An empirical study of the relationship between the busy outside directors and indicators of ESG performance

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ABSTRACT

In this article, we analyse whether the management structure of a company plays a role in the sustainability of companies. More specifically, we study the impact of occupied outside directors, outside directors sitting on several boards of directors, on the environmental, social and governance (ESG) performance of the company. We collect information about board characteristics, information about the board and management from MSCI ESG Research and financial information from Compustat. The study collects data based on panel data, which ranges from 2014 to 2020. The final sample consists of 550 US companies over a five-year period and contains 3850 firm-year observations. The study finds a positive relationship between busy outside directors and ESG performance. Busy outside directors have a positive impact not only on the overall ESG score, but also on individual ESG components. The environmental score is most affected by busy external directors, while the governance score appears to be little affected. Contrary to the theory that busy outside directors are overly engaged and degrade the fixed value, the findings support the theory that busy outside directors improve a company's sustainability performance because of their engagement, experience and the ESG performance.

Keywords:
Board of directors
Busy directors
ESG performance

1. Introduction

Interest and debate about integrating Environmental, Social, and Governance (ESG) factors into strategic business decisions is keen and continues to grow. In recent years, environmental and social sustainability has been raised as a major concern in many business environments. Companies face increasing pressure from stakeholders to participate in ESG factors. ESG's concerns have captured board discussions of political activists, lobbyists, regulators, consumers, proxy advisors, major institutional investors, and academia (Salhi, 2021; Saleh et al., 2020). Their investment decisions, which are nearly double the percentage reached in 2013. How companies respond to sustainability issues raised by stakeholders and shareholders, and how corporate governance structure plays a role in integrating sustainability issues into decision-making, raise new research questions. Participation in the ESG requires the participation of the Board of Directors. Good corporate governance, centered on the board of directors, protects the appropriate interests of the company's stakeholders. Hussain et al. (2018) argue that good corporate governance uses CSR to improve the relationship between a company and its stakeholders. Managers' interactions with other companies can play an important role in generating knowledge about ESG strategies, as each company may address this concern differently. Leaders on multiple boards of directors, such as Ortiz-de-Mandojana et al. (2016) provide information that includes various reflections on ESG and strategic ideas based on their experiences with other companies. Studies such as Jizi, (2017), Bae et al. (2018) and Nassit, (2019) examine the relationship between the composition of the board of directors and the company's sustainability practices. Here, we follow this line of research by analyzing the commitment of external leaders and the performance of the ESG. To do this, we use a panel dataset of more than 550 US companies over a seven-year period to analyze the relationship between board activity and ESG performance.

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We also examine other characteristics of the board of directors and their relationship to environmental and corporate governance; In particular, the size of the board of directors, independent directors, internal directors, duplication of CEOs, and diversity on the board. Our results indicate that many of the council's activity targets have a positive impact on GSS (Fredriksson et al., 2020). Board activity may also be subject to oversight by other factors in the Board of Directors in connection with its impact on the ESG. Fourth, the measures of management activity here differ from previous studies. Studies such as Bolourian et al. (2020) and Aguilera et al. (2021) did not specifically state whether the intervening officials were internal or external officials. In our study, we distinguish between busy internal and external directors. This is important because previous studies such as Treffers and Lippert (2020) show that external managers have a lower potential for conflicts of interest and are seen as a tool that connects external stakeholders to companies. The number of board seats occupied by an outside director has been used to represent the reputation of the director in the external labor market (Kanojia et al., 2020). These outside directors are very busy with development performance. sustainable, therefore, our study fills this gap in the literature.

2. Literature review and hypothesis development

2.1 Corporate governance and sustainability performance (ESG)

While our focus here is on participating outside directors, we also note the importance of other board characteristics in the ESG space. In recent years, companies have come under increasing pressure from stakeholders to adopt proactive ESG strategies. These stakeholders include creditors, customers, suppliers, regulators, employees and institutional investors. Understanding the sustainability of companies and integrating it into their strategic decisions is a difficult task for companies. According to the results of the Public Enterprise Governance Survey, 2018-2019, integrating ESG into company strategy is not easy for conscientious CEOs and boards of directors. Of the nearly 150 members who responded in 2018, only 22% said their corporate governance and environmental and social (ESG) practices are directly related to company strategy, and half said that they would like their board of directors to link ESG to company strategy. Corporate sustainability practices are also receiving increasing attention from academics. How companies react to sustainability issues and how the corporate governance structure plays a role in integrating sustainability issues into their decision-making process have become very important research questions to consider. Against the background of growing concerns about corporate sustainability issues, corporate governance, particularly that of board members, which are essential elements of corporate governance, plays an important role. Corporate governance includes all relationships between a company's management, its board of directors, its shareholders and other stakeholders. Both researchers and practitioners agree that a company's board of directors plays a key role in how ESG is incorporated into business strategies. In recent Business Roundtable meetings, the former Vanguard CEO for example discussed ESG concerns and noted that “it is important to ensure that there is a place for management to oversee ESG concerns, whether it is a steering committee, an ESG committee, or elsewhere in the board structure.”

In the sustainability literature, board characteristics such as board size, diversity, director ownership, board independence, and CEO duplication are used to measure corporate governance effectiveness. For example, Gerged et al. (2020) found that firm size and environmental information are positively correlated. Dwekat et al. (2020) found that board independence, board size, and board audit committees correlate with CSR disclosure. Fernandez-Timbrano and Tigrina-Gate (2020) show that board independence and diversity correlate with a company's environmental performance. Garcia-Sanchez et al. (2020) indicates that board independence, board size, and CEO transcription are linked to social and environmental information. Rao, & Tilt, (2020) suggest that board independence, board size, and the number of women on board correlate positively with environmental information. Cuadrado Ballesteros et al. (2017) show that board size and independence as well as the proportion of female board members correlate with environmental strengths and concerns. Al-Sayegh and others. (2020) examines the relationship between business management and sustainability. They found that boards with a higher proportion of independent directors positively affect environmental and social performance. These findings are in line with the agency and stakeholder theory that independent directors are responsible for a larger group of stakeholders and that independent directors perform well. It also shows that duplication of directors has a negative impact on environmental performance, and this conclusion is in line with agency theory, because when the CEO is also the chairman of the board, the oversight process may not be effective. Al-Sayegh et al. (2020) also found that council diversity (measured by the proportion of women in council) improves the social dimensions of sustainability, but council diversity does not significantly affect environmental performance. They also found a significant relationship between frequency of board meetings and social performance. Nassetti (2019) examines whether board composition affects the sustainability outcomes of a company. He revealed that companies with greater diversity in the board of directors and the separation between the roles of the chairman and CEO show higher sustainability performance. However, it has also been shown that more independent directors result in lower sustainability performance. Finally, Crido et al. (2019) examines the relationship between corporate governance and corporate sustainability by focusing on two key components of corporate governance structure: the board of directors and investor relations. Among their findings, the findings show that corporate sustainability appears to be positively correlated with the proportion of internal directors on the board of directors. Previous studies suggest that having independent directors is an essential mechanism for good corporate governance that can lead to better oversight, as more independent directors help reduce agency costs. Therefore, we include independent directors in our analysis. Board diversity as measured by the proportion of women on the board has been examined in the literature on corporate performance and social responsibility.
Cucari et al. (2018) argue that a board of directors made up of three or more departments is more concerned with environmental considerations. According to Uyar et al. (2021), higher CSR performance is associated with increased presence of women on the board of directors. Al-Sayegh et al. (2020) found that board diversity improves the social dimensions of sustainability (in line with stakeholder theory), but board diversity does not have a significant impact on environmental performance. Separating the roles of the president and CEO can improve the effectiveness of management accountability, reduce agency costs, and create a better business outcome. Additionally, non-executives may have a greater tendency to worry about stakeholders, which leads to better performance in the company's sustainability. However, the results in the literature are mixed. Velte & Stawinoga (2020) reported a positive CEO and CSR duality relationship based on environmental performance, CSR reports, and aggregated CSR scores. However, Al-Salihii (2021) found a negative relationship between CEO dichotomy and CSR measures. Together, the many characteristics of the board play a role in how decisions are made. It appears that several factors may explain some of the differences in the strength of the company's ESG practices over time. While focusing on busy external managers in this document, we note that it is likely the relationship between various factors, including busy external managers that helps explain how the company operates in the ESG area.

2.2. Busy leaders and corporate sustainability

According to Naciti, (2019), one of the most important components of corporate governance is an effective board of directors. Yang et al. (2021) argue that the market for executive positions is a great incentive for outside managers to develop their reputation as monitoring specialists. Fredrickson et al. (2021) provide evidence for the importance of reputation capital in the managers' market. Mace (1986) suggests that external board positions are viewed as valuable because they provide managers with prestige, visibility and business contacts. Several studies have also suggested that external directors, especially those who have nothing to do with the company apart from their positions on the board (external directors), play an important role in corporate governance (Chen et al. (2020)) that the number of board positions that Occupied by an external director is a determinant of a director’s reputation in the external labor market, and in the literature there are mixed results about the wisdom of holding multiple board positions and permanent performance, and Salih et al. (2020) show a positive relationship between service on many boards and permanent performance. The authors explain this as being consistent with reputation theory, and based on reputation theory, individuals have more board positions, higher quality leaders with more experience and competence, and board members perform their oversight duties more efficiently, which leads to more stringent oversight Managerial: Other studies tend to support this reputation theory, but like Mohapatra and Mishra (2021), find no link between service in many boards or initial and constant value. On the other hand, some studies argue that multiple periods can reduce the effectiveness of external managers as monitors of the company, which can negatively affect the company's performance. This is consistent with the view of obsession or obligation. Commitment theory predicts that too many seats outside the board can keep managers so busy that their ability to oversee management is compromised, reducing management oversight. This hypothesis, supported by Ferris, & Liao, (2019), viewed busy external managers as ineffective displays whose excessive responsibilities lead to distracting behaviors, which tend to undermine company performance. Consistent with agency theory, this view predicts that busy officials will not be good watch dogs and will not act in the best interests of agents. Previous studies of business results and multiple periods have used accounting (e.g., market for ratios, Q and Tobin's return on assets) and market metrics (return on equity) as measures of the company's performance. Other studies such as (Trinh et al. (2020)) focus on costs for debt, principal activity, business activity, and diversification.

Several recent studies examine management mergers and ESG activities. Eg. Valbuena-Hernandez and Ortiz-de-Mandojana (2021) examine the impact of executive management on a company's ability to adopt a proactive environmental strategy by studying US power plants. Using the theory of resource dependence, they argue that leading shutdowns (the number of connections closed with other companies and suppliers) have different probabilities that a company will adopt a proactive environmental strategy. From a resource dependency perspective, panels are primarily a tool for managing external dependencies and reducing uncertainty. Through boards of directors, the company has access to valuable resources. This is especially evident in the case of harbor locks. Managers use their information, experience and other sources of knowledge to help improve company decision making. Valbuena - Hernandez, & Ortiz- de - Mandojana (2021) analyzed the effect of phasing out on companies' environmental performance using US power plants. They found that fee development (the number of overlapping contacts with other companies) significantly affects the board's social relationship to capital and positively affects some business results, such as environmental performance. They show that leadership involvement is positively correlated with the company's environmental performance. Valbuena - Hernandez and Ortiz- de - Mandojana (2021) analyze the impact of managerial overlap in the same sector over the course of a year. In addition, they take into account both internal and external managers when calculating the number of overlapping connections to other companies. Aigbedo (2021) examines how the presence of non-executive directors with prior experience in environmental issues can affect the ethical and environmental behavior of a company. Using a sample of companies, the author showed that board members' environmental expertise correlates with lower greenhouse gas emissions (a measure of environmental performance), and that companies with better interconnected electrical appliances have better environmental performance. More recently, Slim et al. (2021) examined the relationship between board network centrality and corporate ESG performance based on social capital theory using a panel of 2,538 companies listed on the New York Stock Exchange, specific vector centrality (communication quality) and centrality (how often they are in which the company is between two other companies) and centralization of information (aware of speed and reliability). Overall, they found that having boards
with greater social capital, as measured by board networks, was positively associated with better ESG performance.

In short, studies of multiple board members and company value show that busy managers can have a positive (reputation) or negative (excessive commitment) effect on company performance. Furthermore, these previous studies generally indicate that baseline adherence has a positive effect on ESG performance. In our study, we expanded the existing literature by examining the relationship between external managers and the three dimensions of sustainable performance (environmental, social, and governance). More specifically, we focus on directors appointed by external directors and ESG. As publications such as Dahya et al. (2019) show that the role of monitoring and advising external managers is important in making company decisions, we focus on committed external managers and ESG outcomes. We argue that busy outside directors can uniquely influence the supervisory and advisory functions of the board and thus affect the performance of the ESG. We present two opposing hypotheses and the reputation theory.

From the point of view of reputation theory, outside directors who hold more than one seat on the board of directors are people with more experience and competence. They perform their supervisory functions more efficiently, resulting in strict management control. Additionally, these leaders have a strong motivation to establish and maintain their reputation as decision experts. Several board members attest to the director's reputation as an expert in advisory and oversight. The ability of companies to respond effectively to stakeholder needs will lead to better ESG performance (Yu et al. (2020)). Therefore, according to reputation theory, we would expect busy outside managers to increase the company's ESG performance. From the perspective of hyper-participation theory, it takes a lot of time and effort to have too many seats outside the board of directors, which can make managers too busy and too committed to be effective advisors and controllers. Harymawan et al. (2019) explore this idea and thus, according to the over-sharing theory, we expect busy outside managers to negatively affect the company's ESG performance. Our hypothesis is as follows:

**H1:** Busy outside managers influence a company's sustainability results measured by ESG scores.

### 3. Data and methodology

#### 3.1. Sample and data

To measure ESG, we rely on the Sustainalytics database (via WRDS), which studies key ESG concerns and indicators. The company offers a score from 0 to 100 based on industry comparison. Score 100 is the highest (or strongest), while zero is the lowest. ESG's top interests, of course, fall into three areas: ESG performance. All concerns analyzed vary depending on the sector and according to the sector, each ESG concern is assigned a specific weighting. The database covers no less than 70 indicators with indicators divided into three dimensions: preparation (assessment of governance systems and policies), dissemination (transparency with regard to environmental, social and management considerations) and performance (quantitative and qualitative). We collect information about board characteristics, information about the board and management from MSCI ESG Research and financial information from Compustat. We collect data based on our panel data, which ranges from 2014 to 2020. Our final sample consists of 550 US companies over a five-year period it containing 3850 firm-year observations.

#### 3.2. Variable measurements

##### 3.2.1. ESG Rating Scales

For our ESG measurement, we use ESG score and then 3 components score: Environmental score, Social score and Governance score. These scores are all on a scale from 0 to 100 and are all retrieved from the Sustainalytics database.

##### 3.2.2. Board characteristics

The variables in counseling characteristics are measured according to Trinh et al. (2020). Board size (board size) is the total number of directors appointed by an internal director in relation to the size of a company's board in a given year. The percentage of female directors (femalegndr) is the ratio of female directors to the size of the board of directors within a given year. Duplication (duplication) is a grade 1 variable if the CEO is the same person as the CEO and zero if he is not. See Appendix 1 for a more detailed definition of the variables.

##### 3.2.3. Directors’ busyness

There are several ways to measure a leader's busyness. We use four alternatives to the activity of directors Chintrakarn et al. (2021), Trinh et al. (2020) defines a "busy" external director as a director who has a total of two or more board members. We use two or more administrators as thresholds because it is a less restrictive procedure for using three or more administrators according to Mans-Kemp et al. (2020). Our goals are as follows: according to Trinh et al. (2020), we use the external average (averageOD), which is the total number of external board members (independent and gray) divided by the total number of external directors. Based on Mans-Kemp et al. (2020), we use the percentage of busy external directors (BusyOD). Third, the average number of board members occupied by independent directors (directorshipsIND) is estimated as the total number of board members occupied by independent directors divided by the number of independent directors. According to Tan et al. (2019), we use a variable called "the table is occupied". This is a dichotomous variable similar to...
Compustat's business-specific variables include return on assets (ROA), total assets (TA) and leverage (total debt to total assets).

### 4. Results

To test our hypotheses, we use univariate and multivariate analyses. Our empirical analysis consisted of univariate tests and multivariate regression analysis. We note that insider directors represent an average of 14.44% of board members and women 14.91% of board members. 31.45 percent of boards have the dual role of CEO/Chairman. The average return on company assets in the same year for any given year is 5.99%. The effect of leverage (total debt rather than total assets) is on average 57.77%. The size of the companies measured with standard assets is 8.99. We can then see that the correlations between the variables in the sample are very high. In Table 2, we report the correlation coefficients for the variables in the sample. It should be noted that all ESG scores are positively corrected correctly by coating measurements of varying degrees. It should also be noted in Table 2 that the correlation coefficient between firm size and ESG score is also positive and statistically significant at the 1% level.

#### Table 1

**Descriptive Statistics**

| Variable                | N     | Mean      | Std Dev  | Minimum | Maximum |
|-------------------------|-------|-----------|----------|---------|---------|
| Total_ESG_Score         | 3850  | 56.66995  | 8.32505  | 35      | 99      |
| Governance Score        | 3850  | 67.00586  | 8.03251  | 42      | 96      |
| Social Score            | 3850  | 54.38125  | 9.90957  | 23      | 91      |
| Environment Score       | 3850  | 51.12536  | 12.41258 | 24      | 95      |
| Percentage of busy outside directors | 3850 | 57.00122 | 21.8458  | 0       | 185.7143|
| BD Busy                 | 3850  | 0.4625    | 0.459    | 0       | 1       |
| Avg. directorships by outside directors | 3850 | 2.1952    | 0.4925   | 1.122   | 6.953   |
| directorshipsIND        | 3850  | 1.95044   | 0.4895   | 1       | 6.2929  |
| ln_boardsize            | 3850  | 2.30692   | 0.20801  | 1.3799  | 3.11125 |
| Percentage of inside directors | 3850 | 14.44355  | 7.64477  | 0       | 76      |
| Percentage of women directors | 3850 | 14.91119  | 6.95984  | 0       | 63.66667|
| Duality                 | 3850  | 0.31478   | 0.46451  | 0       | 1       |
| ln_companyage           | 3850  | 3.71412   | 0.83334  | 0.70005 | 5.40123 |
| ROA                     | 3850  | 0.05998   | 0.07979  | -2.29005| 0.4591  |
| Leverage                | 3850  | 0.3777    | 0.21006  | 0.03275 | 1.65771 |
| log_TA                  | 3850  | 8.99958   | 1.23441  | 4.79138 | 13.57001|

Note: This Table presents the descriptive statistics of variables. Please see Appendix 1 for definition of variables.

#### Table 2

**Correlation Matrix**

|       | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. Total_ESG_Score         | 1     | 0.569 | 0.968 | 0.844 | 0.222 | 0.251 | 0.163 | 0.184 | 0.289 | 0.263 | 0.084 | 0.212 | 0.019 | 0.061 | 0.425 |
| 2. Governance Score        | 1     | 0.368 | 0.312 | 0.185 | 0.177 | 0.060 | 0.098 | 0.179 | 0.211 | -0.249 | 0.129 | 0.071 | 0.113 | 0.098 |
| 3. Social Score            | 1     | 0.549 | 0.177 | 0.101 | 0.125 | 0.133 | 0.236 | 0.323 | 0.042 | -0.138 | 0.019 | 0.022 | 0.325 |
| 4. Environment Score       | 1     | 0.219 | 0.255 | 0.192 | 0.365 | 0.271 | 0.244 | -0.033 | 0.155 | 0.034 | 0.151 | 0.425 |
| 5. BD Busy                 | 1     | 0.744 | 0.622 | 0.508 | 0.144 | 0.125 | -0.009 | 0.325 | -0.078 | 0.305 | 0.296 | 0.002 |
| 6. Pctbsayoutside           | 1     | 0.615 | 0.678 | 0.485 | 0.395 | 0.008 | 0.111 | 0.117 | 0.387 | 0.299 |
| 7. Avgoutside              | 1     | 0.798 | 0.154 | -0.199 | -0.002 | 0.011 | 0.114 | 0.222 | 0.334 |
| 8. Avgindependent          | 1     | 0.159 | -0.122 | 0.099 | 0.221 | 0.364 | 0.267 | 0.318 |
| 9. ln(Board Size)          | 1     | 0.323 | 0.192 | -0.144 | 0.586 | 0.238 | 0.432 |
| 10. femalealndr            | 1     | 0.285 | 0.222 | 0.003 | 0.189 | 0.334 |
| 11. Duality                | 1     | 0.254 | 0.099 | 0.349 | 0.199 |
| 12. ln(Company Age)        | 1     | 0.111 | -0.281 | 0.335 |
| 13. ROA                    | 1     | 0.521 | 0.236 | <0.001 | <0.001 |
| 14. Leverage               | 1     | 0.351 | <0.001 |
| 15. Log(Total Assets)      | 1     |       |

To test our hypotheses, we apply an approach similar to that of Ferris et al. (2019). In Table 3, we present the results of
regression analyzes using the overall ESG score as the dependent variable. In this analysis, we use both fixed and annual
effects. Our model is as follows:

$$\text{ESG Score}_i = \beta_0 + \beta_1 \text{lag ESG Score}_i + \beta_2 \text{Board Busyness}_i + \beta_3 \text{Board Characteristics}_i + \beta_4 \text{Firm Characteristics}_i + \text{Company}_i + \text{Year}_i + \epsilon$$

Table 4
Environment, Social and Governance Score Regressions

| Panel A: Average Directorships by Outside Directors (AverageOD) n = 550 Dependent Variable |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Parameters                                    | Environment Score                             | Social Scores                                 | Governance Score                             |
| Intercept                                     | 3.3991                                        | 22.3525                                       | 40.4778                                      |
|                                              | (3.6651)                                      | (3.2977)**                                   | (2.6165)**                                   |
| LAG_score                                     | 0.2499                                        | 0.1967                                        | 0.2332                                       |
|                                              | (0.0236)**                                    | (0.0263)**                                   | (0.0225)**                                   |
| Avgoutside                                    | 0.7989                                        | 0.3479                                        | 0.314                                        |
|                                              | (0.3546)**                                    | (0.3233)                                      | (0.2669)                                     |
| Controls                                      | YES                                           | YES                                           | YES                                          |
| Year Fixed Effects                            | YES                                           | YES                                           | YES                                          |
| Firm Fixed Effects                            | YES                                           | YES                                           | YES                                          |
| Adj. R-squared                               | 21.65%                                        | 14.15%                                        | 16.66%                                       |

| Panel B: Percentage of Busy Outside Directors (BusyOD) n = 550 Dependent Variable |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Parameters                                    | Environment Score                             | Social Scores                                 | Governance Score                             |
| Intercept                                     | 4.5171                                        | 22.5538                                       | 41.9852                                      |
|                                              | (3.4177)                                      | (3.3315)**                                   | (2.2223)**                                   |
| LAG_score                                     | 0.2752                                        | 0.2258                                        | 0.2664                                       |
|                                              | (0.0102)**                                    | (0.0111)**                                   | (0.0158)**                                   |
| ptcbusyoutside                                | 0.0284                                        | 0.0266                                        | 0.0221                                       |
|                                              | (0.0094)**                                    | (0.0098)**                                   | (0.0086)**                                   |
| Controls                                      | YES                                           | YES                                           | YES                                          |
| Year Fixed Effects                            | YES                                           | YES                                           | YES                                          |
| Firm Fixed Effects                            | YES                                           | YES                                           | YES                                          |
| Adj. R-squared                               | 24.71%                                        | 15.16%                                        | 17.56%                                       |

| Panel C: Average Directorships by Independent Directors (directorshipsIND) n = 550 Dependent Variable |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Parameters                                    | Environment Score                             | Social Scores                                 | Governance Score                             |
| Intercept                                     | 3.2225                                        | 24.37                                         | 42.9952                                      |
|                                              | (3.4761)                                      | (3.3185)**                                   | (2.5482)**                                   |
| LAG_score                                     | 0.2233                                        | 0.2605                                        | 0.2337                                       |
|                                              | (0.0161)**                                    | (0.0119)**                                   | (0.0165)**                                   |
| Avgindependent                                | 0.7958                                        | 0.1421                                        | 0.2331                                       |
|                                              | (0.8235)**                                    | (0.2966)                                      | (0.2525)                                     |
| Controls                                      | YES                                           | YES                                           | YES                                          |
| Year Fixed Effects                            | YES                                           | YES                                           | YES                                          |
| Firm Fixed Effects                            | yes                                           | yes                                           | yes                                          |
| Adj. R-squared                               | 25.95%                                        | 15.01%                                        | 17.28%                                       |

| Panel D: BDbusy                                |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Parameters                                    | Environment Score                             | Social Scores                                 | Governance Score                             |
| Intercept                                     | 4.2156                                        | 23.403                                        | 42.5214                                      |
|                                              | (3.6581)                                      | (2.9123)**                                   | (2.8956)**                                   |
| LAG_score                                     | 0.2644                                        | 0.2128                                        | 0.2221                                       |
|                                              | (0.0131)**                                    | (0.0136)**                                   | (0.0199)**                                   |
| BDbusy                                        | 1.2123                                        | 1.2896                                        | 0.8952                                       |
|                                              | (0.3655)**                                    | (0.3122)**                                   | (0.2241)**                                   |
| Controls                                      | YES                                           | YES                                           | YES                                          |
| Year Fixed Effects                            | YES                                           | YES                                           | YES                                          |
| Firm Fixed Effects                            | YES                                           | YES                                           | YES                                          |
| Adj. R-squared                               | 25.21%                                        | 16.55%                                        | 19.29%                                       |

Note: This table reports partial results from panel regressions using firm and year fixed effects. The controls represent all the same controls as described in Table 3. Here the dependent variable varies by Model and the busyness indicator varies by panel. Please see Appendix I for definition of the variables. *,**,*** represent significance at 10%,5%,and 1% levels, respectively.
We analyze panel data using constant power regressions. We use both fixed firm effects and fixed annual effects. The fixed effects method is robust because company-specific variables are neglected, and the year with fixed effects deals with potential correlations over time. We also use the sum of the ESG tipping points, which are used as in the previous literature to help control for potential internal problems. In addition, there may be a sustained ESG score that needs to be recognized. Variables used in the model include:

\[ \text{BDbusy, averageOD, BusyOD, avgindependent. Board controls include: (board size), board insider ratio, share of women on board and CEO / chairman duplication. The company's controls include: return on assets, leverage (total debt / total assets), journal (total assets), journal (market capital) and profit / asset ratio.} \]

In Table 3, we report the results of the first series of regressions. If we first look at the activity variables, we see in models 1-4 that BusyOD, boardbusy, avgindependent and averageOD are all positive and statistically significant to predict ESG results. This finding supports the board's theory of the activity's reputation. Keep in mind that this theory suggests that people with multiple board positions are experienced and demonstrate skills that make them highly qualified as board members. They must be able to perform their tasks effectively and must also adhere to ESG qualities that require managerial skills. Interestingly, we see that panel properties listed as controls for regressions in Table 3 are important in determining ESG scores. The table size coefficient is positive, and large, statistically significant panels tend to have higher ESG scores. Our result is in line with Harjoto & Wang, (2020). The proportion of board insiders is negatively correlated with the ESG score. The proportion of women on the board is positively correlated with the overall ESG score. This result is consistent with the argument of Mans-Kemp et al. (2020) that the diversity of the board (measured by the proportion of women on board) improves the sustainability of a company, in particular the social and environmental dimensions of sustainability. Interestingly, companies where the same person is CEO and Chairman of the Board tend to have higher ESG scores (double work = 1). With regard to duplication, this study finds results that are incompatible with the argument that separating the CEO and the chairman leads to increased transparency and supervision. Instead, this study finds that companies with a CEO binary have higher ESG scores. Although copying the CEO may lead to less transparency in financial information, this does not appear to be the case with ESG's additional accounts. Beji et al. (2020) also found a positive correlation between CEO dichotomy and CSR performance using a sample of commercial banks.

In terms of financial supervision, we see that the age of the company is positively correlated with ESG results. Older companies have higher ESG scores. Interestingly, the ROA is negatively correlated with the ESG score. Company size is also positively correlated with ESG score. Fixed annual effects are used in this form as well as corporate control at all levels. Then, we use the same model, but we focus on different dimensions of the ESG: the dependent variable in Table 4 is respectively the environmental score, the social score and the governance score. Each score represents a value from 0 to 100 (100 is the highest / best score). We use the four models to move the board; These measures are analyzed separately in panels A through D of Table 4. To rationalize the tables, we report only interceptions, late scores, and occupied variables. The form is as follows:

\[
\text{Total ESAS component -score} = \beta_0 + \beta_1 \text{lag component SCORE} + \beta_2 \text{Board Busyness} + 3\text{Board Controls} + 4\text{Firm Controls} + (\text{Company indicators}) + (\text{Year indicators}) + \varepsilon
\]

where the component's ESG score is equal to the ESG score and the array occupancy variables are equal to BDbusy, BusyOD, averageOD, and avgindependent. Note that all of the controls used in the first regression model are used in those models and that the controls are not reported in the tables. We see that the activity to varying degrees is positive and statistically significant in predicting changes in several components of ESG. In panel (a) of Table 4, we find that the average period for external managers (average) is positive and statistically significant at the 5% level, which predicts changes in environmental scores. It is not important to predict social or managerial scores. The percentage factor BusyOD is positive and statistically significant in all models of panel B. This suggests that the percentage of operational external managers has a direct impact on environmental, social and managerial performance. In addition, we see in panel (c) that for the environmental result, the coefficient of independent mandate for independent managers (dependent averages) is positive and statistically significant at the 5% level. In other words, busy outside directors on the board are associated with better environmental outcomes for the company, all other things being equal. In general, our results are consistent with those of Ortiz -de -Mandojana et al. (2019); Valbuena - Hernandez & Ortiz - de - Mandojana, (2021) that the actions of managers are positively correlated with the environmental performance of the company.

Finally, we reported in session (d) that the presence of the board is positive and statistically significant in predicting changes in the three ESG measures. The control variables in their relationship to the outcome variable are similar to what we saw in Table 3. For example, larger panels correlate with better outcomes, and more panel insiders correlate with higher scores. Overall, the results here indicate that occupied external managers not only have a positive effect on the total ESG score, but also to varying degrees on the individual components of the ESG. Environmental score is affected more than other busy external managers; While the outcome of governance appears to be the least affected. These tests also support the busy board reputation hypothesis, in which busy external board members correlate positively with ESG scores.
5. Conclusion

In this article, we analyze the impact of occupied external directors (external directors with multiple board positions) on ESG performance. Companies today understand the importance of ESG from the perspective of stakeholders and shareholders, and therefore it is good for the company to make the right decisions in this area. We analyze both the participation hypothesis and the reputation hypothesis. Using a sample of 569 US companies over a five-year period, we found a positive relationship between engaged external managers and ESG performance. We study several objectives of the Administrator's activity and the actions that are scientifically supported by the ESG. Scores are based on the ESG score as well as the component scores. These results support the reputation theory.

From a theoretical standpoint, this study expands the current body of research on busy (multi-state) managers and corporate sustainability. Contrary to many people's beliefs, busy managers are bad (the engagement hypothesis), and we show that busy external managers improve company sustainability. From a practical point of view, the results of this study may be of interest to the company's board of directors, which may consider busy outside directors if they wish to increase the company's sustainability and social responsibility. Regulators and stakeholders should also note the role that busy external managers play in the company's quest to become good citizens of business. Regulating more states may aim to encourage more transparency rather than impose limits on its frequency, as more mandates could help companies achieve their sustainability goals.

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### Appendix 1

**Definition of Variables**

| Variable                      | Description                                                                 |
|-------------------------------|-----------------------------------------------------------------------------|
| Total ESG Score               | Value of global ESG Score taken from the Sustainalytics database, equal to a scale from 0 to 100. A score of 100 is strongest while 0 is the lowest. |
| Environment Score             | Value of Environment Score taken from the Sustainalytics database, equal to a scale from 0 to 100. A score of 100 is strongest while 0 is the lowest. |
| Social Score                  | Value of Social Score taken from the Sustainalytics database, equal to a scale from 0 to 100. A score of 100 is strongest while 0 is the lowest. |
| Governance Score              | Value of Governance Score taken from the Sustainalytics database, equal to a scale from 0 to 100. A score of 100 is strongest while 0 is the lowest. |
| Outside director Number of not current employees of the firm directors’. |
| Independent director          | Outside directors who are not current or trainer employees of the firm and they have no business relationship with the firm. |
| Board Size                    | Equal to the total number of directors serving on the firm’s board of directors. |
| Proportion of inside director (pcinsider) | The proportion of total number of inside directors to board size within the firm. |
| Percentage of women director (femalegndr) | The ratio of total number of women directors to board size of the firm |
| Busy outside director         | Represented by the outside director who holds two or more directorships. |
| Average directorships by outside directors (AverageOD) | Equal to the total directorships held by outside directors alienated by the total of outside directors. |
| Proportion of busy outside directors (BusyOD) | Proportion of outside directors holding two or more directorships. |
| Board Busy                    | A dichotomous variable equal to one if %50 or more outside directors on the board are busy (hold two or more total directorships) otherwise zero. |
| Average directorships by independent directors (directorshipsIND) | The total directorships held by independent directors divided by the number of independent directors. |
| Duality                       | Duality is a variable given the score of 1 if the CEO is the same person as the Chairman of the Board and 0 if not. |
| Company Age                   | Equal to the number of the year of the age of the firm. |
| ROA                           | Equal to the percentage of return on assets. |
| TA                            | Equal to the total assets. |
| Leverage                      | Equal to the debt to total assets. |

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