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THE RELATIONSHIP BETWEEN BOARD CHARACTERISTICS AND ESG PERFORMANCE: EVIDENCE FROM THE OIL, GAS AND COAL SECTOR

Yönetim Kurulu Yapısı ve ESG Performansı: Petrol Gaz ve Kömür Sektöründe Ampirik Bir Araştırma

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Abstract: The priority given to environmental, social and governance (ESG) issues helps firms establish effective ties with key stakeholders and reduce potential risks. It also provides firms with opportunities to gain competitive advantage, enhance their operations and financial and nonfinancial performance, and increase their brand values. The effect of the characteristics and structure of the board of directors on the ESG directly affects the process. The aim of this study is to provide evidence for the impact of board structure (board diversity, board independence, board size, audit committee expertise, CEO duality and CSR committee) on environmental, social and corporate governance (ESG) performances of firms in oil-gas-coal sector. The study used data from 385 companies in the Oil, Gas and Coal sector worldwide which have been listed in ASSET4 between 2010 and 2019. Refinitiv's Thomson Reuters ASSET4, EIKON, and Datastream databases have been used to obtain data on ESG performance and financial performance variables used in the study. As a result of the regression analyzes carried out, it has been determined that the structure of the board of directors has an effect on the ESG performance and its sub-dimensions.

Keywords: ESG performance, board structure, oil-gas-coal sector

Öz: Çevresel, sosyal ve yönetişim (Environmental, Social and Governance-ESG) konularına verilen öncelik, firmaların kilit paydaşlarla etkili bağlar kurmasına ve potansiyel riskleri azaltmasına yardımcı olmaktadır. Ayrıca firmalara rekabet avantajı elde etme, operasyonlarını ve finansal ve finansal olmayan performanslarını geliştirme ve marka değerlerini artırma fırsatı da sunmaktadır. Firmaların yönetim kurulu özelliklerinin ve yönetim kurulu yapısının ESGüzerindeki etkisi bu durumu doğrudan etkilemektedir. Bu çalışmanın amacı petrol-gaz-kömür sektöründe faaliyet gösteren şirketlerin yönetim kurulu yapısının (yönetim kurulu çeşitliliği, yönetim kurulu bağımsızlığı, yönetim kurulu büyüklüğü, denetim komitesi uzmanlığı, CEO ikiliği ve KSS komitesi), çevresel, sosyal ve kurumsal yönetim (Environmental, Social, Governance-ESG) performanslarına etkisine yönelik kanıtlar sunmaktır. Bu amaçla çalışmada, Petrol Gaz ve Kömür sektöründe dünya genelinde ASSET4'te yer alan 385 firmanın 2010-2019 yıllarını kapsayan verileri kullanılmıştır. Çalışma kapsamında kullanılan ESG performansı ve finansal performans değişkenlerine ait veriler Refinitiv'in Thomson Reuters ASSET4, EIKON ve Datastream veri tabanından elde edilmiştir. Gerçekleştirilen regresyon analizleri sonucunda şirketlerin yönetim kurulu yapısının ESG performansı ve alt boyutları üzerinde etkili olduğu tespit edilmiştir.

Anahtar Kelimeler: ESG performansı, yönetim kurulu yapısı, petrol-gaz-kömür sektörü

INTRODUCTION

The priority given to environmental, social and governance (ESG) issues helps firms build strong relationships with key stakeholders and mitigate potential risks. It also provides firms with opportunities to gain competitive advantage, improve their operations and financial performance, and increase their brand values (Dey et al., 2011; He et al., 2017; Govindan et al., 2021). However, in these matters, irresponsible and inadequate corporate practices are likely to damage the firm's reputation, cause loss of customers and financially harm businesses (Lo and Sheu, 2007; Govindan et al., 2018). Therefore, it is increasingly important for governing bodies to address long-term environmental, social and governance risks and integrate them into their corporate strategy and business models.

The design and diversity of the board of directors and the existence of committees composed of expert members are the elements that strengthen the corporate governance function. The success of a firm depends on the effectiveness of the board of directors, which establishes and overseeing the governance system and corporate culture and has the responsibility to ensure the implementation of strategic objectives (Birindelli et al., 2018; García-Sánchez et al., 2018). The board of directors is the official body that acts in the financial interests of its shareholders and determines the direction of the firm. However, today, the structure and diversity of the board of directors of firms has become a determining factor for non-financial performance and financial performance (Coffey and Wang, 1998; Dunn and Sainty, 2009; Hafsi and Turgut, 2013; Nekhili et al., 2019). In addition, the success of the board of directors is measured by the importance given to business ethics and corporate social responsibility (Birindelli et al., 2018).

Board diversity is defined as the diversity that emerges as a result of the differences in the personalities, ages, learning styles, knowledge levels, and specialties of the board members (Coffey and Wang, 1998) and is considered as an indicator of the firm's sensitivity to the expectations of stakeholders (Luoma and Goodstein, 1999). Huse et al., (2009) argue that including female managers and employee representatives on the boards of directors is an important criterion for diversity. Like gender diversity on the board of directors (Bennouri et al., 2018; Birindelli et al., 2018; Nekhili et al., 2020), board independence is recognized as an important element in the formulation and oversight of strategic policies aimed at stakeholder interests and expectations (Cucari et al., 2018; Ortas et al., 2015).

The size of the board of directors has found its place in the literature as another factor affecting the ESG performance of firms. The first view argues that small boards of directors increase efficiency and success (Jensen, 1993; Andres et al., 2005; Ahmed et al., 2006; Amran et al., 2014). Another view claims that as the size of the board of directors increases, the financial and

non-financial performance of the firms also increases. The effect of board size on firm performance is an undeniable fact and is important for stakeholders. (Cheng and Courtenay, 2006; Htay et al., 2012; M. I. Jizi et al., 2014; Arena et al., 2015; M. Jizi, 2017).

Another factor that affects the structure of the board is the duality of the CEO. CEO duality occurs when the chairperson and CEO positions are jointly assumed by the same person (Mallin and Michelon, 2011). Studies in the literature claim that CEO duality hinders board independence, resulting in a weak internal control and governance system (Roberts et al., 2005; Haniffa and Hudaib, 2006) Separation of chairperson and CEO roles improves the effectiveness of firms' control and governance functions, reduces their costs, and increases their financial and non-financial performance (Naciti, 2019).

From the agency theory perspective, board independence and board diversity will enable more effective functioning and oversight of the governance mechanism and internal control (Jensen and Meckling, 1976). This situation will encourage firms to take more action on the needs and expectations of various stakeholders (Ibrahim and Hanefah, 2016). According to the stakeholder theory, the independence and diversity of the board of directors ensures that the relationship established with the stakeholders progresses positively. It also plays an important role in building and strengthening stakeholder trust (Michelon and Parbonetti, 2012; Stuebs and Sun, 2015; Shahbaz et al., 2020).

In recent years, firms have established "Corporate Social Responsibility Committees" to fulfill their important sustainability tasks. (Birindelli et al., 2018) Stakeholder theory argues that such committees assist the board of directors in overseeing the firm's sustainability practices. The CSR committee also plays an important role in monitoring and evaluating the performance of the firm by ensuring compliance with regulations related to sustainability risks (Mahmood et al., 2018).

There are many studies in the literature examining the relationship between board structure and ESG performance. While some of these studies cover a specific country and/or community, some of them cover a specific sector. The firms included in this study are firms operating in the oil-gas-coal sector. According to recent market researches a leading business intelligence firm, the total revenues for the oil-gas-coal sector came to approximately $2.1 trillion in 2021. This sector is composed of firms that explore for, develop, and operate oil gas and coal fields. It is also sometimes referred to as the oil-gas-coal exploration and production sector. The sector includes firms that specialize in crude petroleum production, the mining and extraction of oil from shale or sands and the recovery of hydrocarbon liquids. Some of the biggest oil and gas players are involved in the exploration and production of oil (IBISWorld, 2021).

Oil, gas and coal, which are fossil fuels, are widely discussed because of the damage they cause to the environment and atmosphere. In addition, the economic and social effects of these products are an undeniable fact. The stakeholders of the firms operating in this sector give importance to the ESG performance of the firms as much as the financial performance. Stakeholders expect top management to take the actions and make disclosures on these issues. The characteristics, structure and design of the boards of directors, which are responsible for realizing this mission imposed on firms, directly shape the process. This study tries to reveal the situation in the oil-gas-coal sector, which is very sensitive to ESG issues. For this reason, this study specifically focuses on the relationship between board structure and ESG performance.

In the literature review, no study was found in this sector related to the subject. It will contribute to the literature, as it is the first study to explain the relationship between ESG performance and board structure in the oil gas coal sector.

This study is structured as follows. First, it presents key theoretical explanatory approaches to ESG and how it is potentially affected by board structure. In this context, hypotheses are also determined. Next, the data and methodology of the empirical analysis are followed, in which sample selection, key variables, and the regression model are presented. The results of correlation and regression analyses are given. The summary and limitations of the study are explained.

Theoretical Framework

The academic debate on whether ESG practices have a positive or negative impact on firms began more than 50 years ago. During this time, different theories such as agent, stakeholder, legitimacy, and institutional theories have been used to explain ESG practices.

ESG Activities

ESG points out to the evaluation tool to assess the corporate sustainability widely known as the environmental, social and governance associated activities of the firms. The fast developments in the global climate and diverse societal risks have forced the shareholders and firms highly conscious about the sustainability.

The notion ESG includes three pillars, particularly environmental, social, and governance. All the pillars lead comparable importance and significance the aspect of sustainability and social responsibility of the corporations. The scope, contexts, and the factors of measurement of these three pillars are as discussed below (Naeem, 2021):

The environmental pillar of ESG includes both negative and positive elements, and the effects of the firm's environmental activities and projects. ESG's environmental disclosures comprise how the firm uses and deals with natural resources for its activities. The environmental aspect also concentrates on firms' pollution policies. Environmental pillars of ESG include carbon emission, reduction of biodiversity impact, ozone-depleting materials, waste management and recycling, reduction of toxic gases and chemicals, use of sustainable energy, water pollution, etc. handles with issues and reports them.

The social pillar of ESG has performances and approaches linked to the rights and values of the labor pool inside the firm, assuring the health and security of the employees, diversification of the personnel, communication with the suppliers, improving essential human rights, firm's responsibility and loyalty towards the community, responsible marketing and accepting the responsibility of its own products and so on.

The governance pillar of the ESG comprises company's policies and knowledge about the organizational hierarchy and CEO, construction of the firm's board, rights of the representatives in board of directors, diversification in the board of directors, audit and transparency related information, compensation strategies, taxation policies, rights of the shareholders, relationship with the owners and shareholders, stakeholder engagement and CSR strategies, etc.

Agency Theory

In the agency theory approach, it is argued that, sometimes, managers have more information about the business than the owners of the business and can put their own interests ahead of organizational interests because they cannot be constantly controlled. The approach examines this conflict of interest between the parties and develops some measures to eliminate it (Jensen and Meckling, 1976). The design and diversity of the board of directors and the existence of committees composed of expert members are factors that strengthen the corporate governance function. In businesses with a strong corporate governance and internal control system, the board of directors will perform monitoring and auditing activities more effectively (Carter et al.,

2003). In this way, agency conflicts will decrease and the corporate performance (both financial and non-financial) of the firm will be positively affected by this situation (Erhardt et al., 2003).

According to the agency theory, it is claimed that ESG activities also create an agency problem between managers and shareholders. According to the theory, ESG spending is not in the interests of shareholders as it represents a direct outflow of funds that will reduce profits (Peng and Isa, 2020; Allouche and Laroche, 2005; Brown et al., 2006; Schuler and Cording, 2006; Barnea and Rubin, 2010; Borghesi et al., 2014; Kao et al., 2018; Peng and Isa, 2020) found results supporting this conclusion in their study.

Stakeholder Theory

Stakeholder theory assert that organizations can generate benefits and gains by responding to stakeholder demands and concerns (Freeman, 2010; Roy and Goll, 2014; Gallego-Álvarez and Ortas, 2017). Stakeholder theory includes not only the firm's own shareholders, but also managers, shareholders and creditors, customers, suppliers, employees, government, and all other interest groups (Roy and Goll, 2014; Gallego-Álvarez and Ortas, 2017). Although the main focus of stakeholder theory is business world and firms, it can also be applied to other organizations (Donaldson and Preston, 1995). These stakeholders also include institutions and society (Mitchell et al., 1997) and even the natural environment (Hart, 1995).

In fact, stakeholder theory introduced a new management approach. According to this approach, the needs of shareholders cannot be met without meeting the needs of other stakeholders (Foster and Jonker, 2005; Hawkins, 2006; Jamali, 2008; Parmar et al., 2010). Today, maximizing profits and creating value for shareholders is no longer the sole purpose of management. These goals become meaningful with the satisfaction of demands and needs related to socially and environmentally sustainable behavior (Longo et al., 2005). This theory, which emphasizes the idea of satisfying not only firm shareholders, but also third parties, argues that firms should be honest and ethical in their interactions with their stakeholders (Donaldson and Preston, 1995; Jones, 1995; Vasconcelos et al., 2012).

Stakeholder theory is one of the most important theories explaining how firms should respond to stakeholders' sustainability information needs (Chen and Roberts, 2010; Smith et al., 2005). The stakeholder theory provides the basis for corporate executives to allay the growing concerns of stakeholders about sustainability and communicate to them the contribution of firms to sustainable development and human well-being (Chen and Roberts, 2010). In order to establish this communication, firms need to improve their economic, social, and environmental performance and transparently share this information with their stakeholders. Stakeholder theory reveals that firms should create value for all their stakeholders (Freeman, 2010) and CSR reporting is seen as a tool that provides the necessary dialogue between firms and their stakeholders. Firms use corporate social and environmental reporting to listen and openly communicate with stakeholders about their respective concerns and contributions (Gray et al., 1995; Preston and Donaldson, 1999).

In addition, stakeholder engagement firms can achieve enhanced environmental, social and economic performance that meets the diverse needs of stakeholders (Arayssi et al., 2016). Regardless of whether they are independent or not, the members of the board of directors are tasked with making consistent decisions on environmental, economic, and social issues for the firm, whether the firm is large or not, and for the improvement of firm performance (Liao et al., 2015).

Legitimacy Theory

Legitimacy theory assumes that firms must act in accordance with social values and norms in order to maintain their current existence (Dowling and Pfeffer, 1975). This study is also stranded on legitimacy theory. Legitimacy theory is based on the concept that a “social

contract" prevails between the firm and society. Society is thought to provide firms to survive and have rights, and in return demanding them to fulfill its promises about how their activities should be directed. Then, in order to sustain a firm must ensure that the actions it starts actually are or are identified as being in conformity with the values and norms of society. When society's promises are not satisfied, a firm's actual or perceived behavior is not in consonance with social values and norms, a violation of contract continues and an authority difference may develop.

In terms of legitimacy theory, firms in some sectors are socially more noticeable and are more brought to light to the public surveillance. They are then believed to go through considerable social and political pressure to carry out in an extremely socially acceptable way and to provide information in certain areas of ESG and thus are more likely to disclose in those areas.

Having determined ESG performance, it is considered that how board members can help the firm manage its stakeholders and secure their approval. In a boardroom, each director's experiences and associations with stakeholders impact how he or she considers the importance of stakeholder claims, and how he or she secures the resources to help focus on important claims (Goodstein and Boeker, 1991; Mitchell et al., 1997). More regularly, in dealing with stakeholder relationships, board directors might play vital and diverse roles. And these efforts might boost ESG performance of the firm.

HYPOTHESES

In the context of agency, stakeholder and legitimacy theories, the following hypotheses have been developed in order to determine the relationship between the structure and characteristics of the board of directors and ESG performance.

Board Size

The size of the board of directors is another factor that affects the performance of firms. The size of the board of directors directly affects the effectiveness of the governance function (Amran et al., 2014). Studies focus on the relationship between board size and firm performance (Birindelli et al., 2018).

When empirical studies are examined, two contradictory results emerge. The first of these views argues that small boards of directors increase efficiency and success (Jensen, 1993; Andres et al., 2005; Ahmed et al., 2006; Amran et al., 2014). Another view claims that as the size of the board of directors increases in large and complex firms, the financial and non-financial performance of the firms also increases (Cheng and Courtenay, 2006; Htay et al., 2012; M. I. Jizi et al., 2014; Arena et al., 2015; M. Jizi, 2017).

As can be seen from the studies in the literature, there is currently no consensus on the connection between the size of the board of directors and firm performance. This situation caused making an inference in the light of the relevant theories. In this context, when an evaluation is made in the light of agency and stakeholder theories, it is concluded that the diversity of the board of directors positively affects the ESG performance of the firms. Smaller boards are less diverse in terms of education, expertise, gender, and stakeholder representation (Laksmana, 2008; Guest, 2009). Conversely, larger boards are more likely to have diversity, expertise, and more effective distribution of tasks. Board size depends on the size of the firms and the complexity of their structures. For this reason, the country of operation, the sector and the size of the firm are important factors affecting the number of managers (Krishnan and Visvanathan, 2009; Pathan, 2009).

Considering the size of the firms in the oil-gas-coal sector and their worldwide activity network, the following hypothesis is formed regarding the size of the board of directors:

H_1: There is a positive relationship between board size and ESG performances.

Gender Diversity on Board

According to Coffey and Wang (1998), board diversity is defined as the differences found among its members. The presence of women on the board is one of the most important elements of board diversity (Hillman et al., 2002). The presence of women on boards of directors has increased with media attention, calls from stakeholders, legal or regulatory changes, and the development of good corporate governance practices. Especially within the framework of these changes at the global level, France, Italy, Norway and Spain have introduced mandatory quotas for women to be represented on firm boards (De Beaufort and Summers, 2013).

Gender diversity of the board improves organizational performance as it provides new insights and perspectives (Siciliano, 1996). The presence of women in the boards of directors positively affects the performance of the board of directors, and this increases the effectiveness and efficiency of the entire governance mechanism (Terjesen et al., 2009). Thus, the potential conflict of agency between management and stakeholders is reduced, and this situation is reflected positively on financial and non-financial results (Erhardt et al., 2003; Uyar et al., 2021). Also, women may be responsive to – and may develop an influence on – decisions relating to specific organisational practices, such as corporate social responsibility and environmental politics' (Nielsen and Huse, 2010). In this context, the following hypothesis regarding gender diversity is formed:

H_2: There is a positive relationship between the gender diversity of the board of directors and ESG performances.

Experience and Skills of the Board of Directors

The education, knowledge, experience and special skills gained by the members of the board of directors increase the effectiveness of the board of directors (Johnson et al., 2013). The individual experience and expertise of board members contribute to governance processes and firm operations and motivate the firm to adopt effective strategies and actions (Goodstein and Boeker, 1991). For example, financial issues, cybersecurity issues or ESG activities are just a few of the areas that can benefit from the specific expertise of board directors today.

Dass et al., (2014) argue that firms operating in certain sectors can benefit firm performance by appointing board members with experience and sufficient skills in the relevant sectors. Firms should have a mix of managers, especially those who can bring a diversity of knowledge, skills, experience and expertise to communicate with stakeholders correctly and achieve financial and non-financial success (Pfeffer and Salancik, 1978; Fama and Jensen, 1983).

In this context, the hypothesis regarding the experience and skills of the board of directors is presented below:

H_3: There is a positive relationship between the experience and skills of the board of directors and ESG performances.

Board Independence

The independence of the board of directors used to define the structure of the board of directors in the literature (Cucari et al., 2018). Independence is accepted as the key to an effective monitoring and audit activity (Ortas et al., 2017).

According to agency theory, boards of directors should comprise independent members to reduce opportunism and agency costs (Shaukat et al., 2016). Boards of directors with a high percentage of independent members are likely to be more independent and objective in decision-making, and to use surveillance and audit mechanisms more effectively (Fama and

Jensen, 1983). Independent managers facilitate effective oversight over board practices as they can make more objective judgments about management performance (Birindelli et al., 2018) This is because these managers are less involved in the firm's activities and therefore less dependent on the firm (MI Jizi et al., 2014). Also, unlike internal members, an independent member's remuneration is not related to short-term financial performance. Therefore, boards with high independence are expected to be prone to social responsibility, as well as their supervision and audit activities (Ibrahim et al., 2003; Ahmed et al., 2006; Cheng and Courtenay, 2006; Jizi et al., 2014). Similarly, according to stakeholder theory, board independence reduces conflicts of interest between different stakeholders, maximizes the long-term value of the firm, and promotes transparency (Ahmed et al., 2006; Cheng and Courtenay, 2006). Firms with more independent members on their boards of directors are expected to have an effective structure that enables them to achieve financial and non-financial performance results (Uyar et al., 2021). If independent directors are likely to respect the stakeholder needs of the firm, they are more likely to be carried out to stakeholder responsibility because in this way they develop their status and position in society (Zahra and Stanton 1988, Haniffa and Cooke 2005).

Based on all this information, the hypothesis regarding the independence of the board of directors is presented below:

H_4: There is a positive relationship between the independence of the board of directors and ESG performances.

Audit Committee Expertise

The effectiveness of the board also depends on the structure and composition of the subcommittees (Xie et al., 2003). According to Zahra and Pearce, (1989), since the structure of the board of directors directly affects the distribution of duties among the committees of the board, it also affects the commitment and participation of managers in the firm. In addition, the most important board decisions are taken at the level of committees (Kesner, 1988). For this reason, it is important that audit committee members have sufficient knowledge of finance and accounting, especially when considering firm performance (Shaukat et al., 2016). Because audit committees monitor the integrity of the firm's financial statements and overseeing the firm's internal control and risk management systems.

Studies in the literature show that audit committee members with experience and expertise in their field perform more effective oversight functions and increase firm performance (Chan and Li, 2008).

The following hypothesis regarding audit committee expertise is formed:

H_5: There is a positive relationship between audit committee expertise and ESG performances.

CEO Duality

Another element influencing the structure of the board of directors is the CEO duality. CEO duality arises when the chairperson and CEO positions are jointly assumed by the same individual (Mallin ve Michelon, 2011). According to Fama and Jensen (1983), CEO duality points out that there is no difference between decision control and decision management. Combining the role of CEO and chairperson of the board puts the decision and control system in jeopardy and increases the possibility of a conflict of interest. It also reduces the firm's overall accountability and threatens the independence of the board of directors. As a result, CEO duality reduces the overall legitimacy of the firm with its stakeholders (Forker, 1992; Roberts et al., 2005). Corporate governance best practices recommend separating the role of the chairperson of the board from that of the CEO to allow open and honest discussion of the firm's performance (Carver, 1990; OECD, 2004).

Studies in the literature argue that CEO duality inhibits board independence, resulting in a weak internal control and governance system (Haniffa and Hudaib, 2006; Roberts et al., 2005). Separation of chairperson and CEO roles improves the efficiency of control and governance functions of firms, reduces their costs and increases their non-financial performance as well as financial performance (Naciti, 2019). Thus, CEO duality could maintain a firm holding its relations with stakeholders by appealing to a sense of organizational effectiveness because 'the strengthen of the two most senior management positions provides a unity of command at the top of the firm, with obvious leadership analyzing decision-making authority and granting encouraging signals to stakeholders'(Mallin and Michelon, 2011).

Based on all this material, the hypothesis about the CEO duality is presented below:

H_6: There is a negative relationship between CEO duality and ESG performances.

Existence of CSR Committee

Profit in the short run and value creation in the long run is a must for the future of corporate life (Gennari, 2019). In particular, the importance of board subcommittees is increasing in order to manage activities related to economic, social, environmental, health and safety issues and stakeholder relations and to balance potential conflict between them (Eccles et al., 2014; Burke et al., 2019).

In recent years, firms have established "Corporate Social Responsibility Committees" to fulfill their important ESG tasks (Birindelli et al., 2018). According to the agency theory, the effectiveness of the board of directors depends on the board's ability to control agency issues, which ensures better firm performance in the short and long term (Jensen and Meckling, 1976; Fama, 1980). It is inevitable to include CSR committees within the structure of the board of directors in order to improve corporate governance and positively affect corporate performance. According to stakeholder theory, such committees assist the board of directors in overseeing the firm's sustainability practices. In fact, such committees act as mediators in conflicts within the board or when short-term goals conflict with long-term goals (Salvioni and Gennari, 2017). The CSR committee also plays an important role in monitoring and evaluating the performance of the firm by reviewing the goals and policies of the board of directors and advising on issues such as ethics and integrity, legal compliance, social responsibility and sustainability, ensuring compliance with regulations regarding sustainability risks (Mahmood et al., 2018; Gennari, 2019). Therefore the existence of a CSR committee should display the firm's willingness to enhance its corporate behaviour to satisfy stakeholders' expectations (Mallin and Michelon, 2011).

In this context, the hypothesis about the CSR committees is presented below:

H_7: There is a positive relationship between the existence of CSR committees and ESG performances.

Methodology

Thomson Reuters ASSET4, EIKON, and Datastream databases from Refinitiv have been used to collect data on ESG and financial performance variables. ASSET4 includes 385 global oil, gas and coal companies. For these firms, data from 2010 to 2019 have been used. The unbalanced panel data model has been used in this study. Because the missing observations in the unbalanced panel data set are random, the estimation methods and tests developed for the balanced panel data can be developed in the unbalanced panel (Tatoğlu, 2018).

Variables and Model

The variables of the study have been determined by examining the hypotheses to be tested as well as the relevant literature. ESG performance and its sub-dimensions have been examined as the dependent variable. Tobin's Q has been determined as a market-based performance measure and return on assets (ROA) as an accounting-based performance measure as financial performance indicator. Gender Diversity on the Board of Directors, Board Independence, Board Size, Experience and Skills of the Board of Directors, CEO Duality, Audit Committee Expertise, Existence of CSR Committee have been examined as independent variables. Firm size (total assets - LnA), leverage ratio (LEV), Return on Assets (ROA) and Free Float Percentage (FFP) are the control variables of the model. The variables, the type of variables and their theoretical foundations are presented in Table 2.

Table 2: Variables

Variable	Definitions	Type	Theoretical Foundations
ESG	**ESG Performance:** The total ESG score of the firm.	Dependent	Velte, 2016a, 2016b; Birindelli et al., 2018; Cucari et al., 2018; Nekhili et al., 2019; Shahbaz et al., 2020; Uyar et al., 2020, 2021; Govindan et al., 2021
ENV	**Environmental Pillar:** The firm's environmental score.	Dependent	
SOC	**Social Pillar:** the firm's social score.	Dependent	
GOV	**Governance Pillar:** The firm's governance score.	Dependent	
Bsize	**Board Size:** It refers to the number of people in the board of directors.	Independent	Hafsi and Turgut, 2013; Birindelli et al., 2018; Shahbaz et al., 2020; Govindan et al., 2021
Gdiversity	**Gender Diversity on the Board of Directors:** It expresses the percentage of the number of women on the board of directors.	Independent	Velte, 2016a; Birindelli et al., 2018; Cucari et al., 2018; Shahbaz et al., 2020; Uyar et al., 2020, 2021; Govindan et al., 2021
BoardBS	**Experience and Skills of the Board of Directors:** Presence of professional experience and skills of the people on the board (dummy variable; yes=1, no=0)	Independent	Gallego-Álvarez and Pucheta-Martínez, 2020
BoardInd	**Board Independence:** Non-executive members’ percentage on the board	Independent	Humphrey et al., 2010; Eberhardt-Toth, 2017; Birindelli et al., 2018; Cucari et al., 2018; Burke et al., 2019; Nekhili et al., 2019; Shahbaz et al., 2020; Govindan et al., 2021; Uyar et al., 2021
ACExp	**Audit Committee Expertise:** Presence of at least three members and at least one financial expert on the audit committee (dummy variable; yes=1, no=0)	Independent	Shaukat et al., 2016
CEOduality	**CEO Duality:** Does the CEO simultaneously chair the board? Or was the chairperson of the board the CEO of the firm? (dummy variable; yes=1, no=0)	Independent	Mallin and Michelon, 2011; Ben-Amar et al., 2017; Fuente et al., 2017; Nekhili et al., 2019; Shahbaz et al., 2020; Uyar et al., 2020, 2021; Govindan et al., 2021
CSRcommittee	**CSR Committee:** Presence of a board-level CSR committee/team	Independent	Humphrey et al., 2010; Mallin and Michelon, 2011; Eberhardt-Toth, 2017; Birindelli et al., 2018; Shahbaz et al., 2020.
FirmSize	**Firm Size:** Natural logarithm of total assets of a company	Control	Humphrey et al., 2010; Mallin and Michelon, 2011; Velte, 2016a; Fuente et al., 2017; Eberhardt-Toth, 2017; Ben-Amar et al., 2017; Birindelli et al., 2018; Burke et al., 2019; Yeh, 2019; Uyar et al., 2020, 2021
LEV	**Leverage Ratio**: The ratio of total liabilities to total assets.	Control	Velte, 2016a, 2016b; Birindelli et al., 2018; Fatemi et al., 2018; Burke et al.,

			2019; Nekhili et al., 2019; Uyar et al., 2020; Shahbaz et al., 2020; Uyar et al., 2021; Govindan et al., 2021
ROA	**Return on Assets:** Net income (after taxes) to total assets	Control	Velte, 2016a, 2016b; Fuente et al., 2017; Fatemi et al., 2018; Burke et al., 2019; Yeh, 2019; Shahbaz et al., 2020; Uyar et al., 2020, 2021; Govindan et al., 2021.
FFP	**Free Float Percentage:** Float percentage of total shares outstanding shows the percentage of shares outstanding that trade freely.	Control	Shahbaz et al., 2020; Uyar et al., 2020, 2021; Govindan et al., 2021.

The study's aim is to determine the impact of board structure on the ESG performance of firms in the as Oil-gas-coal sector. The following models have been prepared for this purpose:

$ESG\ Performance\ (ENV,\ SOC,\ GOV)_{it} = \alpha + \beta_1 Bsize_{it} + \beta_2 \mathrm{Gdiversity}_{it} + \beta_3 BoardBS_{it} + \beta_4 BoardInd_{it} + \beta_5 \mathrm{ACExp}_{it} + \beta_6 CEOduality_{it} + \beta_7 \mathrm{CSRcommittee}_{it} + \beta_8 \mathrm{FirmSize}_{it} + \beta_9 LEV_{it} + \beta_{10} ROA_{it} + \beta_{11} FFP_{it} + \varepsilon$

ESG scores describe individual ESG, ENV, SOC, and GOV scores. Therefore, there are 4 different models in this study.

Findings

This section includes the results of descriptive statistics, correlation analysis, and regression analysis of the models.

Descriptive Statistics

Table 3 shows the descriptive statistics of the variables used in the study.

Table 3: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ESG	2720	40.88	21.79	0.26	88.11
ENV	2720	35.13	27.81	0	96.44
SOC	2720	40.06	24.86	0.16	97.15
GOV	2720	49.98	23.69	0.04	98.15
Bsize	2619	9.53	3.21	3	21
Bdiversity	2603	12.60	12.09	0	50
BoardBS	2720	0.94	0.23	0	1
BoardInd	2602	61.52	24.66	0	100
ACExp	2720	0.78	0.41	0	1
CEOduality	2720	0.36	0.48	0	1
CSRcommittee	2807	0.59	0.49	0	1
FirmSize	3748	15.07	1.77	11.46	18.35
LEV	3742	26.88	22.27	0	236.49
ROA	3691	1.75	10.8	-50.72	21.65
FFP	3543	68.33	27.05	3	100

As seen in Table 3, the mean of the ESG score is 40.88, the standard deviation is 21.79, and the scores vary between 0.26 and 88.11. ENV score's mean is 35.13 with 27.81 standard deviation, SOC score's mean is 40.06 with 24.86 standard deviation, and GOV score's mean is 49.98 with 23.69 standard deviation. The scores of these three dimensions range from 0 to 98.15. Bsize variable's mean is 9.53, its standard deviation is 3.21. The mean of the Bdiversity variable is 12.6 with 12.09 standard deviations. The mean for BoardBS is 9.53, the mean for BoardInd is 61.52, the mean for ACExp is 0.78, the mean for CEOduality is 0.36, the mean for

CSRcommittee is 0.59, the mean for FirmSize is 15.07, the mean for LEV is 26.88, the mean for ROA is 1.75, and the mean for FFP is 68.33.

Correlation Analysis

Table 4 contains information about the Pearson correlation coefficients and their significance levels:

Table 4: Correlation Table

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) ESG	1														
(2) ENV	0.928***	1													
(3) SOC	0.924***	0.836***	1												
(4) GOV	0.612***	0.385***	0.370***	1											
(5) Bsize	0.495***	0.515***	0.473***	0.175***	1										
(6) Bdiversity	0.319***	0.268***	0.279***	0.274***	0.001	1									
(7) BoardBS	-0.107***	-0.140***	-0.132***	0.067***	-0.248***	0.054***	1								
(8) BoardInd	-0.012	-0.138***	-0.083***	0.325***	-0.176***	0.144***	0.237***	1							
(9) ACExp	0.003	-0.075***	-0.026	0.177***	-0.015	0.158***	0.111***	0.396***	1						
(10) CEOduality	-0.078***	-0.060***	-0.033*	-0.132***	0.078***	-0.037*	-0.005	0.127***	0.196***	1					
(11) CSRcommittee	0.527***	0.486***	0.484***	0.340***	0.294***	0.210***	-0.023	0.073***	0.093***	-0.043**	1				
(12) FirmSize	0.618***	0.628***	0.542***	0.327***	0.585***	0.107***	-0.115***	-0.052***	-0.031	0.084***	0.377***	1			
(13) LEV	0.052***	0.043**	0.042**	0.051***	0.046**	0.056***	-0.001	0.072***	0.048**	0.069***	0.036*	0.106***	1		
(14) ROA	0.176***	0.189***	0.158***	0.070***	0.161***	0.000	-0.042**	-0.120***	-0.030	-0.008	0.080***	0.223***	-0.244***	1	
(15) FFP	-0.099***	-0.163***	-0.149***	0.170***	-0.149***	0.087***	0.193***	0.542***	0.153***	0.069***	0.040**	-0.105***	0.014	-0.140***	1

**** p<0.01, ** p<0.05, * p<0.1*

Empirical Results

The F test, Likelihood Ratio (LR), Lagrange Multiplier (LM), and Hausman tests have been used to select estimators. As a result, the fixed effects estimator has been found to be valid. To account for heteroscedasticity, autocorrelation, and inter-unit correlation, a robust standard error estimator has been used. Robust standard errors can be used without issue when the sample size is large. (Wooldridge, 2002) The values of the variance inflation factor (VIF) have been checked for the multicollinearity problem. And it has been discovered that the values ranged from 1 to 2. There is no multicollinearity between the variables when VIF is less than 10 (Orhunbilge, 2002). To avoid the effect of extreme values, the values outside the range of 1% to 99.9% of the data have been revised (winsorised means) based on the central tendency mean. Table 5 shows the results of the regression analyzes of four models established within the study.

Table 5: Regression Analysis Results

	(1) ESG	(2) ENV	(3) SOC	(4) GOV
Bsize	0.413**	0.563**	0.287	0.398
	(0.190)	(0.267)	(0.218)	(0.337)
Gdiversity	0.019	-0.020	-0.019	0.141**
	(0.042)	(0.058)	(0.046)	(0.061)
BoardBS	1.318	0.602	2.182	1.570
	(1.163)	(1.883)	(1.895)	(1.946)
BoardInd	0.054**	0.015	-0.032	0.237***
	(0.024)	(0.034)	(0.028)	(0.042)
ACExp	0.589	-1.48	-0.142	4.487***
	(0.761)	(1.043)	(0.764)	(1.365)
CEOduality	-3.43***	-1.532	-2.151*	-8.035***
	(0.975)	(1.561)	(1.259)	(1.371)
CSRcommittee	7.32***	9.54***	6.571***	5.376***
	(1.130)	(1.634)	(1.363)	(1.829)
FirmSize	1.834**	3.173**	0.992	1.348
	(0.861)	(1.324)	(0.924)	(1.221)
LEV	0.033	0.049*	0.007	0.044
	(0.021)	(0.029)	(0.026)	(0.034)
ROA	0.002	0.024	-0.003	-0.025
	(0.027)	(0.043)	(0.027)	(0.045)
FFP	0.035	0.034	0.049	0.018
	(0.021)	(0.028)	(0.031)	(0.037)
cons	-7.444	-34.302*	9.629	1.578
	(12.939)	(19.868)	(14.188)	(19.112)
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	2475	2475	2475	2475
R-squared	0.328	0.246	0.265	0.163

Robust Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

Table 5 shows the regression results for models built with ESGP in column 1, while models built with ENV, SOC, and GOV sub-dimensions are shown in columns 2, 3, and 4, respectively. For all analyses, the fixed effects regression model has been used. F statistical values are significant in all analyses.

The findings in columns 1, 2, 3, and 4 show that board structure has a statistically significant impact on ESG, ENV, SOC, and GOV performance. Bsize has a positive and significant relationship with ESG and ENV performance. The H_1 hypothesis is supported for the ESG and ENV performances. Gdiversity and GOV performance have a positive and significant relationship. For the GOV performance, the H2 hypothesis can be accepted in this case. In all variables, the H_3 hypothesis has been rejected. There is a positive and significant relationship between BoardInd and ESG and GOV performance. In this case, the H_4 hypothesis has been accepted for the ESG and GOV performance. A positive and significant relationship was found between ACExp and GOV performance. In this case, the H5 hypothesis has been accepted for GOV performance. CEOduality has a negative and significant relationship with ESG, SOC, and GOV performance. In this case, the H6 hypothesis has been accepted for the ESG, SOC, and GOV performance. There is a positive and significant relationship between CSRcommittee and ESG, ENV SOC, and GOV performance. In this case, the H6 hypothesis can be accepted for all variables.

DISCUSSION AND CONCLUSION

This study examines the relationships between board structure (board diversity, board independence, board size, audit committee expertise, CEO duality and CSR committee) and ESG performances in the oil-gas-coal sector from 2010 to 2019. Data from Refinitiv's Thomson Reuters ASSET4, EIKON, and Datastream datasets have been used in this study to investigate the proposed impacts and relationships. The study's findings reveal the proposed impact of board structure on ESG performance. According to the findings of the analysis, the variables of

the board structure have a statistically significant effect on the ESG and Environmental, Social, and Corporate Governance sub-dimensions. In other words, the regression analyses conducted in the determined sector and observation period provide evidence that the board structure of the companies has an impact on the ESG performances and the Environmental, Social, and Corporate Governance sub-dimensions.

According to results, board size has a positive and significant relationship with ESG and environmental performance. Gender diversity and governance performance have a positive and significant relationship. There is a positive and significant relationship between board indipendence and ESG and governance performance. A positive and significant relationship was found between audit committee and governance performance. CEO duality has a negative and significant relationship with ESG, social and governance performance. There is a positive and significant relationship between CSR committee and ESG, environmental, social and governance performance. All results are consistent with relevant literature and theories.

The results should be interpreted in light of three major limitations. This study examined into oil-gas-coal companies. Furthermore, the sample covers the years 2010 to 2019. Therefore, the results may not be generalizable to other industries or be valid prior to 2010. The results' legitimacy could be confirmed in other ESG-sensitive sectors. It is recommended that similar studies be conducted in the future for the same sector or at the level of different sectors, taking into account country-based factors. Furthermore, the relationship between ESG, financial performance, and board structure can be put into question in future research.

REFERENCES

Ahmed, K., Hossain, M., and Adams, M. B. (2006). The Effects of Board Composition and Board Size on the Informativeness of Annual Accounting Earnings. *Corporate Governance: An International Review*, 14(5), 418–431. https://doi.org/10.1111/j.1467-8683.2006.00515.x

Allouche, J., and Laroche, P. (2005). A Meta-Analytical Investigation Of The Relationship Between Corporate Social And Financial Performance. *Revue de Gestion Des Ressources Humaines*, 57, 1-29. https://hal.archives-ouvertes.fr/hal-00923906/ adresinden erişildi.

Amran, A., Lee, S., and Devi, S. (2014). The Influence of Governance Structure and Strategic Corporate Social Responsibility Toward Sustainability Reporting Quality. *Business Strategy and the Environment*, 23(4), 217-235. https://doi.org/10.1002/bse.1767

Andres, P. D., Azofra, V., and Lopez, F. (2005). Corporate Boards in OECD Countries: Size, composition, functioning and effectiveness. *Corporate Governance: An International Review*, 13(2), 197-210. https://doi.org/10.1111/j.1467-8683.2005.00418.x

Arayssi, M., Dah, M., and Jizi, M. (2016). Women On Boards, Sustainability Reporting And Firm Performance. *Sustainability Accounting, Management and Policy Journal*, 7, 376–401. https://doi.org/10.1108/SAMPJ-07-2015-0055

Arena, C., Bozzolan, S., and Michelon, G. (2015). Environmental Reporting: Transparency to Stakeholders or Stakeholder Manipulation? An Analysis of Disclosure Tone and the Role of the Board of Directors. *Corporate Social Responsibility and Environmental Management*, 22(6), 346–361. https://doi.org/10.1002/csr.1350

Barnea, A., and Rubin, A. (2010). Corporate Social Responsibility as a Conflict Between Shareholders. *Journal of Business Ethics*, 97(1), 71–86. https://doi.org/10.1007/s10551-010-0496-z

Ben-Amar, W., Chang, M., and McIlkenny, P. (2017). Board Gender Diversity and Corporate Response to Sustainability Initiatives: Evidence from the Carbon Disclosure Project. *Journal of Business Ethics*, 142(2), 369–383. https://doi.org/10.1007/s10551-015-2759-1

Bennouri, M., Chtioui, T., Nagati, H., and Nekhili, M. (2018). Female Board Directorship And Firm Performance: What Really Matters? *Journal of Banking & Finance*, 88, 267–291. https://doi.org/10.1016/j.jbankfin.2017.12.010

Birindelli, G., Dell'Atti, S., Iannuzzi, A. P., and Savioli, M. (2018). Composition and Activity of the Board of Directors: Impact on ESG Performance in the Banking System. *Sustainability*, 10(12), 4699. https://doi.org/10.3390/su10124699

Borghesi, R., Houston, J. F., and Naranjo, A. (2014). Corporate Socially Responsible Investments: CEO Altruism, Reputation, And Shareholder Interests. *Journal of Corporate Finance*, 26, 164–181. https://doi.org/10.1016/j.jcorpfin.2014.03.008

Brown, W. O., Helland, E., and Smith, J. K. (2006). Corporate Philanthropic Practices. *Journal of Corporate Finance*, 12(5), 855–877. https://doi.org/10.1016/j.jcorpfin.2006.02.001

Burke, J. J., Hoitash, R., and Hoitash, U. (2019). The Heterogeneity of Board-Level Sustainability Committees and Corporate Social Performance. *Journal of Business Ethics*, 154(4), 1161–1186. https://doi.org/10.1007/s10551-017-3453-2

Carter, D. A., Simkins, B. J., and Simpson, W. G. (2003). Corporate Governance, Board Diversity, and Firm Value. *Financial Review*, 38(1), 33–53. https://doi.org/10.1111/1540-6288.00034

Carver, J. (1990). *Boards That Make a Difference: A New Design for Leadership in Nonprofit and Public Organizations. Jossey-Bass Nonprofit Sector Series and the Jossey-Bass Public Administration Series*. Jossey-Bass, Inc.

Chen, J. C., and Roberts, R. W. (2010). Toward a More Coherent Understanding of the Organization–Society Relationship: A Theoretical Consideration for Social and Environmental Accounting Research. *Journal of Business Ethics*, 97(4), 651–665. https://doi.org/10.1007/s10551-010-0531-0

Cheng, E. C. M., and Courtenay, S. M. (2006). Board Composition, Regulatory Regime And Voluntary Disclosure. *The International Journal of Accounting*, 41(3), 262–289. https://doi.org/10.1016/j.intacc.2006.07.001

Coffey, B. S., and Wang, J. (n.d.). *Board Diversity and Managerial Control as Predictors of Corporate Social Performance*. 17(14), 1595-1603. https://link.springer.com/article/10.1023/A:1005748230228 adresinden erişildi.

Cucari, N., Falco, S. E. D., and Orlando, B. (2018). Diversity of Board of Directors and Environmental Social Governance: Evidence from Italian Listed Companies. *Corporate Social Responsibility and Environmental Management*, 25(3), 250–266.

Dass, N., Kini, O., Nanda, V., Onal, B., and Wang, J. (2014). Board Expertise: Do Directors from Related Industries Help Bridge the Information Gap? *The Review of Financial Studies*, 27(5), 1533–1592. https://doi.org/10.1093/rfs/hht071

De Beaufort, V., and Summers, L. (2013). Women and Corporate Governance: Towards a New Model! In *ESSEC Working Papers* (No. WP1312; ESSEC Working Papers). ESSEC

Research Center, ESSEC Business School. https://ideas.repec.org/p/ebg/essewp/dr-13012.html

Dey, A., LaGuardia, P., and Srinivasan, M. (2011). Building Sustainability In Logistics Operations: A Research Agenda. *Management Research Review*, 34(11), 1237–1259. https://doi.org/10.1108/01409171111178774

Donaldson, T., and Preston, L. E. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *Academy of Management Review*, 20(1), 65–91. https://doi.org/10.5465/amr.1995.9503271992

Dowling, J., and Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior. *Pacific Sociological Review*, 18(1), 122–136. https://doi.org/10.2307/1388226

Dunn, P., and Sainty, B. (2009). The Relationship Among Board Of Director Characteristics, Corporate Social Performance And Corporate Financial Performance. *International Journal of Managerial Finance*, 5(4), 407–423. https://doi.org/10.1108/17439130910987558

Eberhardt-Toth, E. (2017). Who should be on a board corporate social responsibility committee? *Journal of Cleaner Production*, 140, 1926–1935. https://doi.org/10.1016/j.jclepro.2016.08.127

Eccles, R. G., Ioannou, I., and Serafeim, G. (2014). The Impact of Corporate Sustainability on Organizational Processes and Performance. *Management Science*, *60*(11), 2835–2857. https://doi.org/10.1287/mnsc.2014.1984

Erhardt, N. L., Werbel, J. D., and Shrader, C. B. (2003). Board of Director Diversity and Firm Financial Performance. *Corporate Governance: An International Review*, 11(2), 102–111. https://doi.org/10.1111/1467-8683.00011

Fama, E. F. (1980). Agency Problems and the Theory of the Firm. *Journal of Political Economy*, 88(2), 288–307. https://doi.org/10.1086/260866

Fama, E. F., and Jensen, M. C. (1983). Separation of Ownership and Control. *The Journal of Law & Economics*, 26(2), 301–325.

Fatemi, A., Glaum, M., and Kaiser, S. (2018). ESG Performance and Firm Value: The Moderating Role Of Disclosure. *Global Finance Journal*, 38, 45–64. https://doi.org/10.1016/j.gfj.2017.03.001

Forker, J. J. (1992). Corporate Governance and Disclosure Quality. *Accounting and Business Research*, 22(86), 111–124. https://doi.org/10.1080/00014788.1992.9729426

Foster, D., and Jonker, J. (2005). Stakeholder relationships: The Dialogue Of Engagement. *Corporate Governance: The International Journal of Business in Society*, 5(5), 51–57. https://doi.org/10.1108/14720700510630059

Freeman, R. E. (2010). *Strategic Management: A Stakeholder Approach*. Cambridge University Press.

Fuente, J. A., García-Sánchez, I. M., and Lozano, M. B. (2017). The Role of The Board of Directors In The Adoption Of GRI Guidelines For The Disclosure of CSR information. *Journal of Cleaner Production*, 141, 737–750. https://doi.org/10.1016/j.jclepro.2016.09.155

Gallego-Álvarez, I., and Pucheta-Martínez, M. C. (2020). Environmental Strategy In The Global Banking Industry Within The Varieties Of Capitalism Approach: The Moderating Role Of Gender Diversity And Board Members With Specific Skills. *Business Strategy and the Environment*, 29(2), 347–360. https://doi.org/10.1002/bse.2368

Gallego-Álvarez, Prof. I., and Ortas, Prof. E. (2017). Corporate Environmental Sustainability Reporting In The Context Of National Cultures: A Quantile Regression Approach. *International Business Review*, 26(2), 337–353. https://doi.org/10.1016/j.ibusrev.2016.09.003

García-Sánchez, I.-M., Martínez-Ferrero, J., and García-Meca, E. (2018). Board of Directors and CSR in Banking: The Moderating Role of Bank Regulation and Investor Protection Strength. *Australian Accounting Review*, 28(3), 428–445. https://doi.org/10.1111/auar.12199

Gennari, F. (2019). How to Lead the Board of Directors to a Sustainable Development of Business with the CSR Committees. *Sustainability*, 11(24), 6987. https://doi.org/10.3390/su11246987

Goodstein, J., and Boeker, W. (1991). Turbulence at the Top: A New Perspective on Governance Structure Changes and Strategic Change. *Academy of Management Journal*, 34(2), 306–330. https://doi.org/10.5465/256444

Govindan, K., Kilic, M., Uyar, A., and Karaman, A. S. (2021). Drivers And Value-Relevance of CSR Performance In The Logistics Sector: A Cross-Country Firm-Level Investigation. *International Journal of Production Economics*, 231, 1-14. https://doi.org/10.1016/j.ijpe.2020.107835

Govindan, K., Shankar, M., and Kannan, D. (2018). Supplier Selection Based On Corporate Social Responsibility Practices. *International Journal of Production Economics*, 200, 353–379. https://doi.org/10.1016/j.ijpe.2016.09.003

Gray, R., Kouhy, R., and Lavers, S. (1995). Corporate Social And Environmental Reporting: A Review Of The Literature and A Longitudinal Study Of UK Disclosure. *Accounting, Auditing & Accountability Journal*, 8(2), 47–77. https://doi.org/10.1108/09513579510146996

Guest, P. M. (2009). The impact of board size on firm performance: Evidence from the UK. *The European Journal of Finance*, 15(4), 385–404. https://doi.org/10.1080/13518470802466121

Hafsi, T., and Turgut, G. (2013). Boardroom Diversity and its Effect on Social Performance: Conceptualization and Empirical Evidence. *Journal of Business Ethics*, 112(3), 463–479. https://doi.org/10.1007/s10551-012-1272-z

Haniffa, R., and Hudaib, M. (2006). Corporate Governance Structure and Performance of Malaysian Listed Companies. *Journal of Business Finance & Accounting*, 33(7–8), 1034–1062. https://doi.org/10.1111/j.1468-5957.2006.00594.x

Hart, S. L. (1995). A Natural-Resource-Based View of the Firm. *Academy of Management Review*, 20(4), 986–1014. https://doi.org/10.5465/amr.1995.9512280033

Hawkins, D. (2006). *Corporate Social Responsibility: Balancing Tomorrow's Sustainability and Today's Profitability*. Springer.

He, Z., Chen, P., Liu, H., and Guo, Z. (2017). Performance Measurement System And Strategies For Developing Low-Carbon Logistics: A Case Study In China. *Journal of Cleaner Production*, 156, 395–405. https://doi.org/10.1016/j.jclepro.2017.04.071

Hillman, A., Canella, A. A., and Harris, I. C. (2002). Women And Racial Minorities In The Boardroom: How Do Directors Differ? *Journal of Management*, 28(6), 747–763. https://doi.org/10.1016/S0149-2063(02)00192-7

Htay, S. N. N., Rashid, H. M. A., Adnan, M. A., and Meera, A. K. M. (2012). Impact of Corporate Governance on Social and Environmental Information Disclosure of Malaysian Listed Banks: Panel Data Analysis. *Asian Journal of Finance and Accounting*, 4(1), 1–24. https://doi.org/10.5296/ajfa.v4i1.810

Humphrey, J., Lee, D., and Shen, Y. (2010). *The Independent Effects of Environmental, Social and Governance Initiatives on the Performance of UK Firms* (SSRN Scholarly Paper ID 1663444). Social Science Research Network. https://doi.org/10.2139/ssrn.1663444

Huse, M., Nielsen, S. T., and Hagen, I. M. (2009). Women and Employee-Elected Board Members, and Their Contributions to Board Control Tasks. *Journal of Business Ethics*, 89(4), 581–597. https://doi.org/10.1007/s10551-008-0018-4

Ibrahim, A. H., and Hanefah, M. M. (2016). Board diversity and corporate social responsibility in Jordan. *Journal of Financial Reporting and Accounting*, 14(2), 279–298. https://doi.org/10.1108/JFRA-06-2015-0065

Ibrahim, N. A., Howard, D. P., and Angelidis, J. P. (2003). Board Members in the Service Industry: An Empirical Examination of the Relationship Between Corporate Social Responsibility Orientation and Directorial Type. *Journal of Business Ethics*, 47(4), 393–401. https://doi.org/10.1023/A:1027334524775

Jamali, D. (2008). A Stakeholder Approach to Corporate Social Responsibility: A Fresh Perspective into Theory and Practice. *Journal of Business Ethics*, 82(1), 213–231. https://doi.org/10.1007/s10551-007-9572-4

Jensen, M. C. (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *The Journal of Finance*, 48(3), 831–880. https://doi.org/10.1111/j.1540-6261.1993.tb04022.x

Jensen, M. C., and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Jizi, M. (2017). The Influence of Board Composition on Sustainable Development Disclosure. *Business Strategy and the Environment*, 26(5), 640–655. https://doi.org/10.1002/bse.1943

Jizi, M. I., Salama, A., Dixon, R., and Stratling, R. (2014). Corporate Governance and Corporate Social Responsibility Disclosure: Evidence from the US Banking Sector. *Journal of Business Ethics*, 125(4), 601–615. https://doi.org/10.1007/s10551-013-1929-2

Johnson, S. G., Schnatterly, K., and Hill, A. D. (2013). Board Composition Beyond Independence: Social Capital, Human Capital, and Demographics. *Journal of Management*, 39(1), 232–262. https://doi.org/10.1177/0149206312463938

Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, 20(2), 404–437. https://doi.org/10.5465/amr.1995.9507312924

Kao, E. H., Yeh, C.-C., Wang, L.-H., and Fung, H.-G. (2018). The relationship between CSR and performance: Evidence in China. *Pacific-Basin Finance Journal*, 51, 155–170. https://doi.org/10.1016/j.pacfin.2018.04.006

Kesner, I. F. (1988). Directors' Characteristics and Committee Membership: An Investigation of Type, Occupation, Tenure, and Gender. *The Academy of Management Journal*, 31(1), 66–84. https://doi.org/10.2307/256498

Krishnan, G., and Visvanathan, G. (2009). Do Auditors Price Audit Committee's Expertise? The Case of Accounting versus Nonaccounting Financial Experts. *Journal of Accounting, Auditing and Finance*, 24(1), 115–144. https://doi.org/10.1177/0148558X0902400107

Laksmana, I. (2008). Corporate Board Governance and Voluntary Disclosure of Executive Compensation Practices*. *Contemporary Accounting Research*, 25(4), 1147–1182. https://doi.org/10.1506/car.25.4.8

Liao, L., Luo, L., and Tang, Q. (2015). Gender Diversity, Board Independence, Environmental Committee And Greenhouse Gas Disclosure. *The British Accounting Review*, 47(4), 409–424. https://doi.org/10.1016/j.bar.2014.01.002

Lo, S.-F., and Sheu, H.-J. (2007). Is Corporate Sustainability a Value-Increasing Strategy for Business? *Corporate Governance: An International Review*, 15(2), 345–358. https://doi.org/10.1111/j.1467-8683.2007.00565.x

Longo, M., Mura, M., and Bonoli, A. (2005). Corporate Social Responsibility And Corporate Performance: The Case of Italian SMEs. *Corporate Governance: The International Journal of Business in Society*, 5(4), 28–42. https://doi.org/10.1108/14720700510616578

Luoma, P., and Goodstein, J. (1999). Research Notes. Stakeholders and Corporate Boards: Institutional Influences on Board Composition and Structure. *Academy of Management Journal*, *42*(5), 553–563. https://doi.org/10.5465/256976

Mahmood, Z., Kouser, R., Ali, W., Ahmad, Z., and Salman, T. (2018). Does Corporate Governance Affect Sustainability Disclosure? A Mixed Methods Study. *Sustainability*, 10(1), 207. https://doi.org/10.3390/su10010207

Mallin, C. A., and Michelon, G. (2011). Board Reputation Attributes And Corporate Social Performance: An Empirical Investigation of the US Best Corporate Citizens. *Accounting and Business Research*, 41(2), 119–144. https://doi.org/10.1080/00014788.2011.550740

Michelon, G., and Parbonetti, A. (2012). The Effect Of Corporate Governance On Sustainability Disclosure. *Journal of Management & Governance*, 16(3), 477–509. https://doi.org/10.1007/s10997-010-9160-3

Mitchell, R. K., Agle, B. R., and Wood, D. J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of who and What Really Counts. *Academy of Management Review*, 22(4), 853–886. https://doi.org/10.5465/amr.1997.9711022105

Naeem, N. (2021). The Relationship Between The ESG Performance And Financial Performance Of Environmentally Sensitive Industries; A Comparison Between Emerging And Developed Markets. Istanbul Commerce University Graduate School of Finance Master Thesis.

Naciti, V. (2019). Corporate Governance And Board Of Directors: The Effect Of A Board Composition On Firm Sustainability Performance. *Journal of Cleaner Production*, 237, 117727. https://doi.org/10.1016/j.jclepro.2019.117727

Nekhili, M., Boukadhaba, A., Nagati, H., and Chtioui, T. (2019). ESG Performance And Market Value: The Moderating Role of Employee Board Representation. *The International Journal of Human Resource Management*, 32(14), 3061-3087. https://doi.org/10.1080/09585192.2019.1629989

Nekhili, M., Gull, A. A., Chtioui, T., and Radhouane, I. (2020). Gender-Diverse Boards And Audit Fees: What Difference Does Gender Quota Legislation Make? *Journal of Business Finance & Accounting*, 47(1–2), 52–99. https://doi.org/10.1111/jbfa.12409

OECD. (2004). *OECD principles of corporate governance: 2004* (rev. version). OECD.

Ortas, E., Álvarez, I., Jaussaud, J., and Garayar, A. (2015). The Impact Of Institutional And Social Context On Corporate Environmental, Social And Governance Performance Of Companies Committed To Voluntary Corporate Social Responsibility Initiatives. *Journal of Cleaner Production*, 108, 673–684. https://doi.org/10.1016/j.jclepro.2015.06.089

Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., Purnell, L., and de Colle, S. (2010). Stakeholder Theory: The State of the Art. *The Academy of Management Annals*, 4(1), 403–445. https://doi.org/10.1080/19416520.2010.495581

Pathan, S. (2009). Strong Boards, CEO Power And Bank Risk-Taking. *Journal of Banking & Finance*, 33(7), 1340–1350. https://doi.org/10.1016/j.jbankfin.2009.02.001

Peng, L. S., and Isa, M. (2020). Environmental, Social and Governance (ESG) Practices And Performance In Shariah Firms: Agency or Stakeholder Theory? *Asian Academy of Management Journal of Accounting and Finance (AAMJAF)*, *16*(1), 1–34.

Pfeffer, J., and Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective* (SSRN Scholarly Paper ID 1496213). Social Science Research Network. https://papers.ssrn.com/abstract=1496213

Preston, L. E., and Donaldson, T. (1999). Dialogue. *Academy of Management Review*, 24(4), 619–620. https://doi.org/10.5465/amr.1999.12600806

Roberts, J., McNulty, T., and Stiles, P. (2005). Beyond Agency Conceptions of the Work of the Non-Executive Director: Creating Accountability in the Boardroom. *British Journal of Management*, 16(1), 5–26. https://doi.org/10.1111/j.1467-8551.2005.00444.x

Roy, A., and Goll, I. (2014). Predictors of various facets of sustainability of nations: The role of cultural and economic factors. *International Business Review*, 23(5), 849–861. https://doi.org/10.1016/j.ibusrev.2014.01.003

Salvioni, D. M., and Gennari, F. (2017). CSR, Sustainable Value Creation and Shareholder Relations. *Symphonya. Emerging Issues in Management*, 1, 36–49.

Schuler, D. A., and Cording, M. (2006). A Corporate Social Performance–Corporate Financial Performance Behavioral Model for Consumers. *Academy of Management Review*, 31(3), 540–558. https://doi.org/10.5465/amr.2006.21318916

Shahbaz, M., Karaman, A. S., Kilic, M., and Uyar, A. (2020). Board attributes, CSR engagement, and corporate performance: What is the nexus in the energy sector? *Energy Policy*, 143, 111582. https://doi.org/10.1016/j.enpol.2020.111582

Shaukat, A., Qiu, Y., and Trojanowski, G. (2016). Board Attributes, Corporate Social Responsibility Strategy, and Corporate Environmental and Social Performance. *Journal of Business Ethics*, 135(3), 569–585. https://doi.org/10.1007/s10551-014-2460-9

Siciliano, J. I. (1996). The relationship of board member diversity to organizational performance. *Journal of Business Ethics*, 15(12), 1313–1320. https://doi.org/10.1007/BF00411816

Stuebs, M., and Sun, L. (2015). Corporate governance and social responsibility. *International Journal of Law and Management*, 57(1), 38–52. https://doi.org/10.1108/IJLMA-04-2014-0034

Terjesen, S., Sealy, R., and Singh, V. (2009). Women Directors on Corporate Boards: A Review and Research Agenda. *Corporate Governance: An International Review*, 17(3), 320–337. https://doi.org/10.1111/j.1467-8683.2009.00742.x

Uyar, A., Kilic, M., Koseoglu, M. A., Kuzey, C., and Karaman, A. S. (2020). The Link Among Board Characteristics, Corporate Social Responsibility Performance, And Financial Performance: Evidence From The Hospitality And Tourism Industry. *Tourism Management Perspectives*, 35, 100714. https://doi.org/10.1016/j.tmp.2020.100714

Uyar, A., Kuzey, C., Kiliç, M., and Karaman, A. S. (2021). *Board Structure, Financial Performance, Corporate Social Responsibility Performance, CSR Committee, and CEO Duality: Disentangling The Connection In Healthcare*. 28(6), 1730-1748. https://doi.org/10.1002/CSR.2141

Smith, J., Adhikari, A., and Tondkar, R. (2005). Exploring Differences In Social Disclosures Internationally: A Stakeholder Perspective. *Journal of Accounting and Public Policy*, 24, 123–151. https://doi.org/10.1016/j.jaccpubpol.2004.12.007

Vasconcelos, I. F. F. G. de, Alves, M. A., and Pesqueux, Y. (2012). Responsabilidade Social Corporativa E Desenvolvimento Sustentável: Olhares Habermasianos. *Revista de Administração de Empresas*, 52, 148–152. https://doi.org/10.1590/S0034-75902012000200002

Velte, P. (2016a). Women on Management Board and ESG Performance. *Journal of Global Responsibility*, *7*(1), 98–109. https://doi.org/10.1108/JGR-01-2016-0001

Velte, P. (2016b). Sustainable management compensation and ESG performance – the German case. *Problems and Perspectives in Management*, 14(4), 17–24. https://doi.org/10.21511/ppm.14(4).2016.02

Xie, B., Davidson, W., and DaDalt, P. J. (2003). Earnings Management And Corporate Governance: The Role Of The Board And The Audit Committee. *Journal of Corporate Finance*, 9(3), 295–316.

Yeh, C. M. (2019). Ownership Structure And Firm Performance Of Listed Tourism Firms. *International Journal of Tourism Research*, 21(2), 165–179. https://doi.org/10.1002/jtr.2250

Zahra, S., and Pearce, J. (1989). Boards of Directors and Corporate Financial Performance: A Review and Integrative Model. *Journal of Management - J Manage*, 15, 291–334. https://doi.org/10.1177/014920638901500208