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Review Article

Influence of Corporate Sustainability on Ownership Structure: Empirical Evidence from India

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Abstract

Background: In recent years, shareholders prefer sustainability as a tool for their investment decisions. It has become mandatory for most Indian firms to disclose sustainability practices and publish Sustainability Reports for large companies, as per market capitalisation. Past research shows that corporate sustainability practices are likely to influence profitability positively. On the other hand, ownership structure is one of the key internal governance mechanisms widely considered to mitigate governance problems of firms and impact profitability. **Objectives:** Against this backdrop, the present study aims to examine the influence of sustainability on the ownership structure of Indian listed companies. **Methods:** The final sample consists of 214 publicly traded companies from the population of the S&P BSE 500 index, and the study spans a period of seven years, from 2015–16 to 2021–22. Roodman's system of Generalized Method of Moments (GMM) estimator is used to analyse the data. **Results:** The results reveal that the composite Environmental, Social, and Governance (ESG) score is negatively associated with foreign ownership while positively associated with institutional and government ownership. It reflects that more institutional and government investments can be attracted by firms having strong sustainability performance. Conversely, foreign investors of the firms do not prefer investments towards sustainability, maybe due to fear of losing short-term gains. The impact of the scores of separate ESG pillars on ownership is also measured. **Conclusion:** The outcomes can encourage companies to perform sustainability practices to attract more domestic investments. Lastly, some valuable insights are elaborated in this study that policymakers and regulatory authorities can consider.

Keywords: *Corporate Sustainability; ESG Performance; Foreign Ownership; India; Ownership Structure*

Introduction

In the last few decades, the requirements of corporate disclosure shifted from the financial information landscape to the non-financial information landscape. Nowadays, various stakeholders prefer corporates not only with good financial performance but also with a good sustainability background. Similarly, corporates around the world perform their activities in such a manner that these activities are favorable towards sustainable practices. The companies communicate their actions using a variety of channels, including the ESG framework and Global Reporting Initiatives (GRIs), as well as sustainability reports (Fahad & Nidheesh, 2020). Developed countries, along with the developing ones, are now much more concerned about ESG disclosure. For instance, India's provision for the Business Responsibility and Sustainability Report (BRSR) has become compulsory for some listed companies. Conversely,

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nowadays, Indian firms' corporate governance, investor trust, and strategic agility are all determined by their ownership structure. Promoters, domestic institutional investors, and foreign investors influence the way businesses manage risks, adjust to changing global market standards, and strike a balance between long-term development and minority shareholders' rights.

On the other hand, a company's sustainability initiatives may increase their initial cost in the short run, but they also meet stakeholders' needs in the long run (Yadav, 2020). Responsible investors pay much attention to the companies with good sustainability practices. Since the COVID-19 outbreak, investors have prioritized ESG as a key investment criterion (SEBI, 2021). The relationship between corporate sustainability and ownership structure has been examined with respect to different developed nations. Nevertheless, the result cannot be generalized for India, because, depending upon the ownership structure, Indian enterprises may have various kinds of disclosures (Sahasranamam *et al*., 2019). The sustainability reporting survey by KPMG (2020) showed that 98% of the Indian corporates focused on sustainability reporting. It leaves a reason to analyze the association between ESG or sustainability performance and ownership structure in India. Hence, the current study focuses on three major types of ownership, namely Foreign Ownership (FO), Institutional Ownership (IO), and Government Ownership (GO).

The rest of the paper is structured as follows: Section II reviews the relevant literature and formulates hypotheses. Section III states the objectives of the study. Section IV addresses the data and methodology used in the study, followed by the data analysis and discussion in section V. Finally, the last section displays the conclusion and implication of the paper.

Literature Review

Theoretical Perspective

The relationship between corporate sustainability and ownership is governed primarily by Agency Theory, Stakeholders' Theory, Legitimacy Theory, and Signalling Theory. According to the agency theory, independent monitoring by the active ownership may assist in aligning interests, reducing managerial opportunism, and driving businesses toward transparent environmental, social, and governance standards that safeguard the long-term value of the firm. The stakeholder theory posits that corporations have obligations to a wide range of stakeholders (workers, communities, the environment, and consumers) rather than only to shareholders. Diverse ownership structures (such as governmental or institutional shareholders) use their influence to push corporations to prioritize different stakeholder interests. According to legitimacy theory, companies must adhere to the common social norms and values of their communities. State or public ownership typically compounds this pressure, forcing strong sustainability disclosure to ensure a continuous 'license to operate' from society. According to signalling theory, owners utilize sustainability disclosures as a reliable communication technique to minimize information asymmetry and draw in external funding, especially from institutional or foreign investors.

Foreign Ownership and Sustainability Practices

Foreign shareholders play a vital role in promoting transparency as well as confidence among firms and stakeholders (Al Amosh, 2022). The existence of foreign ownership adds legitimacy to a firm's actions (Alkhawaldeh, 2012). However, literature suggests a mixed relationship between sustainable practices and foreign ownership. Some studies found a positive link between a corporate's voluntary disclosures and foreign ownership (Barako *et al*., 2006). In China, a study suggested that foreign ownership has a favorable connection with the Corporate Social Responsibility (CSR) disclosures (Guo & Zheng, 2021). Various studies showed the importance of foreign ownership in encouraging businesses to report and participate in sustainability initiatives (Adeniyi & Adebayo, 2018; Rustam *et al*., 2019). In contrast, it appeared that there was a negative link between foreign ownership and CSR disclosure in Jordan (Abu Qa'dan & Suwaidan, 2019). A study also revealed an adverse relationship between foreign ownership and information disclosure (Saini & Singhania, 2019). As no clear direction can be found, the hypothesis can be formulated as below:

H_1: Corporate sustainability performance has a significant influence on foreign ownership among Indian listed companies.

Institutional Ownership and Sustainability Practices

An institutional investor invests on a huge scale. Usually, it is a general business organization or insurance company, mutual fund, hedge fund, pension fund, etc. This group of investors typically purchases and sells extremely big chunks of securities. A mixed empirical connection between institutional investors and ESG performance is observed in a multitude of literature. Dimson *et al*. (2015) found that institutional investors' actions boost ESG activity of target firms. A study showed that institutional investors preferred a high ESG performance (Dyck *et al*., 2019). Institutional ownership and ESG performance were shown to be significantly and positively correlated (Wang *et al*., 2023). On the contrary, literature showed that improvement in ESG ratings resulted in a decline in institutional ownership (Gillan *et al*., 2010). Institutional ownership was shown to have a negative correlation with CSR in an article by Borghesi *et al*. (2014). As we have failed to find any clear relationship between these two areas, the hypothesis can be formulated as below:

H_2: Sustainability practices have a significant influence on institutional ownership.

Government Ownership and Sustainability Practices

Governments invest in shares of different companies to ensure financial support and promote economic development. Government ownership increases business responsibility and transparency, which strengthens credibility (Monk, 2009). Various literatures suggest a positive connection between government ownership and sustainability practices. According to Khalid *et al*. (2021), government-owned companies, particularly from developing nations, participate more actively in ESG activities than other companies do. Businesses with state ownership have access to additional resources, which gives them greater authority and improves corporate governance by strengthening internal control and accountability (Can *et al*., 2021). State ownership considerably enhanced the quality of sustainability disclosures, according to a study (Rudyanto, 2017). In contrast, research found that government ownership had an adverse effect on disclosure levels (Al-Janadi *et al*., 2016). Here, no concrete results can be found about the exact direction of the relationship between these two areas; hence, the hypothesis can be formulated as below:

H_3: Government ownership is impacted by sustainability practices significantly.

The above literature review shows a mixed relationship between ownership and corporate sustainability. It also reveals that this association needs to be analyzed more precisely from the perspective of a developing nation like India. The dynamic nature of the ownership structure reflects the need for applying the dynamic panel data regression method for empirical testing. These identifiable research gaps motivate to conduct the present study.

Study Objective

The objective of the study is to examine the association between corporate sustainability performance and different ownership structures, namely foreign ownership, institutional ownership, and government ownership, among Indian listed companies. The study further investigates whether composite ESG performance and individual ESG dimensions influence these ownership categories.

Methodology

Data and Variables

The study considers the S&P BSE 500 index for empirical analysis. The period of study is seven years from 2015-16 to 2021-22. The final sample size of 214 companies from the index is reached by applying a few filters. Firstly, the companies with incomplete data regarding the main dependent and explanatory variables for the study period are deleted to obtain a balanced panel dataset. Secondly, firms that are registered before 1st April 2015 are not part of the final sample. Lastly, the companies that discontinued

their operation during the study period are also eliminated. Thus, the balanced panel comprises 1498 firm-year observations. Data regarding the ownership structure and other financial metrics are retrieved from the Capitaline database, whereas the ESG data are collected from the Bloomberg database. In India, the expenditure on CSR became mandatory for most of the companies from FY 2014-15. Therefore, the study period of the present paper starts from 2015-16 to capture the impact of sustainable practices more precisely. Due to some regulatory barriers by SEBI, ESG data from the Bloomberg database beyond March 2022 could not be included in this study (SEBI, 2021).

The study uses three types of ownership variables, viz., FO, IO, and GO. In the case of the explanatory variables of the study, the one-year lag of the composite and individual sustainable scores is considered because the scores of a particular financial year are generally published at the middle of the succeeding financial year. Therefore, the influence of a particular year's sustainability score may be reflected on the ownership structure in the succeeding year. The research model includes four control variables. Table 1 shows a detailed discussion about the variables.

Estimation Method

Generally, panel data regression models are of two types: (a) static panel and (b) dynamic panel. However, in a static panel, various issues like heteroscedasticity, autocorrelation, cross-sectional dependency, and endogeneity arise. These issues can be handled by using the dynamic panel data model or Generalized Method of Moments (GMM) estimators, which are usually designed for short panels. Roodman's (2009) system GMM estimator is used in this study to analyze the data, and its equations are stated as follows:

Equations Estimating the Impact of Overall Sustainability Performance on Ownership Structure

$$FO_{i,t} = \alpha_0 + \alpha_1 FO_{i,t-1} + \alpha_2 ESG_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$IO_{i,t} = \alpha_0 + \alpha_1 IO_{i,t-1} + \alpha_2 ESG_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (2)$$

$$GO_{i,t} = \alpha_0 + \alpha_1 GO_{i,t-1} + \alpha_2 ESG_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (3)$$

Equations Estimating the Impact of Individual Sustainability Performance Metrics on Ownership Structure

$$FO_{i,t} = \alpha_0 + \alpha_1 FO_{i,t-1} + \alpha_2 E_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (4)$$

$$FO_{i,t} = \alpha_0 + \alpha_1 FO_{i,t-1} + \alpha_2 S_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (5)$$

$$FO_{i,t} = \alpha_0 + \alpha_1 FO_{i,t-1} + \alpha_2 G_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (6)$$

$$IO_{i,t} = \alpha_0 + \alpha_1 IO_{i,t-1} + \alpha_2 E_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (7)$$

$$IO_{i,t} = \alpha_0 + \alpha_1 IO_{i,t-1} + \alpha_2 S_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (8)$$

$$IO_{i,t} = \alpha_0 + \alpha_1 IO_{i,t-1} + \alpha_2 G_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (9)$$

$$GO_{i,t} = \alpha_0 + \alpha_1 GO_{i,t-1} + \alpha_2 E_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (10)$$

$$GO_{i,t} = \alpha_0 + \alpha_1 GO_{i,t-1} + \alpha_2 S_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (11)$$

$$GO_{i,t} = \alpha_0 + \alpha_1 GO_{i,t-1} + \alpha_2 G_{i,t-1} + \sum \alpha_j ControlVariables_{i,t} + \varepsilon_{i,t} \quad (12)$$

Table 1: Variable Description

Type		Descriptions
Dependent Variables	FO	Percentage of shares held by foreign shareholders out of the total shares.
	IO	Percentage of shares held by domestic institutional shareholders out of the total shares.
	GO	Percentage of shares held by central or state government(s) of India out of the total shares.
Explanatory Variables	$ESG_{(t-1)}$	One year lag of composite ESG score.

	$E_{(t-1)}$	One year lag of Environmental score.
	$S_{(t-1)}$	One year lag of Social score.
	$G_{(t-1)}$	One year lag of Governance score.
Control Variables	AGE	Age of a firm from the year of its incorporation.
	PER	Financial Performance measured by Return on Net Worth.
	LEV	Financial leverage measured by debt equity ratio.
	SIZE	Natural log of the total asset of a firm.

Results and Discussion

Descriptive Statistics

Table 2: Descriptive Statistics

Variable	Number of Observations	Mean	Standard Deviations	Minimum Value	Maximum Value
FO	1,498	18.57	13.87	0	78.88
IO	1,498	12.15	8.22	0	48.33
GO	1,498	0.45	2.61	0	29.59
$ESG_{(t-1)}$	1,284	37.53	10.42	18.24	76.14
$E_{(t-1)}$	1,284	17.03	19.13	0	77.29
$S_{(t-1)}$	1,284	23.30	11.59	0	70.04
$G_{(t-1)}$	1,284	78.22	7.98	27.15	98.61
AGE	1,498	3.70	0.55	2.08	5.07
PER	1,498	14.70	12.53	-32.44	101.24
LEV	1,498	0.66	1.58	-0.13	23.14
SIZE	1,498	9.25	1.51	5.61	13.78

Table 2 reports the descriptive statistics of the variables. FO, IO, and GO have a mean value of 18.57%, 12.15%, and 0.45%, respectively, with a standard deviation of 13.87, 8.22, and 2.61, respectively. Further, the maximum and minimum values of the FO, IO, and GO range between 78.88% and 0, 48.33% to 0, and 29.59% to 0, respectively. Therefore, it can be observed that out of the three types of owners, the foreign owners hold most of the shares in the sample firms, followed by the institutional owners and the government owners. The table also demonstrates that ESG(t-1), E(t-1), S(t-1), and G(t-1) have a mean value of 37.53%, 17.03%, 23.30%, and 78.22%, respectively, with standard deviations of 10.42, 19.13, 11.59, and 7.98. It inferences that the average sustainability performance of the companies is low, and out of the three individual metrics, governance performance is superior, followed by social and environmental performances

Pairwise Correlation

Table 3: Pairwise Correlations

Variables	FO	IO	GO	$ESG_{(t-1)}$	$E_{(t-1)}$	$S_{(t-1)}$	$G_{(t-1)}$	AGE	PER	LEV	SIZE
FO	1.000										
IO	0.091*	1.000									
	(0.000)										
GO	-0.043	-0.032	1.000								
	(0.097)	(0.211)									
$ESG_{(t-1)}$	0.172*	0.182*	0.176*	1.000							
	(0.000)	(0.000)	(0.000)								
$E_{(t-1)}$	0.107*	0.162*	0.180*	0.872*	1.000						
	(0.000)	(0.000)	(0.000)	(0.000)							
$S_{(t-1)}$	0.126*	0.148*	0.173*	0.795*	0.708*	1.000					
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)						
$G_{(t-1)}$	0.234*	0.111*	0.026	0.547*	0.384*	0.313*	1.000				

	(0.000)	(0.000)	(0.360)	(0.000)	(0.000)	(0.000)					
AGE	-0.242*	0.178*	-0.060*	0.002	0.058*	0.001	-0.133*	1.000			
	(0.000)	(0.000)	(0.021)	(0.939)	(0.037)	(0.960)	(0.000)				
PER	0.013	-0.027	-0.003	0.070*	0.095*	0.043	0.078*	-0.016	1.000		
	(0.626)	(0.290)	(0.913)	(0.012)	(0.001)	(0.122)	(0.005)	(0.527)			
LEV	0.102*	-0.046	-0.044	-0.041	-0.126*	0.027	0.002	-0.145*	-0.047	1.000	
	(0.000)	(0.075)	(0.090)	(0.139)	(0.000)	(0.340)	(0.947)	(0.000)	(0.071)		
SIZE	0.222*	0.213*	0.066*	0.452*	0.402*	0.444*	0.079*	0.028	-0.126*	0.302*	1.000
	(0.000)	(0.000)	(0.010)	(0.000)	(0.000)	(0.000)	(0.004)	(0.286)	(0.000)	(0.000)	

**Shows significance at p<0.05*

Table 3 demonstrates the pairwise correlation matrix. ESG(t-1), E(t-1), and S(t-1) have a significant positive correlation with FO, IO, and GO. But G(t-1) is positive and significantly correlated only with FO and IO but an insignificant correlation with GO. No serious multicollinearity issues are revealed in this matrix. Further, regression analysis is conducted in the next section for more specific results.

Regression Analysis

The influence of the composite ESG score on the three ownership structures is shown in Table 4. Here it is shown that FO is negatively and significantly impacted by ESG(t-1). It implies that the selected Indian firms with good sustainability scores cannot attract foreign investors. A possible reason might be that most of the foreign investors prefer short-term financial gains as compared to long-term ESG goals (Bena *et al*., 2017). Conversely, the effect of ESG(t-1) on IO is significantly positive. It suggests that domestic institutional investors are attracted towards the listed Indian companies having strong sustainability performance (Wang *et al*., 2023). Similarly, the ESG(t-1) affects positively and significantly the GO. Therefore, improvement in the sustainability performance of a company leaves a positive signal to the government (Doshi *et al*., 2023). It leads to a rise in government support and funding towards these Indian companies. Hence, the research hypotheses are accepted.

Diagnostic tests are rarely performed to validate the Roodman's GMM model of estimation. The insignificant p-values of the Hansen test along with the AR(2) test demonstrate that the three models are free from endogeneity and autocorrelation issues, respectively. Additionally, the strong influence of the one-year lag of the dependent variable on the corresponding dependent variables demonstrates the dynamic character of the study's equations. Again, the number of companies participating in the research outnumbers the number of instruments. These results suggest the validity of the three research models.

Following prior empirical studies in corporate governance and sustainability research, the 10% significance level is considered as marginal statistical significance and is reported to capture potentially meaningful relationships in the presence of complex firm-level factors. However, findings significant only at this level are interpreted with caution.

Table 4: Regression Analysis

Variables	Foreign Ownership (Model 1)	Institutional Ownership (Model 2)	Government Ownership (Model 3)
FO_{t-1}	0.978*** (0.007)		
IO_{t-1}		0.859*** (0.017)	
GO_{t-1}			0.983*** (0.003)
$ESG_{(t-1)}$	-0.032*** (0.005)	0.019*** (0.007)	0.001*** (0.00)
AGE	0.10 (0.072)	-0.141 (0.14)	-0.007*** (0.002)
PER	0.014*** (0.003)	-0.008* (0.004)	0.001*** (0.00)
LEV	0.009 (0.02)	-0.032 (0.024)	-0.003*** (0.001)
SIZE	0.003 (0.039)	0.139** (0.055)	-0.001 (0.001)
Time Effect	Yes	Yes	Yes
Constant	-0.078 (0.392)	1.286** (0.625)	-0.029** (0.013)
Hansen test	126.45 (0.135)	105.33 (0.608)	60.24 (1.000)

(Prob> chi2)			
AR (2) ***P value***	-0.10 (0.921)	0.43 (0.670)	0.71 (0.478)
Number of Firms	214	214	214
Number of Instruments	122	122	122
Number of Observations	1284	1284	1284

****p<0.01, **p<0.05, *p<0.10 (marginal significance); standard errors are presented in parentheses*

In Table 5, the influence of the individual ESG scores on the ownership variables is measured. It shows that FO is negatively and significantly influenced by the E(t-1). On the other hand, the S(t-1) and G(t-1) have no significant effect on the FO. However, the E(t-1) and G(t-1) have a significantly positive influence, but S(t-1) has insignificant influence on IO. Additionally, E(t-1), S(t-1), and G(t-1) have insignificant influence on GO. Here the absence of endogeneity and autocorrelation issues can be established as the test statistic values of the Hansen test and AR(2) test are insignificant. The numbers of instruments are not more than the number of groups. Furthermore, the significant influence of the one-year lag values of dependent variables on their corresponding dependent variables suggests that the dataset is dynamic. As a result, the research models are significantly more suitable for the dynamic panel data model.

Table 5: Additional Analysis

Variables	**Foreign Ownership**			**Institutional Ownership**			**Government Ownership**		
	Model 4	**Model 5**	**Model 6**	**Model 7**	**Model 8**	**Model 9**	**Model 10**	**Model 11**	**Model 12**
FO_{t-1}	0.975*** (0.007)	0.963*** (0.007)	0.964*** (0.007)	0.871*** (0.018)	0.852*** (0.018)	0.901*** (0.017)	0.983*** (0.003)	0.978*** (0.003)	0.961*** (0.005)
IO_{t-1}									
GO_{t-1}									
$E_{(t-1)}$	-0.016*** (0.003)			0.008** (0.003)			0.00005 (0.00)		
$S_{(t-1)}$		-0.009 (0.006)			-0.004 (0.006)			0.00012 (0.00)	
$G_{(t-1)}$			-0.004 (0.006)			0.032*** (0.008)			0.0001 (0.00)
AGE	0.106 (0.072)	0.097 (0.076)	0.069 (0.072)	-0.184 (0.141)	-0.068 (0.146)	-0.196 (0.139)	-0.006*** (0.002)	-0.006** (0.002)	-0.008 (0.002)
PER	0.018*** (0.003)	0.014*** (0.003)	0.014*** (0.003)	-0.008* (0.005)	-0.008* (0.005)	-0.008* (0.004)	0.001*** (0.00)	0.001*** (0.00)	0.001 (0.00)
LEV	-0.006 (0.022)	0.043** (0.02)	0.072*** (0.018)	-0.023 (0.025)	-0.087*** (0.026)	-0.017 (0.022)	-0.004*** (0.001)	-0.004*** (0.001)	-0.005 (0.001)
SIZE	-0.01 (0.042)	-0.028 (0.045)	-0.095*** (0.034)	0.144*** (0.054)	0.251*** (0.061)	0.092** (0.045)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)
Time Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.942** (0.39)	-0.598 (0.397)	0.138 (0.698)	1.87*** (0.571)	1.026* (0.621)	-0.412 (0.894)	-0.023** (0.009**)**	-0.026** (0.01)	-0.037 (0.017)
Hansen test *(Prob > chi2)*	133.66 (0.062)	120.99 (0.223)	135.95 (0.05)	110.73 (0.463)	93.66 (0.868)	101.70 (0.702)	76.43 (0.994)	71.60 (0.998)	78.29 (0.990)
AR (2) *P value*	-0.09 (0.931)	-0.10 (0.924)	-0.10 (0.923)	0.43 (0.669)	0.42 (0.677)	0.42 (0.674)	1.01 (0.313)	1.01 (0.313)	1.01 (0.313)
Number of Firms	214	214	214	214	214	214	214	214	214

Number of Instruments	122	122	122	122	122	122	122	122	122
Number of Observations	1284	1284	1284	1284	1284	1284	1284	1284	1284

****p<0.01, **p<0.05, *p<0.1; standard errors are presented in parentheses*

The present study examines the association between corporate sustainability performance and ownership structure of India's listed firms for the period from 2015–16 to 2021–22. The correlation analysis indicates a positive association between ESG performance and ownership structure; however, the regression results provide differentiated evidence across ownership categories.

The negative association between ESG performance and foreign ownership is consistent with some previous studies that reported an adverse relationship between foreign ownership and sustainability-related disclosures (Abu Qa'dan & Suwaidan, 2019; Saini & Singhania, 2019). Although foreign investors are often considered important promoters of sustainability practices (Guo & Zheng, 2021; Rustam *et al*., 2019), the present finding suggests that some foreign investors in the Indian context may prioritize short-term financial outcomes over long-term sustainability objectives. This may explain why higher ESG performance is not associated with increased foreign ownership.

In contrast, the positive association between ESG performance and institutional ownership supports earlier findings that institutional investors actively consider sustainability information while making investment decisions (Dyck *et al*., 2019; Wang *et al*., 2023). Strong ESG performance may signal better governance practices, lower risk exposure, and improved long-term value creation, which can encourage institutional participation.

Similarly, the positive association between composite ESG performance and government ownership is consistent with previous studies highlighting the role of government ownership in promoting responsible corporate practices and sustainability disclosure (Khalid *et al*., 2021; Rudyanto, 2017). However, the insignificant relationship between individual ESG pillars and government ownership indicates that government investors may focus more on overall sustainability performance rather than separate environmental, social, or governance dimensions.

Overall, the findings demonstrate that the relationship between sustainability performance and ownership structure varies across investor categories. This highlights the importance of considering ownership heterogeneity while examining ESG-related investment preferences in emerging markets such as India.

Limitations

The article suffers from few limitations. It only considers publicly listed companies from India. The period of study is closed at 2021-22 as because of the unavailability of Bloomberg ESG score for the subsequent periods of the sample companies due to regulatory barriers. Only three ownership variables are considered in this paper.

Future Scope

Future studies can be conducted based on public as well as private companies from developing and underdeveloped nations. Another research can be conducted when the data will be available for the period beyond 2021-22 to capture more recent trends in this relationship. In further studies, other factors of ownership as well as of sustainability can be considered. A casual relationship can be analyzed between the sustainability and ownership using other econometric techniques.

Conclusion

The results of the study reveal that the association between composite ESG scores and government ownership is weaker compared with institutional ownership. Additionally, the impact of the individual sustainability performances on the ownership structure is measured. It shows that out of the three pillars, the negative impact of environmental performance on foreign ownership is statistically

significant. It reflects that foreign investors in India do not consider the environmentally friendly companies to invest. Moreover, the institutional ownership is influenced by environmental and governance scores positively and significantly. It signifies that while making investment preferences in India, the institutional investors consider the environmental and governance performance aspects. Lastly, no significant influence of the three pillars of sustainability performance on government ownership can be observed. It reveals that instead of separate sustainability performance pillars, governments prefer the combined sustainability performance score of a company for investing.

Implications of the Study

Corporate firms in India will be more encouraged to disclose more sustainable information for their stakeholders. Very few studies empirically examined the association of these two areas. Thus, this study will add valuable insights into the body of literature. Additionally, the study will notify the regulatory bodies in India about the consequences of their regulatory framework regarding corporate sustainability. Again, the research findings will help these regulatory bodies to encourage more companies to disclose their non-financial information mandatorily. Again, the policymakers may provide incentives to the companies having greater disclosure practices to influence other companies to do so. Moreover, as the study shows the adverse influence of ESG score on foreign investors, the policymakers must identify the actual root causes of it.

CRediT Authorship Contribution Statement

S.M. (Sougata Mondal): Conceptualization, methodology, investigation, data curation, formal analysis, and writing-original draft. S.M. (Sanjib Mitra): Writing-review & editing, visualization, supervision. All the authors reviewed the manuscript and approved the final version.

AI Assistance Declaration

During the preparation of this work, the authors used AI-based language assistance to improve grammar, clarity, organization, and response wording to reviewers' comments. After using this tool, the authors reviewed and edited the content as needed and takes full responsibility for the accuracy, interpretation, and integrity of the content for the publication.

Conflict of Interest

The authors declare that they have no competing interests.

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