (Consumer goods)	211	3.49
FF13 (Pharmaceutical products)	202	3.34
FF19 (Steel works, etc.)	177	2.93
FF17 (Construction materials)	175	2.90
FF23 (Automobiles and trucks)	169	2.80
FF35 (Computers)	167	2.76
FF43 (Restaurants and hotels)	163	2.70
FF10 (Apparel)	145	2.40
FF38 (Business supplies)	126	2.09
FF24 (Aircraft)	117	1.94
FF18 (Construction)	104	1.72
FF22 (Electrical equipment)	93	1.54
FF39 (Shipping containers)	76	1.26
Rest 14 industries	508	8.41
Total	6,043	100

The sample data is for the period 2010–2023 and comprises 796 firms distributed over 37 different industries. We categorize industries using the Fama and French 48 industry classification.

The distribution by year shows that the observations in our sample vary between 5–9%. Though we find a slight elevation in the percentage in the period 2015–2022, we don't consider this significant enough to mean clustering. All the same, we control for fixed year effects in our multivariate models to take care of any year-related factors.

Considering the S&P index distribution, we find that most of our observations are from S&P 500 (large cap firms), while those for small and medium cap firms are about 29% each. This is expected given that large firms have the resources to allow them to make more disclosures compared to smaller firms. Furthermore, large firms are more likely to have ESG controversies not only due to the scale of their operations but also due to the scrutiny from investors, analysts, regulators, and the public. Nevertheless, we do not interpret this distribution as a cause of concern as to bias our results.

The industry distribution shows that industry FF20 (Fabricated products) has the fewest observations, with nine (0.15%), while industry FF34 (Business services) has the most, with 571 (9.5%) (the data is part of "others" in Table 2). Hence, we do not have an over-represented industry in our sample. Matching the Fama and French classifications with the 2-digit Standard Industry Classification (SIC) industry codes, we find that 697 firm-year observations (11.5%) are from the environmentally sensitive industries. Environmentally sensitive industries have been classified in Gerwanski (2020) as those with 2-digit SIC codes 08, 10–14, 26, 28, 33–34, and 49. Again, this means that our observations do not cluster over a few industries. This allays any fear of bias in our results arising from industry clustering. Notwithstanding this confidence, we control for industry fixed effects in all our multivariate model estimations.

4.2. Descriptive statistics

We present our descriptive statistics in Table 3. We include our main variables and control variables. We transform all our variables using natural logarithms except for the corporate governance indices, ESG controversies scores, and the earnings management variables *ADA* and *CZ2*.

Table 3. Descriptive statistics

Variable	*N*	*Minimum*	*Mean*	*50th percentile*	*Std. dev.*	*Maximum*
CORPGOVINDEX_ALL	6043	-3.180	0.065	-0.069	0.977	5.255
CORPGOVESG	6043	-1.717	-1.088	-1.181	0.564	2.384
CORPGOVINDEX_2	6043	-4.282	0.115	0.009	0.956	3.160
ESGCONTROV	6043	-1.000	-0.873	-1.000	0.266	-0.006
SIZE	6043	4.034	8.606	8.454	1.514	14.659
GROWTH	6043	-1.696	1.126	1.051	0.849	7.163
LEV	6043	0.000	0.258	0.241	0.179	2.233
ROA	6043	-0.734	0.059	0.060	0.078	0.628
RD	6043	0.000	0.041	0.010	0.099	3.928
ADA	6043	-22.628	0.121	-0.001	1.789	58.312
CZ2	6043	-22.668	0.161	0.036	1.588	11.483
Tobin's Q	6043	0.122	2.002	1.546	1.680	23.269

Overall, the descriptive statistics do not show evidence of outliers in our variables, which would have an undue influence on our findings. This is except for the variables *RD, ADA*, and *CZ2*, for which the standard deviation is greater than the mean. To allay concerns over outlier effects on our results, we calculate the influence diagnostics for our variables to assess cases of influential observations. We do this using the influence option in the SAS PROC REG statement.

Our influence diagnostics results (not tabulated) show that only 16 observations have the R-Student statistic above the general cut-off of two (Besley et al., 1980). Out of these, only one observation has an R-Student value of 4.17, with the rest being in the range 2–2.5. Furthermore, the output statistics (DFBETAS) for all our variables are well below the general cut-off of two. Therefore, we conclude that our sample is apt for analysis.

4.3. Univariate analysis

4.3.1. Pearson's correlation analysis

In Pearson's correlation analysis, we include only our main variables of interest: the corporate governance indices, ESG controversy scores, and *Tobin's Q,* our proxy for firm value. We show our results in Table 4.

Table 4. Correlation matrix

Variable	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
(1) *Tobin's Q*	1	0.049*** (< 0.0001)	0.029** (0.0183)	0.044*** (0.0003)	-0.01785 (0.1433)	-0.020 (0.1045)
(2) *CORPGOVINDEX_ALL*		1	0.739*** (< 0.0001)	0.766*** (< 0.0001)	0.174*** (< 0.0001)	0.109*** (< 0.0001)
(3) *CORPGOVESG*			1	0.134*** (< 0.0001)	0.081*** (< 0.0001)	0.053*** (< 0.0001)
(4) *CORPGOVINDEX_2*				1	0.179*** (< 0.0001)	0.120*** (< 0.0001)
(5) *ESGCONTROV*					1	0.272*** (< 0.0001)
(6) *ENVIRONCONTROV*						1

*Note: ENVIRONCONTROV is a dummy variable coded 1 if the ESG controversies are environmental-related controversies. ***, **, * show significance at the 1%, 5%, and 10% levels, respectively.*

Consistent with our contention in hypothesis H1, we find that there is a positive and significant correlation between the quality of corporate governance and the environmental-related ESG controversies at the 1% level. We also find that despite a positive and significant correlation between the quality of corporate governance and firm value at the 1% level, firm value and the environmental-related ESG controversies are not correlated.

4.3.2. Difference in means and medians

Our next univariate analysis test is for the difference in means and medians. For this analysis, we use the t-test and the Wilcoxon test, respectively. To make this possible, we partition our sample firms into two groups based on their ESG controversy scores. We classify all firm-year observations above the mean ESG controversies score as high controversies (we code them 1) and all other observations as low controversies (we code them 0). We assign this classification to a categorical variable, *CONTROLEVEL*. Partitioning the sample based on the mean or median is consistent with prior research (Cremers & Nair, 2005). It is also fitting in our case because the scores for the 5th percentile to the 75th percentile (which includes the median) were equal to -1. Our argument here is that if firms structure their corporate governance to favorably deal with and mitigate the consequences of environmental-related ESG controversies, we expect a significant difference in the quality of corporate governance between the low and high firm-year observations. We present our results for these analyses in Table 5. In support of hypothesis *H2*, our results show that firms with high ESG controversies have significantly higher mean and median quality of corporate governance at the 1% level. We seek to find further support for these preliminary findings in multivariate analysis, for which we present our results in the next Section.

Table 5. Test of differences results

Panel A: Differences in means				
Variable	***Mean***		***t-value of the difference (1-0)***	***p-value***
	High ESG controversies N = 1365 (coded 1)	***Low ESG controversies N = 4678 (coded 0)***		
CORPGOVINDEX_ALL	0.361	-0.021	11.87***	< 0.0001
CORPGOVINDEX_2	0.411	0.028	13.48***	< 0.0001
CORPGOVESG	-1.005	-1.112	5.55***	< 0.0001
Panel B: Difference in medians				
Variable	***Median***		***z-value of the difference (1-0)***	***p-value***
	High ESG controversies N = 1365 (coded 1)	***Low ESG controversies N = 4678 (coded 0)***		
CORPGOVINDEX_ALL	0.165	-0.148	12.73***	< 0.0001
CORPGOVINDEX_2	0.317	-0.082	12.82***	< 0.0001
CORPGOVESG	-1.123	-1.187	6.63***	< 0.0001

*Note: ***, **, * show significance at the 1%, 5%, and 10% levels, respectively.*

4.4. Multivariate results

4.4.1. Corporate governance quality and ESG controversies

We present our regression in Table 6, which has three panels:

- Panel A shows results for the comprehensive corporate governance index;
- Panel B for the board structure and operation corporate governance index;
- Panel C for the board characteristics corporate governance index.

Our results show that controlling firm-level factors, industry and year fixed effects, and the quality of corporate governance increases with the increase in ESG controversies. This result is replicated in all the estimates with the three corporate governance indices. This provides support for hypotheses *H1* and *H2*.

Table 6. Regression results for the corporate governance model (Part 1)

Variable	***Coefficient***	***t-value***	***p-value***	***VIF***
Panel A: Comprehensive corporate governance index (CORPGOVINDEX_ALL)				
Intercept	-0.681	-6.61	< 0.0001	0
ESGCONTROV	**0.301*** **	**6.23**	**< 0.0001**	**1.310**
SIZE	0.121	12.69	< 0.0001	1.667
GROWTH	-0.022	-1.41	0.1573	1.374
LEV	0.585	9.01	< 0.0001	1.072
ROA	-0.299	-1.83	0.0675	1.301
RD	-0.036	-0.91	0.3616	1.087
ADA	0.001	0.17	0.8682	1.095
CZ2	-0.013	-1.7	0.0884	1.099
Year fixed effects	Yes			
Industry fixed effects	Yes			
N	6,043			
Adjusted R-squared	0.2054			
F-statistics (p-value)	61.06 (< 0.0001)			
Highest VIF value	1.667			

Table 6. Regression results for the corporate governance model (Part 2)

Variable	*Coefficient*	*t-value*	*p-value*	*VIF*
Panel B: Board structure and operation corporate governance index (CORPGOVESG)				
Intercept	-0.955	-14.59	< 0.0001	0
ESGCONTROV	**0.179*** **	**5.83**	**< 0.0001**	**1.310**
SIZE	0.012	1.93	0.054	1.667
GROWTH	-0.027	-2.71	0.0068	1.374
LEV	0.111	2.69	0.0073	1.072
ROA1	0.323	3.11	0.0019	1.301
RD	0.007	0.28	0.7821	1.087
ADA	0.002	0.53	0.5991	1.095
CZ2	0.000	0.06	0.9493	1.099
Year fixed effects	Yes			
Industry fixed effects	Yes			
N	6,043			
Adjusted R-squared	0.037			
F-statistics (p-value)	9.93 (< 0.0001)			
Highest VIF value	1.667			
Panel C: Board characteristics corporate governance index (CORPGOVINDEX_2)				
Intercept	-1.209	-13.54	< 0.0001	0
ESGCONTROV	**0.142*** **	**3.4**	**0.0007**	**1.310**
SIZE	0.159	19.22	< 0.0001	1.667
GROWTH	0.013	0.94	0.3478	1.374
LEV	0.677	12.01	< 0.0001	1.072
ROA	-0.985	-6.95	< 0.0001	1.301
RD	-0.065	-1.89	0.0582	1.087
ADA	-0.002	-0.37	0.7139	1.095
CZ2	-0.019	-2.98	0.0029	1.099
Year fixed effects	Yes			
Industry fixed effects	Yes			
N	6,043			
Adjusted R-squared	0.3756			
F-statistics (p-value)	140.77 (< 0.0001)			
Highest VIF value	1.667			

*Note: ***, **, * show significance at the 1%, 5%, and 10% levels, respectively.*

4.4.2. Corporate governance, firm value, and ESG controversies

We then present our regression results for the corporate governance and firm value model in Table 7. Like Table 6, this table has three panels, one for each of the three corporate governance indices.

Our results show that there is a positive (negative) and significant relationship between firm value and corporate governance quality (ESG controversies). These results suggest that ESG controversies may have a mediating effect on the relationship between firm value and corporate governance quality. This leads us to our test for hypothesis *H3*. For this test, we use causal mediation effect analysis in Model 2, which allows us to test whether there is a significant mediation effect.

Table 7. Regression results for the corporate governance and firm value model (Part 1)

Variable	*Coefficient*	*t-value*	*p-value*	*VIF*
Panel A: Comprehensive corporate governance index (CORPGOVINDEX_ALL)				
Intercept	-0.112	-0.71	0.4808	0
CORPGOVINDEX_ALL	**0.041****	**2.06**	**0.0392**	**1.25875**
ESGCONTROV	**-0.317**	**-4.25**	**< 0.0001**	**1.31785**
SIZE	0.045	3.05	0.0023	1.71018
GROWTH	0.723	30.36	< 0.0001	1.37458
LEV	1.037	10.62	< 0.0001	1.0747
ROA	6.257	24.96	< 0.0001	1.29226
RD	0.287	4.71	< 0.0001	1.08686
ADA	-0.005	-0.45	0.6514	1.09591
CZ2	-0.049	-4.32	< 0.0001	1.09927
Year fixed effects	Yes			
Industry fixed effects	Yes			
N	6,043			
Adjusted R-squared	0.3636			
F-statistics (p-value)	128.84 (< 0.0001)			
Highest VIF value	1.710			
Panel B: Board structure and operation corporate governance index (CORPGOVESG)				
Intercept	-0.112	-0.71	0.4808	0
CORPGOVINDEX_ALL	**0.041****	**2.06**	**0.0392**	**1.25875**
ESGCONTROV	**-0.317**	**-4.25**	**< 0.0001**	**1.31785**
SIZE	0.045	3.05	0.0023	1.71018
GROWTH	0.723	30.36	< 0.0001	1.37458
LEV	1.037	10.62	< 0.0001	1.0747
ROA	6.257	24.96	< 0.0001	1.29226
RD	0.287	4.71	< 0.0001	1.08686
ADA	-0.005	-0.45	0.6514	1.09591
CZ2	-0.049	-4.32	< 0.0001	1.09927
Year fixed effects	Yes			
Industry fixed effects	Yes			
N	6,043			
Adjusted R-squared	0.3640			
F-statistics (p-value)	129.06 (< 0.0001)			
Highest VIF value	1.665			

Table 7. Regression results for the corporate governance and firm value model (Part 2)

Variable	*Coefficient*	*t-value*	*p-value*	*VIF*
Panel C: Board characteristics corporate governance index (CORPGOVINDEX_2)				
Intercept	-0.139	-0.86	0.3895	0
CORPGOVINDEX_2	**0.001**	**0.04**	**0.9712**	**1.60297**
ESGCONTROV	**-0.305**	**-4.1**	**< 0.0001**	**1.31205**
SIZE	0.050	3.32	0.0009	1.76823
GROWTH	0.722	30.32	< 0.0001	1.37436
LEV	1.056	10.75	< 0.0001	1.08662
ROA	6.242	24.79	< 0.0001	1.30311
RD	0.286	4.68	< 0.0001	1.08749
ADA	-0.005	-0.45	0.6535	1.09595
CZ2	-0.050	-4.36	< 0.0001	1.10029
Year fixed effects	Yes			
Industry fixed effects	Yes			
N	6,043			
Adjusted R-squared	0.3631			
F-statistics (p-value)	128.59 (< 0.0001)			
Highest VIF value	1.768			

*Note: ***, **, * show significance at the 1%, 5%, and 10% levels, respectively.*

4.4.3. Mediation analysis

We use the PROC CAUSALMED procedure in SAS software to test whether ESG controversies mediate the relationship between firm value and corporate governance quality. We present our causal mediation results in Table 8.

Our results are consistent with the regression analysis in the section above. They show that, as per prior studies, there is a significant and positive relationship between corporate governance and firm value. Additionally, and of more significance to our study, we find a positive and significant direct mediation effect at the 1% level.

Table 8. Causal mediation results

Effect	*Estimate*	*Standard error*	*Wald 95% confidence limits*		*Z*	*Pr > |Z|*
Total effect	0.0493***	0.0184	0.0133	0.0853	2.68	0.0073
Controlled direct effect (CDE)	0.0588***	0.0184	0.0228	0.0948	3.20	0.0014
Natural direct effect (NDE)	0.0588***	0.0184	0.0227	0.0949	3.19	0.0014
Natural indirect effect (NIE)	-0.0095***	0.0022	-0.0137	-0.0053	-4.41	<.0001
Percentage mediated	-19.254**	8.5164	-35.945	-2.5616	-2.26	0.0238
Percentage due to interaction	0.0841	1.4274	-2.7136	2.8818	0.06	0.953
Percentage eliminated	-19.338**	8.6873	-36.364	-2.3108	-2.23	0.026

*Note: ***, **, * show significance at the 1%, 5%, and 10% levels, respectively.*

5. DISCUSSION OF THE RESULTS

5.1. Univariate findings

Our correlation analysis results suggest that firms exposed to high ESG controversies have higher quality corporate governance compared to those with low controversies. This provides preliminary support for our hypotheses *H1* and *H2*. This is an indication that firms enhance their corporate governance to deal with negative consequences pertaining to environmental-related ESG controversies, which supports our argument. We also find that there is a positive and significant correlation between firm value and the quality of corporate governance as documented in extant literature.

Results for the test of differences in means and medians show that all three corporate governance indices have significantly higher means and medians at the 1% level for the firms with high controversies than those with low controversies. These results are consistent with those from correlation analysis. Together, these findings provide preliminary support for our hypotheses *H1* and *H2*.

5.2. Multivariate findings

We now discuss our multivariate results, starting with corporate governance quality, firm value, and then mediation.

5.2.1. Corporate governance quality and ESG controversies findings

Given that ESG controversies are exogenous, our results suggest that firms respond to the existence of ESG controversies by structuring their corporate governance in such a way as to mitigate their effects. This increase in the quality of corporate governance is, however, more attributable to how the board operates rather than to its basic characteristics. The more detailed operational clauses and the committee's structure result in an increase of about 18% (see Panel B of Table 6) while the basic characteristics of the board result in only a 14% (see Panel C of Table 6) increase. These effect sizes are economically significant and would warrant due attention by regulators and company executives.

These findings support our hypotheses *H1* and *H2* that firms with high ESG controversies have a different corporate governance structure from those with low ESG controversies. Furthermore, firms with high ESG controversies have a higher quality of corporate governance compared to those with low ESG controversies. These results are consistent with prior research that investors exert more scrutiny on companies with high ESG controversies (Ettore & de Campos Barros, 2024). Moreover, they also support prior findings by Bonaparte (2024) to the extent that firms would want to counter the declining earnings quality and loss of financial analyst coverage (Mburu & Bonaparte, 2024).

These findings support our argument that management takes proactive action in anticipation of ESG controversies in structuring their boards.

5.2.2. Corporate governance, firm value, and ESG controversies findings

The results show that improving corporate governance quality enhances firm value, while the prevalence of ESG controversies destroys firm value. The effects of ESG controversies are significant at the 1% level. These results support our hypotheses *H1* and *H2* and are consistent with extant literature, as shown in our conceptual framework in Figure 1. These findings are consistent with Brinette et al. (2024), who find a negative relationship between ESG controversies and firm value.

The use of two separate indices (*CORPGOVINDEX_2* and *CORPGOVESG*) and a comprehensive index (*CORPGOVINDEX_ALL*) that combines the two affords us a window to better understand how corporate governance quality influences firm value. Our results show that the effect of corporate governance quality on firm value is not driven by the basic characteristics of board size, director independence, gender diversity, board tenure, and CEO duality. This is because the coefficient of our variable *CORPGOVINDEX_2,* which captures the effects of these characteristics, is not significant ($\beta = 0.001$, p-value = 0.9712). Instead, the effect on firm value is attributable to the way the board is structured in terms of committees and the clauses that govern how the board operates. These factors, listed in Appendix B, comprise variable *CORPGOVESG*. The coefficient for this variable is significant at the 1% level ($\beta = 0.088$, p-value = 0.0048). This is an important contribution to extant literature because hitherto, it has not been established that some aspects of corporate governance add to firm value while others do not. These two indices, when combined, have a reduced effect on firm value, going by the coefficient of our third index, variable *CORPGOVINDEX_ALL* ($\beta = 0.041$, p-value = 0.0392), which is significant at the 5% level. The combined index has a 50% lower effect size compared to that of *CORPGOVESG*.

5.2.3. Mediation analysis findings

Results from mediation analysis show a positive and significant direct mediation effect (NDE) at the 1% level. An increase of 1 percentage point in the quality of corporate governance is associated with an increase of 0.6% in firm value. Moreover, a negative and significant indirect mediation effect (NIE) at the 1% level means that ESG controversies have a negative and significant mediation effect on the firm value-corporate governance quality relationship. These results show that ESG controversies mediate about 19% of the effect of corporate governance quality on firm value. This confirms our hypothesis *H3*, that ESG controversies have a mediating effect on the quality of the corporate governance-firm value relationship.

This finding explains why management would want to beef up the quality of corporate governance in an ESG controversy environment because that counteracts the negative effect of the controversies on the firm value. Thus, we also add to previous knowledge on the effect of ESG controversies on firm value that this is by mediation rather than direct effect.

6. CONCLUSION

We examine ESG controversies and how they affect the quality of corporate governance and firm value. We find empirical evidence in support of our three hypotheses. Firms with a prevalence of environmental-related ESG controversies have different (and higher quality) corporate governance structures compared to those without. We also find that ESG controversies mediate the relationship between corporate governance and firm value.

We conclude that firms that are prone to environmental-related ESG controversies structure their boards in a way to enhance the quality of corporate governance. In addition, ESG controversies mediate the relationship between firm value and corporate governance quality. Our results support the conclusion that the transparent reporting hypothesis offers a more fitting explanation for improving the quality of corporate governance in these firms than the opportunistic reporting hypothesis.

Our research design allows us to also conclude that conditional on ESG controversies, the governance features relating to committees and other operational controls on directors' decisions and behavior are the major drivers of the quality of corporate governance rather than the basic features of emphasized in most codes (percentage of independent directors, average tenure, board gender diversity, CEO duality, and the board size).

We recognize the differences in the ESG data that are available from different databases (e.g., MSCI KLD database, Sustainalytics, US Environmental Protection Agency [EPA]). These databases use different algorithms to come up with their ESG measures. Our use of data from only one database is a major limitation in our study.

Stakeholder activism, regulatory environment, developed financial markets, and the rule of law vary across jurisdictions. The US is strong in all these aspects. This reality is another limitation in our study. This is so to the extent that our study sample only comprises US firms. Our results may differ in both significance and effect size in different jurisdictions. We are, therefore, cognizant of the generalizability limitation of our findings.

We suggest further research to address the major limitations of our study, including the use of different data sources and sample firms in different environments. Furthermore, research focusing on the effect of ESG controversies on the quality of corporate governance to consolidate our knowledge on this very interesting aspect of ESG performance is still important, given the nascent state of research on ESG controversies.

While a huge research effort has been put into ESG performance, firm performance, and firm value, it is important to delve more into the specific aspects of ESG performance, such as ESG controversies. Our study findings added to recent research (Aouadi & Marsat, 2018; Bonaparte, 2024; Brinette et al., 2024; Elamer & Boulhaga, 2024; Ettore & de Campos Barros, 2024; de Abreu Passos & de Campos-Rasera, 2024; Rahmadini & Hartanti, 2025) suggest strongly that there is much more to understand about ESG controversies and how they affect corporate governance, firm value, financial reporting, and investor behavior. This understanding would be of great assistance to regulators, company management, and other market players in the provision and implementation of corporate governance codes and legislation.

REFERENCES

Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Organization Science, 19*(3), 475–492. https://doi.org/10.1287/orsc.1070.0322

Al-Hadi, A., Al-Yahyaee, K. H., Hussain, S. M., & Taylor, G. (2018). Market risk disclosures, corporate governance structure and political connections: Evidence from GCC firms. *Applied Economic Letters, 25*(19), 1346–1350. https://doi.org/10.1080/13504851.2017.1420877

Ali, S., Liu, B., & Su, J. J. (2022). Does corporate governance have a differential effect on downside and upside risk? *Journal of Business Finance & Accounting, 49*(9–10), 1642–1695. https://doi.org/10.1111/jbfa.12606

Ammann, M., Oesch, D., & Schmid, M. M. (2011). Corporate governance and firm value: International evidence. *Journal of Empirical Finance, 18*(1), 36–55. https://doi.org/10.1016/j.jempfin.2010.10.003

Anantharaman, D., & Zhang, Y. (2011). Cover me: Managers' responses to changes in analyst coverage in the post-regulation FD period. *The Accounting Review, 86(6), 86*(6), 1851–1885. https://doi.org/10.2308/accr-10126

Antonczyk, R. C., & Salzmann, A. J. (2014). Corporate governance, risk aversion and firm value. *Applied Financial Economics, 24*(8), 543–556. https://doi.org/10.1080/09603107.2014.892195

Aouadi, A., & Marsat, S. (2018). Do ESG controversies matter for firm value? Evidence from international data. *Journal of Business Ethics, 151*, 1027–1047. https://doi.org/10.1007/s10551-016-3213-8

Armstrong, C. S., Balakrishnan, K., & Cohen, D. (2012). Corporate governance and the information environment: Evidence from state antitakeover laws. *Journal of Accounting and Economics, 53*(1–2), 185–204. https://doi.org/10.1016/j.jacceco.2011.06.005

Batra, S., Saini, M., & Yadav, M. (2022). Impact of corporate governance on firm risk: A literature review. *The IUP Journal of Corporate Governance, 21*(3), 39–55. https://iupindia.in/ViewArticleDetails.asp?ArticleID=768

Benson, B. W., Davidson, W. N., III, Wang, H., & Worrell, D. L. (2011). Deviations from expected stakeholder management, firm value, and corporate governance. *Financial Management, 40*(1), 39–81. https://doi.org/10.1111/j.1755-053X.2010.01134.x

Besley, D. A., Kuh, E., & Welsch, R. E. (1980). *Regression statistics, identifying influential data and sources of collinearity.* John Wiley & Sons.

Bonaparte, I. (2024). Environmental, social, and governance controversies and earnings quality. *Corporate Ownership & Control, 21*(4), 89–105. https://doi.org/10.22495/cocv21i4art8

Bonaparte, I., Mburu, H. K., & Sun, H.-L. (2022). Board diversity: Are firms rewarded? *Journal of Corporate Accounting & Finance, 34*(1), 101–118. https://doi.org/10.1002/jcaf.22584

Brinette, S., Sonmez, F. D., & Tournus, P. S. (2024). ESG controversies and firm value: Moderating role of board diversity and board independence. *IEEE Transactions on Engineering Management, 71*, 4298–4307. https://doi.org/10.1109/TEM.2023.3236667

Bruno, V., & Claessens, S. (2010). Corporate governance and regulation: Can there be too much of a good thing? *Journal of Financial Intermediation, 19*(4), 461–482. https://doi.org/10.1016/j.jfi.2009.10.001

Burton, P. (2000). Antecedents and consequences of corporate governance structures. *Corporate Governance: An International Review, 8*(3), 194–203. https://doi.org/10.1111/1467-8683.00198

Byard, D., Li, Y., & Weintrop, J. (2006). Corporate governance and the quality of financial analysts' information. *Journal of Accounting and Public Policy, 25*(5), 609–625. https://doi.org/10.1016/j.jaccpubpol.2006.07.003

Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity and firm value. *The Financial Review, 38*(1), 33–53. https://doi.org/10.1111/1540-6288.00034

Catuogno, S. (2022). Editorial: New frontiers of corporate governance — Managing growing complexity and risk. *Risk Governance and Control: Financial Markets & Institutions, 12*(3), 4–6. https://doi.org/10.22495/rgcv12i3editorial

Chhaochharia, V., & Laeven, L. (2009). Corporate governance norms and practices. *Journal of Financial Intermediation, 18*(3), 405–431. https://doi.org/10.1016/j.jfi.2008.10.001

Cohen, D. A., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of accounting and Economics, 50*(1), 2–19. https://doi.org/10.1016/j.jacceco.2010.01.002

Cremers, K. J. M., & Nair, V. B. (2005). Governance mechanisms and equity prices. *The Journal of Finance, 60*(6), 2859–2894. https://doi.org/10.1111/j.1540-6261.2005.00819.x

de Abreu Passos, G., & de Campos-Rasera, P. P. (2024). Do ESG controversies influence firm value? An analysis with longitudinal data in different countries. *Brazil Business Review, 21*(4), Article e20221326. https://doi.org/10.15728/bbr.2022.1326.en

de Silva Lokuwaduge, C. S., & de Silva, K. (2020). Emerging corporate disclosure of environmental social and governance (ESG) risks: An Australian study. *Australasian Accounting Business & Finance Journal, 14*(2), 35–50. https://doi.org/10.14453/aabfj.v14i2.4

Dhameja, N. L., & Agarwal, V. (2017). Corporate governance structure. *Indian Journal of Industrial Relations, 53*(1), 72–85. https://www.jstor.org/stable/26536438

Durnev, A., & Kim, E. H. (2005). To steal or not to steal: Firm attributes, legal environment, and valuation. *The Journal of Finance, 60*(3), 1461–1493. https://doi.org/10.1111/j.1540-6261.2005.00767.x

Elamer, A. A., & Boulhaga, M. (2024). ESG controversies and corporate performance: The moderating effect of governance mechanisms and ESG practices. *Corporate Social Responsibility and Environmental Management, 31*(4), 3312–3327. https://doi.org/10.1002/csr.2749

Ettore, L. A. G., & de Campos Barros, L. A. B. (2024). Foreign investors' perception of ESG controversies in Brazil. *Revista de Gestão e Secretariado, 15*(12). https://doi.org/10.7769/gesec.v15i12.4568

Gerwanski, J. (2020). Does it pay off? Integrated reporting and cost of debt: European evidence. *Corporate Social Responsibility and Environmental Management, 27*(5), 2299–2319. https://doi.org/10.1002/csr.1965

Helm, T. (2022, May 5). ESG stakeholder activism is transforming corporate governance. *IFLR.* https://www.iflr.com/article/2a63733ixysbvclsrkr2j/esg-stakeholder-activism-is-transforming-corporate-governance

Ionescu, L. (2012). Effects of corporate governance on firm value. *Economics, Management, and Financial Markets, 7*(4), 215–220. https://www.ceeol.com/search/article-detail?id=15466

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

Kalyani, S., & Mondal, R. (2024). Is ESG disclosure creating value propositions for the firms? An SLR and meta-analysis of how ESG affects the financials of a firm. *Corporate Ownership & Control, 21*(1), 96–117. https://doi.org/10.22495/cocv21i1art9

Khan, M. (2019). Corporate governance, ESG, and stock returns around the world. *Financial Analysts Journal, 75*(4), 103–123. https://doi.org/10.1080/0015198X.2019.1654299

Klapper, L. F., & Love, I. (2004). Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance, 10*(5), 703–728. https://doi.org/10.1016/S0929-1199(03)00046-4

Kranthi, A. K., Ahmed, A., & Singh, S. (2022). Influence of corporate governance on firm value: Sequential mediating role of CSR and organizational identification. *The IUP Journal of Corporate Governance, 21*(4), 62–76. https://iupindia.in/ViewArticleDetails.asp?ArticleID=6738

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics, 58*(1–2), 3–27. https://doi.org/10.1016/S0304-405X(00)00065-9

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. (2002). Investor protection and corporate valuation. *The Journal of Finance, 57*(3), 1147–1170. https://doi.org/10.1111/1540-6261.00457

Lee, K.-W., & Lee, C.-F. (2009). Cash holdings, corporate governance structure and firm valuation. *Review of Pacific Basin Financial Markets and Policies, 12*(3), 475–508. https://doi.org/10.1142/S021909150900171X

Lin, Y.-F. (2005). Corporate governance, leadership structure and CEO compensation: Evidence from Taiwan. *Corporate Governance: An International Review, 13*(6), 825–835. https://doi.org/10.1111/j.1467-8683.2005.00473.x

Mburu, H. K., & Bonaparte, I. (2024). Financial analysts' coverage, forecast accuracy, and climate change vulnerability. *Corporate Ownership & Control, 21*(3), 191–205. https://doi.org/10.22495/cocv21i3art16

Moffitt, J. S., Patin, J.-C. A., & Watson, L. (2024). Corporate environmental, social, and governance (ESG) performance and internal control environment. *Accounting Horizons, 38*(3), 103–124. https://doi.org/10.2308/HORIZONS-2020-172

Monks, R. A. G. (2001). Redesigning corporate governance structures and systems for the twenty first century. *Corporate Governance: An International Review, 9*(3), 143–147. https://doi.org/10.1111/1467-8683.00241

Rahmadini, S., & Hartanti, D. (2025). ESG, financial performance, and the moderating role of ESG controversies. *Jurnal Dinamika Akuntansi, 17*(1), 34–49. https://doi.org/10.15294/jda.v17i1.17301

Renders, A., & Gaeremynck, A. (2012). Corporate governance, principal-principal conflicts, and firm value in European listed companies. *Corporate Governance: An International Review, 20*(2), 125–143. https://doi.org/10.1111/j.1467-8683.2011.00900.x

Saltaji, I. M. F. (2017). Corporate governance: The impact on the firm value. *Internal Auditing & Risk Management, 46*(2), 36–43. https://aimr.univath.ro/en/article/CORPORATE-GOVERNANCE-THE-IMPACTS-ON-THE-FIRM-VALUE~1113.html

Study says 73% of ESG controversies due to business ethics. (2022, April 25). *Mint*. https://www.livemint.com/news/india/study-says-73-of-esg-controversies-due-to-business-ethics-11650886650407.html

Worokinasih, S., & Mohamad Zaini, M. L. Z. b. (2020). The mediating role of corporate social responsibility (CSR) disclosure on good corporate governance (GCG) and firm value. *Australasian Accounting Business & Finance Journal, 14*(1), 88–96. https://doi.org/10.14453/aabfj.v14i1.9

Wright, C. (2016, September 15). *Best managed companies 2016: ESG to the fore in Asia corporate governance*. Euromoney. https://www.euromoney.com/article/27bjsstsqxhkmh0zyz1pv/benchmarking/best-managed-companies-2016-esg-to-the-fore-in-asia-corporate-governance/

Zhou, G., Liu, L., & Luo, S. (2022). Sustainable development, ESG performance and company market value: Mediating effect of financial performance. *Business Strategy and the Environment, 31*(7), 3371–3387. https://doi.org/10.1002/bse.3089

APPENDIX A. EMPIRICAL STUDIES ON CORPORATE GOVERNANCE, FIRM VALUE, AND ESG CONTROVERSIES

No.	*Author(s)*	*Year*	*Publication*	*Specific aspect*
Category one: Corporate governance and firm value				
1	Antonczyk and Salzman	2014	*Applied Financial Economics*	Risk aversion and uncertainty avoidance
2	Durnev and Kim	2005	*Journal of Finance*	Stock market value
3	Chhaochharia and Laeven	2009	*Journal of Financial Intermediation*	Voluntary adoption of corporate governance mechanisms
4	Bruno and Claessens	2010	*Journal of Financial Intermediation*	Corporate governance mechanisms
5	Ammann, Oesch, and Schmid	2011	*Journal of Empirical Finance*	Corporate governance practices
6	Klapper and Love	2004	*Journal of Corporate Finance*	Firm-level corporate governance practices
7	Benson, Davidson, Wang, and Worrell	2011	*Financial Management*	Stakeholder theory (expected stakeholder management)
8	Carter, Simkins, and Simpson	2003	*The Financial Review*	Board diversity
9	Ionescu	2012	*Economics, Management, and Financial Markets*	Quality of corporate governance
10	Jo and Harjoto	2011	*Journal of Business Ethics*	Corporate social responsibility
11	Kranthi, Ahmed, and Singh	2022	*Journal of Corporate Governance*	Corporate social responsibility and organizational identification
12	Lee and Lee	2009	*Review of Pacific Basin Financial Markets and Policies*	Cash holdings
13	Monks	2001	*Corporate Governance: An International Review*	Corporate governance structure
14	Renders and Gaeremynck	2012	*Corporate Governance: An International Review*	Principal-agency conflicts
Category two: ESG controversies and firm value				
1	Aouadi and Marsat	2018	*Journal of Business Ethics*	Interaction with the corporate social performance score
2	de Abreu Passos and de Campos-Rasera	2024	*Brazil Business Review*	Longitudinal data from multiple countries
3	Brinette, Sonmez, and Tournus	2024	*IEEE Transactions on Engineering Management*	ESG controversies and firm value
4	Rahmadini and Hartanti	2025	*Jurnal Dinamika Akuntansi*	ESG performance and financial performance, the moderating role of ESG controversies

APPENDIX B. GOVERNANCE PILLAR ATTRIBUTES INCLUDED IN THE SECOND CORPORATE GOVERNANCE INDEX (*CORPGOVESG*)

No.	*Attribute*	*Coding*
1	Audit board committee	Coded 1 if the audit commit exists and 0 otherwise.
2	Audit committee non-executive members	The proportion of non-executive members in the audit committee.
3	CEO board member	Coded 1 if the CEO is a board member and 0 otherwise.
4	Chairman is ex-CEO	Coded 1 is the chair of the board is an ex-CEO, and 0 otherwise.
5	Compensation board committee	Coded 1 if a compensation committee exists and 0 otherwise.
6	Compensation committee non-executive members	The proportion of non-executive members in the compensation committee.
7	Corporate governance board committee	Coded 1 if a corporate governance committee exists and 0 otherwise.
8	Golden parachutes	Coded 1 if the directors have golden parachutes and 0 otherwise.
9	Limitation of director liability	Coded 0 if the directors have limited liability and 1 otherwise.
10	Limitations on the removal of directors	Coded 1 if there are limitations on the removal of directors and 0 otherwise.
11	Limited shareholder rights to call meetings	Coded 1 if there are limited shareholder rights to call meetings, and 0 otherwise.
12	Nomination board committee	Coded 1 if a nomination board committee exists and 0 otherwise.
13	Pre-emptive rights	Coded 1 if the shareholder has pre-emptive rights and 0 otherwise.
14	Shareholder approval of significant transactions	Coded 1 if the shareholders have to approve significant transactions and 0 otherwise.
15	Supermajority vote requirement	Coded 1 if a supermajority vote requirement exists and 0 otherwise.
16	Unlimited authorized capital or blank check	Coded 0 if there is unlimited authorized capital or blank checks, and 1 otherwise.
17	Written consent requirements	Coded 1 if there are written consent requirements and 0 otherwise.

APPENDIX C. DEFINITION OF VARIABLES

Variable	*Definition*
ESGCONTROV	The ESG controversy scores from LSEG are multiplied by -1.
CORPGOVINDEX_2	The corporate governance index is constructed using factor analysis and comprises board size, board gender diversity, CEO duality, average director tenure, and proportion of independent directors.
CORPGOVESG	The corporate governance index is constructed using factor analysis and comprises all 17 attributes listed in Section 4 of the study.
CORPGOVINDEX_ALL	Corporate governance index constructed using factor analysis and comprising all the 22 attributes included in *CORPGOVESG* and *CORPGOVINDEX_2*.
ENVIRONCONTROV	A dummy variable coded 1 if the ESG controversies are environmental-related controversies.
ADA	The modified Jones model of abnormal discretionary accruals.
CZ2	A comprehensive measure of real activities management, as per Cohen and Zarowin (2010) measured by the sum of negative abnormal cash flows and negative abnormal discretionary expenses.
LEV	The leverage is measured by the ratio of total debt scaled by total equity.
ROA	The ratio of net income before extraordinary items scaled by total assets.
RD	Research and development input is measured by R&D expenditure scaled by sales.
SIZE	The firm size is measured by the natural logarithm of market value (Closing price × Outstanding shares).
GROWTH	Ratio of market value scaled by book value of assets.
INDUSTRY	Industry dummy variables represent the industry's fixed effects. Industries are classified according to the Fama and French categories.
YEAR	Year dummy variables represent the time-related fixed effects.
Tobin's Q	Proxy for firm value is defined as the sum of the market value of equity and total debt, scaled by total assets.