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# The influence of corporate governance and shareholding structure on corporate social responsibility: The key role of executive compensation

**Ahmed A. Sarhan**[1,2] | **Basil Al-Najjar**[3]

[1]Department of Accounting and Financial Management, Newcastle Business School, University of Northumbria, Newcastle, UK

[2]Department of Accounting, Faculty of Commerce, Zagazig University, Zagazig, Egypt

[3]Department of Accounting, Finance and Banking, Manchester Metropolitan Business School, Manchester Metropolitan University, Manchester, UK

**Correspondence**
Ahmed A. Sarhan, Department of Accounting and Financial Management, Newcastle Business School, University of Northumbria, Newcastle, UK.
Email: ahmed.sarhan@northumbria.ac.uk

## Abstract

This paper aims to contribute to the extant literature on corporate social responsibility and corporate governance by empirically examining the effect of firm governance and shareholding structure (and their interaction) on corporate social responsibility performance. Our study is conducted within a unique context of improving social responsibility policies, regulations, and management. In particular, we examine how corporate governance practices and both outside (institutional and pension) and inside (managerial) shareholdings impact corporate social responsibility activities. Using one of the largest UK data sets to date, consisting of FTSE 350 nonfinancial listed firms for the period from 2002 to 2016, our results provide evidence that corporate governance has a positive impact on corporate social responsibility. Institutional (indicating strong monitoring role) and managerial (proxy for alignment of interests between insiders and outsiders) shareholdings are negatively associated with corporate social responsibility performance. Our additional analyses provide empirical evidence that compensation structure, as a corporate governance tool, aligns management decisions toward engaging in corporate social responsibility activities and corporate strategic sustainable objectives. Additionally, our results suggest a substitutive relationship of institutional shareholding with corporate governance practices. There is a complementary relationship of managerial shareholding with corporate governance practices in influencing corporate social responsibility. Our evidence is robust after controlling for entrenched managerial shareholding, 2SLS and alternative measures of corporate social responsibility performance. The findings provide empirical support for the UK Corporate Governance Code's emphasis on designing effective remuneration policies and practices.

**KEYWORDS**

compensation structure, corporate governance, corporate social responsibility, institutional shareholding, managerial shareholding

## 1 | INTRODUCTION

Over the last few decades, global awareness of social and environmental responsibilities has emerged (Carroll & Buchholtz, 2017; Chen et al., 2019; Desender & Epure, 2021; Nguyen et al., 2020; Parsa et al., 2021; Wang et al., 2015), particularly in developed economies such as the UK and the US (Kemper & Martin, 2010; Saeed et al., 2022). Corporate social responsibility (CSR) considers the effect of firms' performance on the environment and people while keeping profits viable (Blowfield & Murray, 2008; Heal, 2005; Huang & Watson, 2015). CSR performance might improve the reputation and enhance the brand of the firm, as well as the ability to attract new customers. This in turn could increase firms' profitability (Bear et al., 2010; Donker et al., 2008; Fu et al., 2022; Hong et al., 2016; Jones, 1995; Porter & Kramer, 2006; Wang et al., 2015). Likewise, investors, who are keen to protect their investments, consider stock prices sensitivity of firm's reputation (Clark & Hebb, 2005; Fu et al., 2022). Accordingly, CSR activities might lead to long-term values and returns, leading companies to address risky long-term actions that have an adverse social and environmental impact when proposing new investment opportunities (Mallin et al., 2013). In addition, and equally important to value creation, companies respond actively to the pressure of stakeholders (e.g., governments, international organizations and institutional investors) to consider environmental and social activities, particularly after the recent financial crisis (Desender & Epure, 2021; Herbohn et al., 2014; Kemper & Martin, 2010). Therefore, we empirically examine how corporate governance (CG), the pattern of shareholding (external and internal) and CSR activities interact within a large sample of publicly listed UK companies.

Recently, the pattern of shareholding in large firms has witnessed an intense increase in shares owned by institutions (Cox et al., 2004; Desender & Epure, 2021; Lamb & Butler, 2018). Furthermore, the increasing trend of responsible and ethical activities has motivated many investors to consider social, environmental and ethical aspects alongside financial outcomes (U.K. Sustainability Investment and Finance Association (UKSIF), 2018). In addition, institutional investors are subject to a set of social and regulatory pressures, which might have a direct impact on their preferences for investments in different aspects of social performance (Cox et al., 2004). This is because shareholding structure has an impact on firms' power and motivation as well as their decision-making process (Ali et al., 2021; Desender & Epure, 2021; Fu et al., 2022; Oh et al., 2011). Therefore, institutional investors (as key shareholders with a strong monitoring role) may be more involved in CSR investment activities (Fu et al., 2022; Galbreath, 2017; McWilliams & Siegel, 2001) or oppose corporate investment in non-value-added CSR activities.

Moreover, the demand for CSR interacts with other shareholders' interests and motives (Aguilera et al., 2007; Dam & Scholtens, 2012; Desender & Epure, 2021). In particular, managerial and government owners may have strategic, opportunistic and political motives for investing in CSR decisions. From reputational perspectives, there is an argument that managers might over-invest in CSR activities for building their reputations and to show that they are good global citizens (Harjoto & Jo, 2011). For example, a favourable CSR rating can indicate that such managers respect their employees, the environment and society. Then, even if insiders favour such investments, other shareholders might not approve high investments in CSR activities, if these do not enhance a firm's performance and value. This will lead to a conflict of interests between different stockholders (Barnea & Rubin, 2010). Managerial shareholding indicates aligning insiders' interests with those of outside shareholders to take decisions that maximize firm value.

In the same vein, previous literature shows that different shareholders have different motives, objectives and decision-making horizons (e.g., Ali et al., 2021; Hoskisson et al., 2002; Lamb & Butler, 2018; Nguyen et al., 2020). Accordingly, in this paper, we break down shareholders in to two categories: external (institutional and pension fund) and internal (managerial). We employ such classification because (1) institutional investors as well as pension funds do hold large amount of shares and hence are considered substantial shareholders; (2) managers and directors are involved in setting a firm's long-term plans and investment decisions as well as being the most informed about the firm's situation. Given such differences, we expect these shareholders to have different motives related to CSR activities. Therefore, the result of this study will be important for the shareholders themselves as it may reflect their expected influence on firm performance, society as well as the environment. It is also important for firms to create not only shareholder value but also social value (Fu et al., 2022; Harjoto & Jo, 2011). This can help stakeholders to be more effective in directing their efforts (Dam & Scholtens, 2012).

CSR practices could help companies to create a proper image regarding their social and environmental activities to positively manage stakeholders' perceptions and to authorize their existence (Clarkson et al., 2008; Dunbar et al., 2021; Herbohn et al., 2014; Mallin et al., 2013). CSR activities are directly affected by motives as well as value-preference of those who shape the decision-making process. Then, it is important to consider different CG mechanisms that include board characteristics,

executive compensation, and shareholding structure as important determinants of CSR decisions (Cabeza-García et al., 2018; Desender & Epure, 2021; Elmagrhi, Ntim, Elamer, & Zhang, 2019; Fu et al., 2022; Haniffa & Cooke, 2005; Katmon et al., 2019; Khan et al., 2013; Michelon et al., 2015; Nguyen et al., 2020). Despite the fact that CG and CSR activities are well investigated and researched, few studies have empirically examined their interrelationships (Fu et al., 2022; Galbreath, 2010; Helfaya & Moussa, 2017). Thus, we aim to bridge this gap by investigating the impact of effective governance practices and shareholding structure on CSR activities.

Executive compensation is one of the CG mechanisms that may be used to direct executive decisions (Elmagrhi, Ntim, Wang, et al., 2020; Gao et al., 2022; Hong et al., 2016; Jones, 2016; Kemper & Martin, 2010; Mamatzakis & Bagntasarian, 2021; Radu & Smaili, 2021; Sarhan et al., 2019; Tsang et al., 2021). Therefore, companies could employ executive compensation as a channel through which CG may influence CSR activities. The literature examining the association between executive compensation and CSR performance is still evolving (Hong et al., 2016; Mahoney & Thorn, 2006; Radu & Smaili, 2021). Therefore, our study aims to provide additional insights on this relationship by examining the role of long-term compensation (equity pay/stock options) and CSR related compensation policy to encourage CSR activities. Stock options (equity pay), as long-term incentives, could be used to incite firms to undertake strategic plans supporting social and environmental investments (Johnson & Greening, 1999; Mahoney & Thorn, 2006). In particular, there is a recent increase in the use of equity based executive compensation (such as option grants) compared to salary compensation (Mamatzakis & Bagntasarian, 2021). Similarly, an executive compensation scheme that incorporates CSR objectives is a recent development in CG mechanisms (Flammer et al., 2019; Gao et al., 2022; Hong et al., 2016; Ikram et al., 2019; Radu & Smaili, 2021; Tsang et al., 2021). This compensation plan aims to encourage executives to consider a firm's environmental performance, employee satisfaction, preserving ethical actions among other social standards.

Accordingly, our research differs from previous studies and aims to contribute to the CG and CSR literature in different ways. First, we examine the role of effective CG and shareholding structure to safeguard different stakeholders' interests via engaging in CSR activities. CSR performance is directly influenced by the main decision makers' attitudes (Elmagrhi, Ntim, Elamer, & Zhang, 2019; Haniffa & Cooke, 2005; Harjoto & Rossi, 2019; Khan et al., 2013). Therefore, it is, indeed, important to investigate the role of good governance practices (including compensation structure), shareholding structure and their interaction on CSR decisions. Extant CG-CSR literature examined the effect of one/limited CG mechanism(s) on CSR performance at a time. However, our study provides a comprehensive understanding of the impact of different CG mechanisms (and their interaction) on CSR performance. Therefore, future CG studies should not consider shareholding structure in isolation of other CG mechanisms. Our results provide evidence that CG has a positive impact on CSR, whereas institutional and managerial shareholdings are negatively associated with CSR performance. Our additional analyses provide empirical evidence that compensation structure and policy align management decisions toward CSR activities. Therefore, our results contribute to the CG-CSR literature by examining channels on the individual executive level through which CG impacts firms' social and environmental performance. Furthermore, our results support and extend the CSR literature emphasizing the importance of diversifying the executive incentives to include both financial and nonfinancial/value-relevance performance measure such as CSR targets (Flammer et al., 2019; Hong et al., 2016; Ikram et al., 2019; Tsang et al., 2021). Finally, our findings suggest a substitutive relationship of institutional shareholding with CG practices. There is a complementary relationship exists between managerial shareholding and CG practices in influencing CSR.

Second, studies within this context are mainly devoted to the US market (e.g., Barnea & Rubin, 2010; Chen et al., 2019; Flammer et al., 2019; Harjoto & Jo, 2011; Ibrahim et al., 2003; Ikram et al., 2019; Lamb & Butler, 2018; Lopatta et al., 2016; Mallin et al., 2013; McGuire et al., 2003; Tsang et al., 2021), with less attention on the UK case. The UK context is important as the institutional and legal frameworks differ between the UK and the US (Cox et al., 2004). National context such as legal, professional and regulatory bodies could affect firm incentives and pressures to engage with CSR activities (Mahoney & Thorn, 2006). Thus, our study needs to determine whether the past studies' findings are applicable to different countries. Although most of the studies in the US find a neutral or positive effect of institutional shareholding on CSR performance, our study reports a negative link. Therefore, the country context should be considered in future studies.

Third, previous studies have provided theoretical evidence for a positive association between CG, institutional ownership and CSR (e.g., Aguilera et al., 2006) by using questionnaires (e.g., Ibrahim et al., 2003), surveys (e.g., Haque et al., 2016) or interviews (e.g., Jamali et al., 2008; Parsa et al., 2021; Yamak et al., 2018). Therefore, the current study directly responds to the call for providing empirical evidence on these relationships (Aguilera et al., 2006). Fourth, previous studies investigated these

relationships in certain sectors such as service companies (Ibrahim et al., 2003), the health care industry (Bear et al., 2010) and banking sector (Jizi et al., 2014). In addition, they have used a limited number of observations from 1 year (e.g., Dam & Scholtens, 2012; Flammer et al., 2019; Helfaya & Moussa, 2017; Hong et al., 2016; Mallin et al., 2013; McGuire et al., 2003). However, our study employs large panel data covering several industries over 15 years, which enhances the generalizability of our results. Finally, we perform a comprehensive empirical investigation of the association between CG, shareholding structure and CSR activities. Within this investigation, we provide a holistic view of general CSR scores alongside the different dimensions of CSR: environment, social and economic. In so doing, we consider the heterogeneity of such dimensions when investigating CSR activities, as different owners might be associated with specific dimensions in different ways (Barnea & Rubin, 2010; Dam & Scholtens, 2012; David et al., 2007; Prior et al., 2008). Our findings further support the notion that different shareholders are associated differently with dimensions of CSR.

The remainder of the paper is organized as follows. The following sections present the theoretical framework, the literature review and the development of our hypotheses, the research design, discussion of the findings and the results, and the final section concludes.

## 2 | THEORETICAL FRAMEWORK

We aim, in this section, to provide an overview of how CG and shareholding structure either external (institutional and pension fund shareholdings) and/or internal (management shareholding) may affect corporate social performance. Following the global financial crisis, governments, stakeholders (such as, institutional investors and pension funds) and international organizations (such as Organization for Economic Co-operation and Development (OECD), 2004, 2010. and Global Corporate Governance Forum, 2009) have asked companies to be more social and environmental citizens when they make their major investment decisions (Herbohn et al., 2014; Kemper & Martin, 2010). Such investments may lead to enhancing long-term firm value as well (Mallin et al., 2013).

The attention on CSR research has increased recently, relying more on a single explanation, including: agency, legitimacy, stakeholder, resource dependence and institutional theories (Alrazi et al., 2016; Chen & Roberts, 2010; Cooper & Slack, 2015; Herbohn et al., 2014; Shaukat et al., 2016). Researchers argue that adopting one theoretical explanation might limit our understanding of the CSR activities (e.g. Dunbar et al., 2021; Haque et al., 2016; Helfaya & Moussa, 2017). In addition, the different empirical findings of studies examining the association between CG, shareholding structure and CSR led to different theoretical frameworks to explain the role of CG and shareholding structure on CSR decisions (Harjoto & Jo, 2011). Therefore, we adopt three theoretical perspectives to study the relationship between CG, shareholding structure and CSR: agency, stakeholder and resource dependence theories as complementary (not competing) theories. This may enhance our understanding of the association between CG, shareholding structure and CSR.

Agency theory argues that the main objective of the firm is to maximize its value and consequently enhance shareholders' wealth (Jensen & Meckling, 1976). This leads shareholders to be more interested in increasing firm value in the short run and ignoring other objectives, including being more socially responsible toward employees, society and the environment. As suggested by Muttakin et al. (2015), and Prior et al. (2008) organizations that ignore social and environmental activities end with "social problems" and "environmental pollution". Irresponsible corporate activities may have financial implications such as litigation costs, fines and expected cash outflows (e.g. costs related to environmental maintenance) (Dunbar et al., 2021; Helfaya & Moussa, 2017). Executive compensation is considered a CG mechanism that aligns managers' interests with stakeholders' objectives related to a firm's social and environmental performance (Flammer et al., 2019; Hong et al., 2016; Mahoney & Thorn, 2006), thus increasing the firm's value and shareholders' wealth.

Instrumental stakeholder theory, on the other hand, may explain the effect of owners on a firm's decision to be socially responsible (Jones, 1995). Social initiatives might reduce asymmetric information, transaction costs and the cost of capital if such initiatives will lead to the achievement of the goals of such stakeholders. Harjoto and Jo (2011) detect that governance mechanisms are employed alongside CSR activities to reduce conflicts between insiders and non-investing stakeholders. Thus, corporate social performance could be seen as a means of conflict resolution (Harjoto & Jo, 2011; Lopatta et al., 2016). Therefore, based on the instrumental stakeholder viewpoint, CSR is perceived as a mechanism to "neutralize" agency conflicts. Such reduction in agency problems might have a positive impact on a firm's value and performance (Dam & Scholtens, 2012; Lopatta et al., 2016).

Finally, resource dependence theory argues that effective governance mechanisms including board characteristics and shareholding structure allow companies to access wide knowledge, ties and legitimacy (Ali et al., 2021; Cabeza-García et al., 2018; Harjoto & Rossi, 2019; Katmon et al., 2019; Mallin et al., 2013; Pfeffer &

Salancik, 1978). These resources develop the decision-making process including CSR activities (Bear et al., 2010; Cabeza-García et al., 2018; Post et al., 2011).

## 3 | CG, SHAREHOLDING STRUCTURE AND CSR: BACKGROUND AND UK CONTEXT

Firms with effective governance mechanisms may adopt well-informed strategic directions and be more concentrated on long-term strategic planning. Hence, these firms can manage reputational risks (because of investments with negative impacts on society and the environment), and at the same time be able to create new investment opportunities to enhance the firms' value (Chen et al., 2019; Dunbar et al., 2021; Mallin et al., 2013; Rodrigue et al., 2013). Moreover, different governance codes and principles (such as the OECD Principles of CG and the UN Global Compact) require firms to be able to safeguard stakeholders' rights. Additionally, they require the adoption of effective governance mechanisms to adhere to the best practices of corporate ethics and behaviours and be ultimately accountable to the stakeholders (Mallin et al., 2013).

Similarly, the 2018 UK Corporate Governance Code states that the board of directors' role includes "*generating value for shareholders and contributing to wider society*" (p.4). It also indicates that the board should evaluate the company's ability to generate and to maintain value in the long-term. Furthermore, the fifth section of the code states, "*Remuneration policies and practices should be designed to support strategy and promote long-term sustainable success*" (p.13).

Likewise, participating in CSR activities can be seen as a result of the continuous pressure from shareholders (Cox et al., 2004; Desender & Epure, 2021). Large shareholders, such as institutional investors, may have the power to influence a firm's decisions (for example, by appointing the board of directors) (Boyd, 1994; Hong et al., 2016; Lamb & Butler, 2018; Lee & Lounsbury, 2011; Smith, 1996). Therefore, more monitoring roles will be associated with institutional investors owning large amounts of stock. Institutional investors also have asymmetric information advantages if compared to other shareholders (Ali et al., 2021; Schnatterly et al., 2008; Shleifer & Vishny, 1997). Moreover, given that such investors own large amounts of stock, selling their stock is more difficult and hence such investors are tied to long-term strategic decisions such as CSR activities (Ali et al., 2021; Lamb & Butler, 2018).

Institutional shareholders trade shares with an investment strategy to generate "*risk-adjusted returns*"; such institutional investment behaviour may be influenced by the association between financial performance and CSR performance. Existing literature argues that several financial returns from social and environmental activities can be achieved in the long run. However, these activities require short-term investments (e.g., Cox et al., 2004; Flammer et al., 2019; Fu et al., 2022; Hong et al., 2016; Lopatta et al., 2016; Nguyen et al., 2020; Parsa et al., 2021). Hence, from short-term perspectives, such investments may represent a financial burden on the firm. In the same vein, stock markets might not be able to evaluate such environmental and social investments in a correct manner even if the higher CSR scores might benefit the firm. This is because such activities are perceived as uncertain long-term investments with difficulties in knowing the exact outcome from such activities (Falck & Heblich, 2007).

There is evidence in the literature that different shareholders have dissimilar attitudes toward investment decisions. This can be related to the investment strategy adopted by each investor. For example, mutual funds and investment banks might be more interested in short-term investments, since managers of such organizations have high turnover rates (Bushee, 1998), and their compensations are based on short-term plans (Johnson & Greening, 1999). However, pension funds as institutional investors are more interested in long-term investment plans as such investors have predictable long-term cash flows, and hence long-term investment plans (Ryan & Schneider, 2002). Given that the financial returns of CSR investments are expected to be received in the long run, we expect such investors will value CSR activities if compared to their short-term counterparts (Nguyen et al., 2020; Oh et al., 2011).

CSR issues are treated in a more serious manner in the UK if compared to other developed countries such as the US (Aguilera et al., 2006). There is a growing interest in CSR activities among different stakeholders including employees, customers, government and socially responsible investors (Qiu et al., 2016; Wang et al., 2015). Recently, institutional investors in the UK have increased their control share in the equity market (Aguilera et al., 2006). In 2003, the evidence showed that institutional investors do control around 80% of the UK equity market (Mallin et al., 2005). Thus, such investors can exercise their power in investment and strategic decisions (Clark & Hebb, 2004; Clark & Wojcik, 2005). It is argued that UK institutional investors are more concerned with corporate social performance as well as social and environmental risks (Aguilera et al., 2006). There are three reasons for this: (i) there is a general awareness about ethics in the British society and more precisely for business ethics by corporations, (ii) more concerns regarding

"risk" and "risk management", and (iii) the media exposure related to CSR activities and performance (Solomon et al., 2004).

Aguilera et al. (2006) have proposed different motives for UK institutional investors that align corporate social performance with their investment plans, or performing in alliances to enhance the awareness of strategic CSR activities. Firstly, investors are affected by instrumental motives to protect their investments by considering the possible links between firms' reputation and their stock prices (Clark & Hebb, 2005). Secondly, from a moral viewpoint, pension fund trustees and investment consultants are morally acting on behalf of their beneficiaries' interests. Hence, fund managers employ social performance best practices, as they believe that this achieves their beneficiaries' long-term interests.

Likewise, there is a regulatory pressure on the UK pension funds to modify their investment plans for more CSR activities. In 2000, UK pension funds are asked to disclose, in their Statement of Investment Principles, the importance of social performance in their investment decisions (Occupational Pension Schemes (Investment) Regulations 1996 (Regulation 11A)., 1999). Pension Funds are expected to financially benefit from CSR activities in the long run and have such regulatory pressure, which affects their investment decisions. Thus, a positive association might be expected between corporate social performance and pension funds shareholdings (Cox et al., 2004).

Managerial shareholding, on the other hand, is an effective tool to minimize agency conflicts by aligning shareholders' interests to managerial interests (Ali et al., 2021; Eisenhardt, 1989; Huang et al., 2013; Jensen & Meckling, 1976). Therefore, if CSR activities increase a firm's value, then stock ownership by managers can enhance managers' motives to get involved in CSR activities (Lopatta et al., 2016; Orlitzky et al., 2003). Similarly, if the costs of CSR investment might be higher than its potential benefits, then there will be less CSR activities in firms owned by managers (Khan et al., 2013). However, mangers could pursue other noneconomic benefits that may be realized from CSR activities, such as membership into social elites, deflecting criticism or drawing attention away from some irresponsible activity (Coffey & Wang, 1998; Lopatta et al., 2016; Saeed et al., 2022).

Accordingly, the evidence suggests that different shareholders have divergent attitudes to CSR activities. This is because of their investment behaviour and their preferences for long-term/short-term returns. This motivates us to break down shareholding structures to outsiders (institutional investors and pension funds) and insiders (managerial shareholding) in our analysis, which will help to thoroughly investigate the investment behaviours of these shareholders.

## 4 | HYPOTHESES DEVELOPMENT

In this section, we formulate this study's main hypotheses by employing multidimensional theoretical perspectives to articulate our arguments regarding each hypothesis.

### 4.1 | Corporate governance

Governance mechanisms and CSR activities should not be investigated and sustained independently. A firm without an efficient leadership and clear internal monitoring and controlling tools will not be able to link itself to a long-term investment, such as CSR activities (Bear et al., 2010; Cabeza-García et al., 2018; Chen et al., 2019; Harjoto & Rossi, 2019; Jamali et al., 2008; Katmon et al., 2019). From a stakeholder theory standpoint, companies with effective CG mechanisms (e.g. separating chairperson/CEO rules, audit committee and CSR committee) monitor managers' decisions to ensure that they are in line with the stakeholders' interests (Helfaya & Moussa, 2017; Khan et al., 2013). This might motivate the firm to engage more with CSR activities. Firms with effective governance mechanisms (e.g. high percentage of outside and diverse board members) are more likely to look into the broader picture of organizational performance. They will not tie their decisions only to financial benefits, but also consider the overall societal and environmental factors (Cabeza-García et al., 2018; Coffey & Wang, 1998; Elmagrhi, Ntim, Elamer, & Zhang, 2019; Harjoto & Rossi, 2019; Ibrahim et al., 2003; Ibrahim & Angelidis, 1995; Post et al., 2011).

In the same vein, agency theory suggests that strong governance mechanisms enhance managers' ability to act within shareholders' interests through limiting managerial opportunism and protecting shareholders' interests (Dunbar et al., 2021). Thus, firms with effective governance mechanisms will be more involved in CSR activities (Chen et al., 2019; Harjoto & Jo, 2011; Harjoto & Rossi, 2019; Mallin et al., 2013). Effective governance would employ CSR activities to help in mitigating conflicts between different stakeholders, namely investing and non-investing shareholders (Harjoto & Jo, 2011). Thus, mitigating agency conflicts may enhance a firm's financial performance and value (Harjoto & Jo, 2011). Similarly, resource dependence theory suggests that effective governance mechanisms (e.g. board independence and diversity, and shareholding structure) help firms in safeguarding resources such as knowledge, external ties and legitimacy (Elmagrhi, Ntim, Elamer, & Zhang, 2019; Mallin et al., 2013; Pfeffer & Salancik, 1978). Bear et al. (2010), Cabeza-García et al. (2018), and Post et al. (2011) argue that there is an international impetus to diversify

the boards. This would enhance knowledge transfer as well as ideas and values to help forming decisions such as CSR disclosure and plans.

On the other hand, the over-investment hypothesis of agency theory suggests that firms with more effective governance (more monitoring intensity) are less likely to engage in CSR activities. This is because good governance practices limit over-investment decisions (Cabeza-García et al., 2018; Gompers et al., 2003). Governance mechanisms are used to monitor managerial behaviours to make sure that managers act for the interest of shareholders. These mechanisms might include independence, diversity and size of the board as well as the status of the board leadership (Cabeza-García et al., 2018; Elmagrhi, Ntim, Elamer, & Zhang, 2019; Huang et al., 2013; Jensen & Meckling, 1976). Therefore, with such monitoring activities, managers should have less room for managerial discretion, and hence this may have an impact on long-term investments, such as expensive CSR activities. In addition, the UK (as a liberal market) could operate CG mechanisms that concentrate on maximizing shareholders' value more than other stakeholders' interests (including CSR activities) (Desender & Epure, 2021).

Empirically, the extant literature documents that firms with effective CG mechanisms (such as independent, diversified and experienced boards) are involved in CSR activities to align the interests of stakeholders and enhance CSR activities (e.g. Ben-Amar et al., 2017; Elmagrhi, Ntim, Elamer, & Zhang, 2019; Harjoto & Jo, 2011; Helfaya & Moussa, 2017; Ibrahim & Angelidis, 1995; Jizi et al., 2014; Johnson & Greening, 1999; Post et al., 2011). Hence, we posit that:

> **H1:** Corporate governance is positively associated with corporate social responsibility.

## 4.2 | Institutional investors

Institutional investors are the largest shareholders in many stock markets. These investors aim to attain financial returns and manage risks to maximize the benefits for their clients (Dam & Scholtens, 2012; Desender & Epure, 2021; Lamb & Butler, 2018; Mallin et al., 2005; OECD, 2009). In addition, institutional shareholding is considered as a tool to monitor management's opportunistic activities (Ali et al., 2021; Hong et al., 2016; Scholtens & Van, 2000). From an agency theory stand, if CSR activities will lead to a reduction in a firm's value (over-investment), institutional investors will monitor firms and reduce such activities. Therefore, a negative association between institutional investors and CSR activities will be expected (Barnea & Rubin, 2010). Some institutional investors such as investment banks and mutual funds are keen to achieve short-term returns to increase rewards that depend on such returns (Starks, 1987). The preference for short-term returns and the difficulty of selling large numbers of shares without incurring losses may have an impact on investment managers. This will lead such managers to emphasize the bottom line (short-term performance) in the decision-making process and direct firms to meet such objectives (Johnson & Greening, 1999).

On the other hand, stakeholder theory argues that institutional investors provide credible services based on information asymmetry between these investors and their clients. Therefore, investing in CSR activities would provide a positive signal to their clients that these investors are responsible and trustworthy (Ali et al., 2021; McGuire et al., 2003; Siegel & Vitaliano, 2007). Some researchers suggest that institutional investors pursue long-term returns from investing in CSR activities (e.g. Turban & Greening, 1997). From the UK context, Cox et al. (2004) detect that long-term institutional investors are positively related to corporate social performance. Hence, such investors consider CSR activities to help in reducing conflicts and minimizing firm related risks (Harjoto & Jo, 2011).

Empirically, previous studies provide mixed results for the association between institutional investors and CSR activities. For example, Oh et al. (2011), using Korean firms, find a positive impact of banks ownership on CSR ratings, however, ownership by insurance companies has no impact on CSR ratings. Similarly, other researchers report a positive relationship between institutional investors and CSR performance (e.g., Graves & Waddock, 1994; Harjoto & Jo, 2011; Mallin et al., 2013). On the other hand, Desender and Epure (2021) find a negative association between investment company ownership and corporate social performance in liberal markets. However, Barnea and Rubin (2010), Dam and Scholtens (2012) and Johnson and Greening (1999) report that institutional investors have a neutral impact on CSR activities.

In the UK context, institutional investors' portfolios are relatively stable due to the lower turnover (Black & Coffee, 1994). Hence, these investors hold their shares for long period if compared to their counterparts in other developed countries, such as the US. This allows such investors to develop a closer relationship with firms' management and their boards of directors (Black & Coffee, 1994; Hoskisson et al., 1994). Accordingly, these investors will develop different investment behaviours and will be more involved in increasing a firm's value and/or minimizing long-term risks, instead of just selling their shares when firms are not performing as expected

(Ali et al., 2021; Clark & Hebb, 2004). UK institutional investors are more involved with firms through frequent meetings with CEOs and senior management to evaluate the quality of performance and the interrelationships between directors and top management (Holland, 1998). Therefore, institutional investors can be seen as "*an early warning system*" for governance and strategic decisions. In addition, they may closely evaluate the corporate social activities and would consider the environmental risks associated with the business (Williams & Conley, 2005). Therefore, we posit that:

> **H2:** Institutional shareholding is positively associated with corporate social responsibility.

## 4.3 | Pension funds

Pension funds are characterized by a long average liabilities duration and a long-term investment potential with high-predicted cash outflows (Davis & Steil, 2001; Ryan & Schneider, 2002). Therefore, pension funds are seen to be long-term investors seeking long-term projects (Mahapatra, 1984). Thus, institutional investors' time horizon can be linked to the CSR potential investment output (Graves & Waddock, 1994; Nguyen et al., 2020). Since pension funds hold different portfolios, they are able to hold long-term investment plans. Pension funds might consider ownership in firms with long-term investment in sustainable and environmental strategies (Gilson & Kraakman, 1991; McGuire et al., 2003; Sethi, 2005). Given the difficulty of selling their shares, pension fund managers may perceive the long-term benefits of being responsive to different stakeholders. Additionally, pension fund managers may interpret the costs of CSR as minimal when compared with the potential benefits of such activities over time (Mahapatra, 1984). Managers' rewards from such pension funds are not linked to the fund's performance, as mostly they are employees with fixed salaries (McGinn, 1997). Therefore, there is no short-term pressure on pension fund managers if compared to other institutional investors.

Furthermore, there is evidence that public pension funds might look at different objectives, not just shareholders' wealth maximization. Woidtke (2002) detects that public pension funds have no impact on firm value and argues that officials with personal agendas are often managing pension funds. These funds might follow pro-CSR strategies that are in line with their own objectives regardless of their negative effect on a firm's value. On the other hand, limited evidence shows counter prediction. Using a small sample from the US, McGuire et al. (2003) document that high levels of pension funds shareholdings strengthen the positive effect of salary and long-term incentives on poor social performance. Their findings suggest that pension funds may use compensation structure to incentivize executives to focus on firms' financial performance to the detriment of CSR investments.

In the UK, pension funds and insurance companies have long-term obligations and plans, thus they adopt long-term investment strategies for opportunities and associated risks (Aguilera et al., 2006). Recently, many industry trade bodies, targeting investments of public and private pension funds, are keen to set their CSR strategies (Local Authority Pension Fund Forum, 2018; Pensions and Lifetime Savings Association, 2016). UK government imposed an additional pressure on pension funds to provide information on different ethical, social and environmental aspects that are considered when building their investment portfolios (Williams & Conley, 2005). It is also worth mentioning that the Association of British Insurers and National Association of Pension Funds encourage the disclosure of information regarding social activities by portfolio companies (Aguilera et al., 2006). Therefore, we expect a positive association between pension funds shareholding and CSR performance. Empirically, most of the previous studies report a positive association between pension funds shareholding and corporate social performance and CSR ratings (Johnson & Greening, 1999; Mallin et al., 2013; Oh et al., 2011). Hence, we posit that:

> **H3:** Pension funds shareholding is positively associated with corporate social responsibility.

## 4.4 | Managerial shareholding

From the stakeholders' perspective, Zahra et al. (1993) suggest that insider shareholding, such as managerial shareholding, has a positive influence on CSR performance. This is because insiders with large shareholdings are more able to allocate resources among stakeholders to secure different stakeholders' support. Top managers with high equity may also see positive results from their behaviour toward communities, hiring women and minorities, and maintaining good employee relations. Such top managers might think of CSR activities as positive actions to enhance goodwill, and hence customers might be more favourable to their products. This will lead to better relationships with different stakeholders such as banks and governments (Cochran & Wood, 1984; Wang et al., 2015). In the same vein, managerial shareholding can motivate more attention toward stakeholders' interests (Johnson & Greening, 1999). In addition, they may

have a long-term sustainable commitment to provide high quality services and products and to avoid any environmental problems that might lead to financial fines (Figge & Hahn, 2013). Moreover, the market competition will motivate top managers to act as market leaders in environmental policies and CSR activities (McGuire et al., 2003; Rodrigue et al., 2013: Yamak et al., 2018). Coffey and Wang, (1998) argue that managers may be major beneficiaries of philanthropy, although these benefits may be largely noneconomic.

Similarly, top managers with long-term plans tend to invest more in high quality services and products and try to avoid any reputational damaging effects resulting from bad environmental plans (Johnson & Greening, 1999; Yamak et al., 2018). In their study, Coffey and Wang (1998) detect a positive relationship between managerial shareholding and corporate philanthropy. Similarly, Johnson and Greening (1999) find that top management shareholding is positively linked to product quality dimension, but neutral to the people dimension of CSR.

On the other hand, agency theory suggests that management shareholding is one of the best methods to align managers' interests to shareholders' interests and hence mitigate agency conflicts. Managerial shareholding links their wealth to a firm's performance and other shareholders' interests, which will be taken into consideration when making their investment decisions (Ali et al., 2021; Denis et al., 1997; Mamatzakis & Bagntasarian, 2021). Therefore, managers who own significant shares are more likely to make investment decisions to maximize shareholders' wealth. With more managerial ownership concentration, they will be able to control and decide on strategies and policies regarding corporate social behaviour (Barnea & Rubin, 2010; Khan et al., 2013; McGuire et al., 2003). Thus, if CSR activities will increase firm value, such managers will aim to invest in more CSR activities (Orlitzky et al., 2003). Otherwise, if investment in CSR activities will lead to a negative impact on a firm's value (over-investment), these managers will be reluctant to invest in costly CSR activities. Over-investment hypothesis posits that CSR initiatives are used by insiders to gain private benefits (e.g., personal reputation and career opportunity) (Cai et al., 2011). Therefore, shareholders consider CSR activities as a waste of resources and non-value-added investments that should be abundant. In addition, firms with high managerial shareholding might face less public accountability due to the small interests from outsiders (Khan et al., 2013). Therefore, a negative relationship would be expected between managerial ownership and CSR activities (Barnea & Rubin, 2010; Khan et al., 2013; McGuire et al., 2003). This indicates that managers will minimize their investment in CSR activities because the costs of such investment might be higher than the expected outcomes.

Empirically, Oh et al. (2011), in Korea, report that top management shareholding has a negative association with CSR ratings, while shareholding by outside directors has insignificant association with CSR ratings. Similarly, Khan et al. (2013) find managerial shareholding has a negative relationship with CSR disclosures. Barnea and Rubin (2010) detect that insiders' shareholding has a negative association with the firm's social rating. In the same vein, Dam and Scholtens (2012) report that employees' ownership is related to weak corporate social policies of the firms in which they own their shares. However, McGuire et al. (2003) report insignificant association between CEO ownership and firm social performance. Hence, based on the theoretical and empirical evidence, we argue that:

> **H4:** Managerial shareholding is associated with corporate social responsibility.

## 5 | RESEARCH DESIGN

### 5.1 | Sample

Our sample covers non-financial companies listed in the FTSE350 index within the period from 2002 to 2016. This index is composed of top 350 firms based on market capitalization. We investigate CSR activities by analysing CSR scores from the Thomson Reuters DataStream (ASSETS4). Following previous studies, we exclude financial firms as these follow different institutional, environmental and social regulations (Qiu et al., 2016). Furthermore, based on the availability of CSR scores, CG and shareholding variables, our final sample consists of 2205 firm-year observations.

### 5.2 | Dependent variable

We measure CSR activities using a CSR score index introduced by the Thomson Reuters ASSET4 database.[1] The CSR score, which is the average of environmental, economic and social scores, shows firm-level CSR policies and activities. High CSR scores will indicate more CSR engagements and activities and hence better CSR strategy. ASSET4 scores are seen as comprehensive datasets on CSR activities, which is used extensively in CSR literature (Desender & Epure, 2021; Qiu et al., 2016; Shaukat et al., 2016).

Existing CSR literature emphasizes the multidimensional aspect of CSR activities and argues that CSR

should be investigated within the different dimensions and components of the CSR activities (e.g. Carroll, 1979; Griffin & Mahon, 1997). It is also important to note that investigating a general score of CSR might mask other equally important dimensions of the CSR activities (Johnson & Greening, 1999; Mallin et al., 2013). However, an overall CSR score will provide a holistic view regarding the important social activities measured in a consistent manner across different companies (Cox et al., 2004; Graves & Waddock, 1994). Accordingly, we employ a single aggregated CSR score alongside three specific CSR dimensions to investigate the possible impact of governance mechanisms and shareholding structure on CSR activities.

### 5.3 | Model specifications, independent and control variables

We employ different time series cross sectional regression analyses to examine the interrelationship between the governance mechanisms, shareholding structure and the CSR performance. The econometrics assumptions underlying the regression model were tested for multicollinearity, heteroscedasticity and other related issues of multiple regression analysis. Our regression models are not biased by these issues. Our main regression equation is as follows:

$$\mathrm{CSRS}_{it} = \alpha_0 + \beta_1 \mathrm{CGS}_{it} + \beta_2 \mathrm{ISHR}_{it} + \beta_3 \mathrm{PSHR}_{it} + \beta_4 \mathrm{MSHR}_{it} + \sum_{i=1}^{n} \beta_i \mathrm{CONTROLS}_{it} + \varepsilon_{it}, \quad (1)$$

where CSRS is CSR score, CGS is corporate governance score, ISHR is percentage of stocks owned by institutions, PSHR is the percentage of stocks owned by pension funds, MSHR is percentage of stocks owned by managers, CONTROLS is control variables including: FSIZE is the natural logarithm of total assets, LEV is the ratio of book value of total debt to total assets, ROE is the ratio of return on equity, LIQ is the most liquid assets ratio, MTB is market to book value. Table 1 summarizes the operational definition of these variables.

We control for firm-specific factors that the literature indicates as important variables that affect CSR performance. Thus, we include firm size (FSIZE), measured by the natural log of the book value of total assets (D'Amico et al., 2016; Desender & Epure, 2021; Li & Zhang, 2010; Tauringana & Chithambo, 2015). Larger firms tend to have great visibility and large operational impact and hence might invest in CSR activities (Barnea & Rubin, 2010; Khan et al., 2013). We also include profitability in our models, measured by return on equity (Clarkson et al., 2008; Li & Zhang, 2010). It is argued that firms with high economic resources are more able to invest in CSR activities (Qiu et al., 2016). We also include firm leverage (LEV) measured by the ratio of debt to equity (D'Amico et al., 2016; Desender & Epure, 2021). Firms' capital structure can also affect CSR performance, since firms exposed to high interest payments are less able to over-invest in CSR activities. Barnea and Rubin, (2010) suggest that high debt ratios lead to unavailability of cash that could be used for investment in CSR activities. In addition, we consider the effect of liquidity (LIQ) in our models. Firms with higher liquid assets are more likely to invest in socially responsible activities. Finally, we include market to book value (MTB) to control for industry's growth opportunities that may affect CSR activities (Barnea & Rubin, 2010).

CSR, CG and, more broadly, the finance literature investigating the "cause and effect" of financial decisions suffer from endogeneity issues. Wintoki et al. (2012: 581) state "*this is because it is generally difficult to find exogenous factors or natural experiments with which to identify the relations being examined*". Therefore, using lagged CG variables as instruments is one of the common practices in the CG literature (e.g. Li et al., 2021). We follow previous studies by using lagged governance and ownership variables as instruments (Desender & Epure, 2021; Li et al., 2021; Wintoki et al., 2012). We also used lagged financial performance as an additional instrument as the literature indicates the firms with better performance and enhanced economic resources are more likely to engage in CSR activities (e.g. Qiu et al., 2016). We empirically tested the validity of our instruments using the Sargan test (reported in our tables) which provided evidence that our instruments satisfy the conditions related to exogeneity and therefore are valid instruments. Finally, and as a robust check, we used logit models (with binary dependent variable, see Table 9) to minimize the endogeneity issues caused when continuous variables are employed. Our results are consistent when using different models and instrument validity test supports the use of such methodology.

## 6 | FINDINGS AND DISCUSSION

### 6.1 | Descriptive analysis

Table 2 represents the descriptive statistics and shows that the average score of the CSR is 63.93% with the highest score of 97.95%; this might indicate good involvement with CSR activities in our UK sample. In addition, we report that the average CG score is 75.03% with a highest score of 97.67% and hence our sampled firms engage in

**TABLE 1** Summary of variables and measures.

| | |
|---|---|
| Dependent variables | |
| CSRS | Corporate social responsibility score which is the average of 3 CSR dimensions (i.e. economic, social and environmental scores) |
| ECOS | Economic score; DataStream defines this variable as "*The economic pillar measures a company's capacity to generate sustainable growth and a high return on investment through the efficient use of all its resources. It is reflection of a company's overall financial health and its ability to generate long term shareholder value through its use of best management practices*" (DataStream guide) (code: ECNSCORE) |
| ENVS | Environmental score; DataStream defines this variable as "*The environmental pillar measures a company's impact on living and non-living natural systems, including the air, land and water, as well as complete ecosystems. It reflects how well a company uses best management practices to avoid environmental risks and capitalize on environmental opportunities in order to generate long term shareholder value*"(DataStream guide) (code: ENVSCORE) |
| SOCS | Social score; DataStream defines this variable "*The social pillar measures a company's capacity to generate trust and loyalty with its workforce, customers and society, through its use of best management practices. It is a reflection of the company's reputation and the health of its licence to operate, which are key factors in determining its ability to generate long term shareholder value*" (DataStream guide) (code: SOCSCORE) |
| Independent variables | |
| CGS | Corporate governance score; DataStream defines this variable as "*The corporate governance pillar measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long term shareholder value*" (DataStream guide) (code: CGVSCORE) |
| ISHR | The percentage of total shares owned by investment banks or institutions. In general, only holdings of 5% or more are counted as strategic (code: NOSHIC) |
| PSHR | The percentage of strategic share holdings of 5% or more owned by pension funds or endowment funds (code: NOSHPF) |
| MSHR | The percentage of total shares owned by employees, or by those with a substantial position in a company (code: NOSHEM) |
| COMPCNT | A dummy variable = 1 if the company have an ESG related compensation policy and 0 otherwise (code: CGCPDP0013) |
| EXCOMP | Log of the total value of the stock based compensation of employees during the year as reported by the company (code: SOEQDP024) |
| Control variables | |
| FSIZE | Natural log of book value of total assets (code: wc02999) |
| ROE | (Net income − bottom line − preferred dividend requirement)/average of last year's and current rear's common equity × 100 (code: WC08301) |
| LEV | Total debt/total assets (code: wc03255/wc02999) |
| LIQ | Current assets/total assets (code: wc02201/wc02999) |
| MTB | This is defined as the market value of the ordinary (common) equity divided by the balance sheet value of the ordinary (common) equity in the company (code: MTBV) |

sound governance practices. Moreover, managerial ownership is on average 5.53% and institutional ownership is around 10.88%, while pension fund own, on average, 0.35% of the shares. Interestingly, 37.29% of the sampled UK companies connect executive compensation to CSR performance.

## 6.2 | Pairwise correlation

The correlation matrix is presented in Table 3 and shows that there are no high bi-variate correlations between the independent variables and hence multicollinearity is not of concern in our regression models.

## 6.3 | Regression analyses

To empirically examine our hypotheses, we employed cross sectional time series models. Table 4 shows four models representing the average CSR, economic, environmental and social scores. Our results show that there is a consistent positive relationship between CG and CSR scores. This positive association is in line with H1 and

**TABLE 2** Summary for descriptive statistics.

| Variable | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|
| CSRS% | 63.935 | 22.004 | 6.077 | 97.953 |
| CGS% | 75.031 | 18.075 | 3.320 | 97.670 |
| ISHR% | 10.877 | 12.083 | 0 | 70.000 |
| PSHR% | 0.347 | 2.385 | 0 | 71.000 |
| MSHR% | 5.528 | 14.132 | 0 | 77.000 |
| COMPCNT% | 37.295 | 48.369 | 0 | 100.000 |
| EXCOMP | 15.409 | 1.066 | 7.421 | 21.046 |
| FSIZE | 14.691 | 1.554 | 9.943 | 19.746 |
| LEV% | 23.920 | 17.285 | 0 | 99.242 |
| ROE% | 17.011 | 37.686 | −98.240 | 99.970 |
| LIQ% | 39.476 | 21.971 | 0 | 99.821 |
| MTB | 4.121 | 29.597 | −175.440 | 177.20 |

*Note*: variables are defined in Table 1.

different empirical studies (e.g., Ben-Amar et al., 2017; Cabeza-García et al., 2018; Elmagrhi, Ntim, Elamer, & Zhang, 2019; Harjoto & Jo, 2011; Harjoto & Rossi, 2019; Helfaya & Moussa, 2017; Ibrahim & Angelidis, 1995; Jizi et al., 2014; Johnson & Greening, 1999; Post et al., 2011). This evidence is also in line with stakeholders' theory, which argues that companies with effective governance mechanisms more probably engage in CSR activities that consider the interests of stakeholders (Helfaya & Moussa, 2017; Khan et al., 2013). Similarly, agency theory suggests that strong governance mechanisms enforce managers to engage in CSR activities to mitigate any possible conflicts between non-investing and investing stakeholders (Dunbar et al., 2021; Harjoto & Jo, 2011; Mallin et al., 2013). In addition, the resource dependence theory suggests that effective governance mechanisms can secure important resources such as external ties, knowledge and legitimacy. This improves decision-making processes including CSR activities (Bear et al., 2010; Mallin et al., 2013; Pfeffer & Salancik, 1978; Post et al., 2011).

Moreover, we report some evidence of a negative association between institutional shareholding and CSR indicators, this is reported in Models 1 and 4. This result is not consistent with H2 and the expectations that UK institutional investors will encourage CSR activities. However, our evidence is in line with the arguments supported by the agency theory that if CSR expenditure might reduce a firm's value, then institutional investors may monitor management to reduce such activities (Barnea & Rubin, 2010; Desender & Epure, 2021). In addition, this result might indicate the reluctance of institutional investors to engage in long-term projects without certain returns of such investment. Accordingly, our

**TABLE 3** Correlation matrix.

| | CGS | ISHR | PSHR | MSHR | COMPCNT | EXCOMP | FSIZE | LEV | ROE | LIQ | MTB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CGS | 1 | | | | | | | | | | |
| ISHR | −0.117*** | 1 | | | | | | | | | |
| PSHR | −0.102*** | 0.201*** | 1 | | | | | | | | |
| MSHR | −0.204*** | −0.129*** | −0.038** | 1 | | | | | | | |
| COMPCNT | 0.270*** | −0.155*** | −0.046 | −0.089*** | 1 | | | | | | |
| EXCOMP | 0.267*** | −0.278*** | −0.044** | −0.099*** | 0.176*** | 1 | | | | | |
| FSIZE | 0.353*** | −0.231*** | −0.018*** | −0.103*** | 0.292*** | 0.534*** | 1 | | | | |
| LEV | 0.036 | −0.0260* | 0.016*** | −0.025*** | 0.054*** | 0.037** | 0.233*** | 1 | | | |
| ROE | −0.007 | −0.019 | −0.056*** | −0.003 | −0.049 | 0.021** | −0.102*** | −0.020** | 1 | | |
| LIQ | −0.040** | 0.128*** | 0.010 | 0.044*** | −0.108*** | −0.150*** | −0.311*** | −0.414*** | 0.042*** | 1 | |
| MTB | 0.015 | 0.012 | −0.020 | −0.009 | −0.036 | −0.023 | −0.115*** | −0.072*** | 0.093*** | 0.112*** | 1 |

*Note*: variables are defined in Table 1.

**TABLE 4** Corporate social responsibility (CSR), corporate governance, and shareholdings cross sectional time series models.

| Variables | (1) CSR | (2) ECOS | (3) ENVS | (5) SOCS |
|---|---|---|---|---|
| CGS | 0.522*** | 0.474*** | 0.483*** | 0.609*** |
| | (0.036) | (0.049) | (0.042) | (0.040) |
| ISHR | −0.151** | −0.135 | −0.135 | −0.183** |
| | (0.068) | (0.090) | (0.088) | (0.079) |
| PSHR | −0.126 | −0.103 | −0.133 | −0.144 |
| | (0.086) | (0.105) | (0.112) | (0.103) |
| MSHR | −0.182*** | −0.203*** | −0.228*** | −0.116** |
| | (0.052) | (0.077) | (0.064) | (0.053) |
| FSIZE | 6.287*** | 5.769*** | 7.440*** | 5.651*** |
| | (0.508) | (0.622) | (0.683) | (0.644) |
| LEV | −0.170 | −10.650** | 3.114 | 7.027 |
| | (4.263) | (5.136) | (5.354) | (5.514) |
| ROE | 0.026** | 0.054*** | 0.00717 | 0.0165 |
| | (0.011) | (0.0171) | (0.013) | (0.011) |
| LIQ | 8.177** | 0.828 | 18.11*** | 5.592 |
| | (3.570) | (4.776) | (4.750) | (4.458) |
| MTB | −0.010 | −0.011 | −0.002 | −0.018** |
| | (0.007) | (0.010) | (0.007) | (0.009) |
| Constant | −67.17*** | −54.43*** | −85.18*** | −61.92*** |
| | (7.921) | (9.946) | (10.59) | (9.891) |
| Observations | 2205 | 2205 | 2205 | 2205 |
| $R^2$ | 0.567 | 0.334 | 0.466 | 0.500 |
| Year FE | Yes | Yes | Yes | Yes |

*Notes*: variables are defined in Table 1; robust standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; and *$p < 0.1$.

result is consistent with past studies that report a negative link between institutional shareholding and social performance, particularly in liberal markets such as the UK (e.g. Desender & Epure, 2021). We also report that there is no significant relationship between pension funds and CSR indicators, which contradicts H3. Our results are similar to previous studies (e.g. Cox et al., 2004), which do not suggest that regulatory pressure on pension funds has an impact on their investment plans for environmental and social investments.

Finally, we detect a negative relationship between managerial shareholding and CSR indicators, which is consistent with H4 and previous studies such as Barnea and Rubin (2010), Dam and Scholtens (2012) and Oh et al. (2011). Therefore, our findings are in line with the agency theory argument that insiders might moderate their private benefits compared to performance and a firm's value, if the CSR related costs may be higher than the potential benefits of such activities (Barnea & Rubin, 2010; Khan et al., 2013).

Our results are also in line with previous studies that support different antecedent factors, such as CG, institutional shareholding and managerial shareholdings might have different effects on different dimensions of CSR activities (Barnea & Rubin, 2010; Dam & Scholtens, 2012; David et al., 2007; Johnson & Greening, 1999; McGuire et al., 2003; Prior et al., 2008). For example, institutional shareholding has a negative and significant relationship with CSR and social scores, while it has an insignificant relationship with economic and environmental scores. In addition, regarding our control variables, we detect that firm size, profitability and liquidity have a positive impact on CSR performance. These findings are consistent with previous studies that find large firms with available resources invest more on CSR activities (Clarkson et al., 2008; Dam & Scholtens, 2012; D'Amico et al., 2016;

**TABLE 5** Corporate social responsibility (CSR), corporate governance, and shareholdings IV 2SLS models

| Variables | (1) CSR | (2) ECOS | (3) ENVS | (4) SOCS |
|---|---|---|---|---|
| CGS | 0.625*** | 0.550*** | 0.590*** | 0.735*** |
| | (0.035) | (0.054) | (0.045) | (0.041) |
| ISHR | −0.304*** | −0.336*** | −0.232** | −0.344*** |
| | (0.0779) | (0.121) | (0.102) | (0.092) |
| PSHR | −0.142 | 0.0178 | −0.174 | −0.270 |
| | (0.286) | (0.444) | (0.374) | (0.338) |
| MSHR | −0.211*** | −0.227*** | −0.278*** | −0.126*** |
| | (0.027) | (0.042) | (0.035) | (0.032) |
| FSIZE | 5.265*** | 4.669*** | 6.487*** | 4.639*** |
| | (0.292) | (0.453) | (0.381) | (0.344) |
| LEV | 2.471 | −7.929** | 6.451** | 8.890*** |
| | (2.154) | (3.341) | (2.813) | (2.539) |
| ROE | 0.020** | 0.047*** | 0.004 | 0.009 |
| | (0.009) | (0.013) | (0.011) | (0.010) |
| LIQ | 7.403*** | 0.350 | 17.93*** | 3.925* |
| | (1.726) | (2.677) | (2.254) | (2.034) |
| MTB | −0.010 | −0.009 | −0.002 | −0.019 |
| | (0.011) | (0.016) | (0.014) | (0.012) |
| Constant | −58.18*** | −41.95*** | −78.32*** | −54.28*** |
| | (4.697) | (7.284) | (6.134) | (5.536) |
| Sargan test | 0.309 | 0.118 | 0.186 | 2.07 |
| Observations | 1980 | 1980 | 1980 | 1980 |
| $R^2$ | 0.530 | 0.293 | 0.440 | 0.457 |
| Year FE | Yes | Yes | Yes | Yes |

*Notes*: variables are defined in Table 1; standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; and *$p < 0.1$.

Harjoto & Jo, 2011; Li & Zhang, 2010; Tauringana & Chithambo, 2015).

In order to control for any endogeneity issues, our models are re-estimated using 2SLS and the results are reported in Table 5. Table 5 has four different models for each of the CSR indicators we employ in this paper. Consistent with our findings in Table 4, we reported that CSR indicators have a positive relationship with CG, as well as a negative connotation between institutional shareholding and managerial shareholding, on the one hand and the CSR indictors, on the other. Finally, we find that firm size, liquidity and profitability have a positive impact on CSR performance.

Accordingly, our results are consistent after controlling for any possible endogeneity issues and confirm a positive association between CG index and CSR performance as well as a negative impact of institutional and managerial shareholdings on CSR performance.

## 6.4 | Further analyses and robustness tests

Our results reported in Tables 4 and 5 indicate that there is a relationship between CG, shareholding structure and CSR indicators. We aim in this section to examine, in more depth, this relationship.

### 6.4.1 | Interaction between shareholding structure and CG

Past studies argued and found empirical evidence supporting the moderation effect of shareholding structure on the association between CG and CSR (e.g. McGuire et al., 2003).[2] In order to investigate the interaction between shareholding structure and CG practices, we

**TABLE 6** Corporate social responsibility (CSR), corporate governance, and shareholding-interaction effects.

| Variables | (1) Interaction-OLS | (2) Interaction-OLS | (3) Interaction-IV | (4) Interaction-IV |
|---|---|---|---|---|
| CGS | 0.593*** | 0.586*** | 0.785*** | 0.796*** |
| | (0.044) | (0.043) | (0.051) | (0.053) |
| ISHR | −0.151** | −0.0741 | −0.240*** | −0.150 |
| | (0.069) | (0.051) | (0.078) | (0.103) |
| PSHR | −0.454 | 0.767 | 0.678 | 3.150* |
| | (0.539) | (0.514) | (2.774) | (1.642) |
| MSHR | −0.220*** | −0.210*** | −0.258*** | −0.246*** |
| | (0.057) | (0.057) | (0.027) | (0.028) |
| FSIZE | 6.157*** | 6.411*** | 5.254*** | 5.549*** |
| | (0.510) | (0.510) | (0.297) | (0.305) |
| LEV | 0.847 | 0.612 | 4.641** | 4.607** |
| | (4.305) | (4.301) | (2.183) | (2.233) |
| ROE | 0.0225** | 0.0190* | 0.0131 | 0.0110 |
| | (0.011) | (0.011) | (0.009) | (0.009) |
| LIQ | 7.982** | 8.021** | 7.768*** | 8.075*** |
| | (3.598) | (3.554) | (1.803) | (1.831) |
| MTB | −0.0103 | −0.0107* | −0.010 | −0.012 |
| | (0.006) | (0.006) | (0.011) | (0.011) |
| CGS*ISHR | −0.005** | −0.006*** | −0.004* | −0.004** |
| | (0.002) | (0.002) | (0.002) | (0.002) |
| CGS*PSHR | −0.007 | 0.013 | 0.012 | 0.057* |
| | (0.010) | (0.010) | (0.051) | (0.030) |
| CGS*MSHR | 0.006*** | 0.006*** | 0.012*** | 0.013*** |
| | (0.002) | (0.002) | (0.002) | (0.002) |
| Constant | −70.71*** | −76.45*** | −71.60*** | −79.63*** |
| | (7.859) | (7.713) | (5.842) | (5.472) |
| Sargan test | | | 0.017 | 0.099 |
| Observations | 2205 | 2205 | 1980 | 1980 |
| $R^2$ | 0.574 | 0.565 | 0.529 | 0.505 |
| Year FE | Yes | No | Yes | No |

*Notes*: variables are defined in Table 1; standard errors in parentheses.
*Note*: ***$p < 0.01$; **$p < 0.05$; and *$p < 0.1$.

re-estimate our models to include interaction effects between CG and the three ownership factors. We centralized these variables to avoid any multicollinearity issues. Following previous literature (e.g., Katmon et al., 2019), we expect that there is a substitutive (complementary) relationship between shareholding structure variables and CG on CSR when the interaction effect reports a statically significant negative (positive) relationship. To tests for this scenario, we introduced the following model:

$$\begin{aligned}\mathrm{CSRS}_{it} = {} & \alpha_0 + \beta_1 \mathrm{CGS}_{it} + \beta_2 \mathrm{ISHR}_{it} + \beta_3 \mathrm{PSHR}_{it} + \beta_4 \mathrm{MSHR}_{it} \\ & + \beta_5 \mathrm{CGS}_{it} \times \mathrm{ISHR}_{it} + \beta_6 \mathrm{CGS}_{it} \times \mathrm{PSHR}_{it} \\ & + \beta_7 \mathrm{CGS}_{it} \times \mathrm{MSHR}_{it} + \sum_{i=1}^{n} \beta_i \mathrm{CONTROLS}_{it} \\ & + \varepsilon_{it}. \end{aligned} \tag{2}$$

Table 6 presents the results of the interaction variables, similar to previous tables we report four models. Table 6 shows that the CGS index is positive in all models

and institutional shareholding is negative in Models 1 and 3, the pension funds factor is not significant in any model and managerial shareholding is negative and significant in the reported models. The interaction factor CGS*ISHR is negative significant and hence indicates that there is a substitutive relationship between CG and institutional shareholding in influencing CSR. This finding indicates that CG mechanisms could substitute the role of institutional ownership to encourage firms to engage in CSR activities. On the other hand, the interaction factor CG*MSHR is positive and significant. Therefore, this indicates a complementary relationship between CG and managerial shareholding in influencing CSR. Our finding suggests that if firms have good CG mechanisms, the existence of high managerial shareholding will help firms to engage in more CSR activities. Our results also support the argument that governance mechanisms and CSR activities should not be considered independently (Bear et al., 2010; Jamali et al., 2008).

### 6.4.2 | Executive compensation contracts structure

CSR literature and resource dependence theory posit that social and environmental activities require investments that can help in promoting a firm's value in the long-term. However, this may be at the expense of short-term returns (Flammer et al., 2019; Gao et al., 2022; Mahoney & Thorn, 2006; McGuire et al., 2003; Tsang et al., 2021; Zalewski, 2003). This is because corporate social citizenship helps firms to build a good reputation and relations with employees, media, consumers, suppliers, governments and NGOs, leading to future firm benefits (Bear et al., 2010; Cai et al., 2011; Donker et al., 2008; Flammer et al., 2019; Fu et al., 2022; Gao et al., 2022; Hong et al., 2016; Jones, 1995; Lopatta et al., 2016; Nguyen et al., 2020; Parsa et al., 2021; Porter & Kramer, 2006; Rekker et al., 2014; Wang et al., 2015). In addition, and according to agency theory, involvement in CSR activities can be perceived by shareholders and inside decision makers as a non-value-added investment, which could harm firm value (Cai et al., 2011; Hong et al., 2016). Thus, shareholders could pressure executives to minimize investment in CSR activities, given that executives prefer short-term returns over long term not ensured outcomes of CSR investments (Flammer et al., 2019). Therefore, executive compensation can be designed to be an effective tool and an active governance mechanism to align the interests of both executives and stakeholders (conflict–resolution hypothesis) (Elmagrhi, Ntim, Wang, et al., 2020; Flammer et al., 2019; Jones, 2016; Mahoney & Thorn, 2006; Sarhan et al., 2019; Tsang et al., 2021). This, in turn, may direct firms to be more socially responsible (Gao et al., 2022; Hong et al., 2016; Ikram et al., 2019; Mahoney & Thorn, 2006; McGuire et al., 2003; Radu & Smaili, 2021; Zalewski, 2003). Therefore, compensation structure, as a CG channel on the individual executive level, could be used to induce executives to support stakeholders' objectives related to social and environmental investments (Flammer et al., 2019; Gao et al., 2022; Hong et al., 2016; Ikram et al., 2019; Johnson & Greening, 1999; Kemper & Martin, 2010; Mahoney & Thorn, 2006; Radu & Smaili, 2021).

We posit that equity-based compensation (e.g. stock options) as a form of long-term incentive compensation is expected to motivate executives' decisions (including CSR engagement) to increase future stock value (Mahoney & Thorn, 2006; Mamatzakis & Bagntasarian, 2021; McGuire et al., 2003; Rekker et al., 2014).[3] Firm investment in CSR is among corporate strategic decisions that could affect a firm's value and financial performance in the future (Bear et al., 2010; Cai et al., 2011; Donker et al., 2008; Flammer et al., 2019; Hong et al., 2016; Jones, 1995; Lopatta et al., 2016; Mahoney & Thorn, 2006; McGuire et al., 2003; Porter & Kramer, 2006; Wang et al., 2015) and therefore may have a link with equity-based compensation (e.g. stock options) which is a long term pay financial performance sensitivity. However, there is a dearth of studies, which investigate the link between equity-based compensation and CSR performance, particularly in the UK context. Our study, therefore contributes to literature through examining whether long-term incentives have a role to direct firms' CSR decisions in the UK context using a relatively large cross sectional and time series data set.

Previous studies investigating the relationship between executive compensation and CSR performance overlooked the possible association between equity-based compensation and CSR performance. For example, Cai et al. (2011) examined the link between CEO's total compensation (and cash compensation) and CSR. They report a negative association between CEO's total compensation (and cash compensation) and CSR. Other studies examining the association between specific components of executives' compensation and CSR in different institutional contexts found mixed results. For example, McGuire et al. (2003) and Mahoney and Thorn (2006) employed an integrated approach to examine the association between CSR and executive compensation structure (i.e., salary, bonus and stock options) in the US and Canada, respectively. Mahoney and Thorn (2006) detect that stock options have a positive relationship with both total CSR and CSR strengths in 77 Canadian firms during 1995 and 1996. However, McGuire et al. (2003), using one-year data in 1999 from 374 US companies, report evidence for a positive association between CSR weaknesses and CEO

**TABLE 7** Corporate social responsibility and compensation structure.

| Variables | (1) Compensation | (2) Compensation | (3) Compensation-LAG | (4) Compensation-IVREG |
|---|---|---|---|---|
| CGS | 0.525*** | | | |
| | (0.020) | | | |
| ISHR | −0.133*** | | | |
| | (0.038) | | | |
| PSHR | −0.182 | | | |
| | (0.182) | | | |
| MSHR | −0.166*** | | | |
| | (0.023) | | | |
| COMPCNT | 2.806*** | 6.129*** | 5.230*** | 6.080*** |
| | (0.720) | (0.839) | (0.824) | (1.053) |
| EXCOMP | 0.764** | 1.541*** | | 2.620*** |
| | (0.372) | (0.436) | | (0.797) |
| L.EXCOMP | | | 0.973** | |
| | | | (0.453) | |
| FSIZE | 5.843*** | 7.955*** | 7.599*** | 7.528*** |
| | (0.284) | (0.317) | (0.324) | (0.404) |
| LEV | −0.439 | −0.817 | 0.625 | 0.186 |
| | (2.035) | (2.396) | (2.460) | (2.550) |
| ROE | 0.025*** | 0.030*** | 0.030*** | 0.018* |
| | (0.008) | (0.010) | (0.010) | (0.010) |
| LIQ | 7.939*** | 10.700*** | 10.72*** | 9.647*** |
| | (1.665) | (1.950) | (1.949) | (2.008) |
| MTB | −0.011 | 0.002 | 0.001 | 0.000 |
| | (0.011) | (0.012) | (0.012) | (0.012) |
| Constant | −74.250*** | −83.720*** | −68.560*** | −89.800*** |
| | (5.418) | (6.064) | (6.094) | (9.007) |
| Observations | 2095 | 2111 | 1909 | 1866 |
| Sargan test | | | | 2.064 |
| $R^2$ | 0.573 | 0.406 | 0.406 | 0.367 |
| Year FE | Yes | Yes | Yes | Yes |

*Notes*: variables are defined in Table 1; L.EXCOMP is the lag of EXCOMP; standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; and *$p < 0.1$.

long-term incentives. Similarly, Rekker et al. (2014) report a negative relation between CSR and measures of CEO compensation (cash, salary and long-term).

Executive compensation contracts that incorporate CSR objectives (e.g., committing to ethical standards, minimizing emissions, satisfying employees) is a recent development in CG mechanisms to motivate managers to maintain stakeholders' interests (Flammer et al., 2019; Gao et al., 2022; Ikram et al., 2019; Jones, 2016; Radu & Smaili, 2021; Tsang et al., 2021). Therefore, it is common to find executive compensation contacts are tied to both financial performance targets (e.g. EPS growth) and social and environmental targets (e.g. reduction in $CO_2$ emission and employee satisfaction).[4] A plethora of both anecdotal and empirical evidence posit that being environmental and social citizens will lead to maintaining a firm's competitiveness and sustainability, better reputation, and increase in firm value and growth on the long term (Flammer et al., 2019; Gao et al., 2022; Ikram et al., 2019). Therefore, integration of CSR targets in executive

**TABLE 8** Corporate social responsibility (CSR), corporate governance, and shareholding-managerial entrenchment.

| Variables | (1) OLS-ENT | (2) OLS-ENT | (3) IV 2SLS-ENT | (4) IV 2SLS -ENT |
|---|---|---|---|---|
| CGS | 0.530*** | 0.522*** | 0.634*** | 0.628*** |
| | (0.036) | (0.035) | (0.034) | (0.034) |
| ISHR | −0.144** | −0.0356 | −0.302*** | −0.083 |
| | (0.068) | (0.044) | (0.078) | (0.069) |
| PSHR | −0.114 | 0.0912 | −0.122 | 0.306 |
| | (0.085) | (0.132) | (0.287) | (0.273) |
| EMSHR | −7.993*** | −7.556*** | −10.60*** | −9.698*** |
| | (2.511) | (2.537) | (1.308) | (1.339) |
| FSIZE | 6.311*** | 6.612*** | 5.252*** | 5.811*** |
| | (0.504) | (0.502) | (0.293) | (0.268) |
| LEV | 0.0730 | −0.459 | 2.876 | 2.281 |
| | (4.248) | (4.252) | (2.165) | (2.183) |
| ROE | 0.026** | 0.023** | 0.020** | 0.017* |
| | (0.011) | (0.011) | (0.009) | (0.009) |
| LIQ | 8.438** | 8.145** | 7.867*** | 7.562*** |
| | (3.574) | (3.570) | (1.738) | (1.779) |
| MTB | −0.011* | −0.011* | −0.011 | −0.014 |
| | (0.006) | (0.006) | (0.011) | (0.011) |
| Constant | −68.61*** | −74.72*** | −59.12*** | −70.31*** |
| | (7.761) | (7.592) | (4.664) | (4.324) |
| Sargan test | | | 0.294 | 0.0142 |
| Observations | 2205 | 2205 | 1980 | 1980 |
| $R^2$ | 0.565 | 0.555 | 0.527 | 0.513 |
| Year FE | Yes | No | Yes | Yes |

*Notes*: variables are defined in Table 1; EMSHR is a dummy variable take 1 if managerial shareholding is greater than or equal to 25, and zero otherwise; Standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; and *$p < 0.1$.

compensation as a CG mechanism helps firms to align managers' orientation and preferences from short-term returns (e.g. career opportunity, short-term compensation, and beating quarterly earnings targets) to CSR initiatives with potential long-term rewards.

Based on S&P 500 firms over a 10 years period from 2004 to 2013, Flammer et al. (2019) find empirical evidence that "*CSR contracting*" has a positive effect on firms' long-term orientation, firm value, and environmental and social performance. Similarly, using a sample of firms in the S&P 500 Index in 2013, Hong et al. (2016) find that connecting executives' compensation with CSR has a positive effect on a firm's social performance. There is a dearth of studies investigating the impact of CSR contracting on firm environmental and social performance, in general, and that the few studies investigate this phenomenon came from the US context. Our study therefore contributes to literature through examining whether incorporation of CSR targets to executives' incentives has a role to direct firms' CSR decisions in the UK context using a relatively recent and large cross sectional and time series data set.

Based on the previous theoretical and empirical evidence, we expect a positive relationship between stock options compensation and CSR related compensation policy on the one-hand, and CSR scores on the other. Equation (1) will be re-estimated using stock options and CSR related compensation to examine the role of compensation structure as an effective CG mean on firms' CSR performance.

$$\begin{aligned}\mathrm{CSRS}_{it} = {} & \alpha_0 + \beta_1 \mathrm{CGS}_{it} + \beta_2 \mathrm{ISHR}_{it} + \beta_3 \mathrm{PSHR}_{it} + \beta_4 \mathrm{MSHR}_{it} \\ & + \beta_5 \mathrm{COMPCNT}_{it} + \beta_6 \mathrm{EXCOMP}_{it} \\ & + \sum_{i=1}^{n} \beta_i \mathrm{CONTROLS}_{it} + \varepsilon_{it}, \end{aligned} \tag{3}$$

**TABLE 9** Corporate social responsibility (CSR), corporate governance, and shareholding—robustness checks.

| Variables | (1) Logit | (2) Logit | (3) Logit-ENT | (4) Logit-ENT |
|---|---|---|---|---|
| CGS | 0.055*** | 0.057*** | 0.057*** | 0.058*** |
| | (0.004) | (0.004) | (0.004) | (0.004) |
| ISHR | −0.012* | −0.008* | −0.010 | −0.008 |
| | (0.007) | (0.005) | (0.007) | (0.005) |
| PSHR | −0.022 | 0.040 | −0.017 | 0.040 |
| | (0.073) | (0.030) | (0.073) | (0.031) |
| MSHR | −0.037*** | −0.034*** | | |
| | (0.005) | (0.005) | | |
| EMSHR | | | −1.373*** | −1.251*** |
| | | | (0.213) | (0.207) |
| FSIZE | 0.981*** | 0.970*** | 0.971*** | 0.959*** |
| | (0.060) | (0.057) | (0.059) | (0.056) |
| LEV | 0.501 | 0.353 | 0.510 | 0.358 |
| | (0.381) | (0.380) | (0.382) | (0.380) |
| ROE | 0.003** | 0.003* | 0.003** | 0.003* |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| LIQ | 1.362*** | 1.233*** | 1.368*** | 1.233*** |
| | (0.293) | (0.289) | (0.293) | (0.289) |
| MTB | −0.002 | −0.001 | −0.002 | −0.002 |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Constant | −18.06*** | −18.46*** | −18.12*** | −18.47*** |
| | (0.967) | (0.927) | (0.961) | (0.921) |
| Observations | 2205 | 2205 | 2205 | 2205 |
| Year FE | Yes | No | Yes | No |

*Notes*: variables are defined in Table 1; EMSHR is a dummy variable take 1 if managerial ownership is greater than or equal to 25%, and zero otherwise; Standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; and *$p < 0.1$.

where, COMPCNT is a measure of whether a company applies a CSR related compensation policy, and EXCOMP is executive stock option compensation.

As expected, Models 1 and 2 of Table 7 show a significant and positive impact of stock options and CSR related compensation policy on CSR scores. This significant effect suggests that stock options and CSR related compensation policy align management interests with stakeholders' CSR objectives, and thereby encourage executives to improve CSR performance. Our findings are consistent with the findings of previous studies (e.g., Flammer et al., 2019; Hong et al., 2016; Ikram et al., 2019; Mahoney & Thorn, 2006). Furthermore, and similar to Hong et al. (2016) and Mahoney and Thorn (2006), we regressed this year's stock option compensation on next year's CSR scores. The results of this lagged structure, which are shown in Model 3 of Table 7, support our findings in Models 1 and 2 of Table 7. Additionally, Model 2 of Table 7 was re-estimated using 2SLS to control for any possible endogeneity issues and the results are reported in Model 4 of Table 7.

### 6.4.3 | Entrenched managers effect

Previous studies argue that entrenched managers might get involved more with CSR activities to obtain the required support from social and environmental activists (e.g. Prior et al., 2008). Additionally, they may use the power and protection provided by their large shareholdings to execute their social and environmental strategies irrespective of risky consequences (McGuire et al., 2003). Thus, for additional checks of the probable nonlinear relationship between managerial shareholding and CSR, we re-measure the *MSHR* variable with an entrenchment

variable *EMSHR* that takes one if the managerial shareholding is equal to, or higher than, 25% and zero otherwise. The reported results in Table 8 show that *EMSHR* has a negative and significant association with the CSR score. These results are consistent with our pervious findings and in line with H4, supporting the notion that insiders with more concentrated shareholdings are less probably investment in non-value-creating CSR activities (Barnea & Rubin, 2010).

As a final check, we replace our main CSR score with a dichotomous factor that takes one if the company has a CSR score of more than the average of the sample and zero otherwise. We report the results in Table 9 and the findings are similar to our results reported in Table 4.

To recap, our findings show the important impact of CG, compensation structure and shareholding structure on CSR activities, and that there is an interaction effect between CG and the investigated shareholding variables.

## 7 | CONCLUSIONS

This paper analyses whether CSR policies of UK enterprises can be related to different types of owners (external and internal) and CG efficiency. In particular, we investigate the role of institutional investors, pension funds, management shareholdings, governance mechanisms, stock option compensation and CSR related compensation contracts on CSR performance. Based on a sample of nonfinancial FTSE 350 listed firms for the period from 2002 to 2016, we argue that different investors are associated with CSR performance (economic, environmental and social), in different ways. CSR might be evaluated in different ways as different owners have different roles and positions in society. Additionally, we propose that compensation structure could play a key role as an effective CG mechanism to steer executive decisions toward achieving stakeholders' CSR related objectives.

Our findings suggest that effective CG has a positive and significant impact on CSR activities. This indicates that firms applying sound governance mechanisms are more likely to engage in CSR activities that consider interests of stakeholders. We also conclude that in many cases shareholding structure does matter for CSR. In particular, institutional (indicating strong monitoring role) and managerial (proxy for alignment of interests between insiders and outside ownership) shareholdings have a negative association with CSR performance. Managerial shareholding is related to poor CSR activities because managers may consider other (non-CSR efficiency) reasons to conduct their investment decisions (insiders might invest in firms following their contracts or pension schemes) (Dam & Scholtens, 2012). Another explanation for that could be that inside shareholders in the UK may consider CSR activities to decrease firm value. Thus, the more insider ownership, the greater the costs they may bear for these non-value-added responsible investments (Barnea & Rubin, 2010). Similarly, we report that institutional investors are linked to poor social and environmental performance. Our results indicate that UK institutional investors may be reluctant to engage in long-term projects (e.g. CSR activities) without certain returns of such investment. One explanation for this result might be related to the foreign ownership of UK listed firms. Based on the Office of National Statistics in 2016, FTSE 100 firms have 56% of ownership classified as foreign related investments (rest of the world) including non-individual investors (Office for National Statistics (ONS), 2016). Such investors might not be supportive of CSR activities in UK listed firms.

In addition, we report that the shareholding of pension funds is neutral regarding CSR activities. One explanation is that such investors assess costs versus returns of social and environmental investments and that, within the market equilibrium assumption, both will trade off each other (Dam & Scholtens, 2012; McWilliams & Siegel, 2001), resulting in a neutral relationship between investment attitudes and socially and environmentally responsible activities. We also detect an interaction between CG and some shareholding structure factors in influencing CSR. This indicates that the negative effect of shareholding on CSR is contingent on a firm's CG soundness. Finally, we find that firms can use compensation structure (e.g. stock option compensation and CSR related compensation policy) as an effective CG tool to motivate executives to meet stakeholder objectives to improve a firm's social and environmental performance.

Our study contributes to CG and CSR literature through examining the demand for CSR activities among different types of shareholders (internal and external). This can be seen as complementary to the theory related to firm perspectives or the supply factors (Siegel & Vitaliano, 2007). This study also contributes to the literature by providing empirical evidence on the interrelationship between governance mechanisms, shareholding structure, compensation structure and CSR activities within the UK context. Therefore, future CG studies should not consider individual shareholding structures in isolation from other CG mechanisms. Our results contribute to the CG-CSR literature by examining channels on the individual executive level through which CG impacts firms' social and environmental performance. Furthermore, our findings support and extend the CSR literature emphasizing the importance of diversifying the executive incentives to include both financial and nonfinancial/value-relevance performance measure such as

CSR targets (Flammer et al., 2019; Hong et al., 2016). Furthermore, the study employs a multi-theoretical model to examine different determinants of the CSR activities within the UK context.

Our findings have different practical implications. First, firms would need to consider the benefits of having good governance mechanisms including compensation structure to shape their CSR strategies and plans toward maintaining the interests of different stakeholders. Equally important, firms would need to understand the different investment behaviour of their major shareholders and hence how these investors evaluate CSR activities. Our results indicate that institutional and managerial shareholders may not appreciate investment in CSR as they may perceive it as non-value-added activity, particularly in the short run. However, CG mechanisms such as equity pay and CSR performance contracts could be used by boards of directors to align executive interests with stakeholders and thereby help corporate decisions to be more sustainable and firms to be responsible citizens. In addition, environmental and social improvements should not be left for firms and shareholders' discretion, however incentives (such as compensation contracts) and government regulations (such as carbon pricing and fair tax rates) should be used to steer firms' decisions toward achieving the environmental and social objectives. Second, policy makers should promote in a more direct manner the transparency of CSR performance and the role of different shareholders and compensation in respect to CSR activities. Third, from an academic viewpoint, it is important to investigate different owners' perspectives and understand the heterogeneity of these owners toward long-term strategic plans and decision, such as CSR investments.

Similar to other studies within this context, our paper has some limitations. Our sample uses the FTSE 350 that consistent of large UK public firms that might be willing to improve their CSR performance and ranking. In addition, our study employs a single country analysis (the UK) and hence future studies with cross-country analysis may increase our understanding of the CSR behaviours in different institutional settings. Moreover, Bhagat and Bolton (2008) argue that choosing instruments in corporate finance and CG "*will never be easy*" and is challenging in such types of studies. Therefore, we used lagged endogenous variables as our instruments. This might be seen as a limitation as lagged endogenous variable is probably still endogenous. Hence, we invite other studies to find and examine other types of instruments. In addition, we investigate only three shareholding factors (institutional, pension and managerial), and thus future studies could examine different factors, such as mutual funds shareholding, government shareholding and family shareholding. Overall, we believe that our results shed light on the role of governance mechanisms, shareholding structure and compensation structure on CSR performance, by employing a large set of the UK cross-sectional and time series data.

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## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## ORCID

*Ahmed A. Sarhan* https://orcid.org/0000-0001-6527-1547

*Basil Al-Najjar* https://orcid.org/0000-0002-1161-0686

## ENDNOTES

[1] For each firm, over 750 data points were collected, and these were categorized into more than 250 key performance indicators. These indicators are combined into 18 categories within four main subcategories: Corporate Governance, Environment, Economic, and Social Indicators. The scores are normalized to have values of 0%–100%.

[2] Using a sample of 374 US companies, McGuire et al. (2003) report that high levels of activist institutional shareholdings (pension funds) strengthen the positive effect of salary and long-term incentives on poor social performance.

[3] Short-term components of compensation include salary and bonus. We did not investigate the salary component of compensation effect on CSR performance as it is a fixed component, which is independent of a firm's performance. Similarly, the bonus component of compensation is used as incentive for executives to achieve short-term performance targets (Mahoney & Thorn, 2006; McGuire et al., 2003; Rekker et al., 2014).

[4] Flammer et al. (2019) document that about one from three S&P 500 firms use CSR contracting by 2013. Similarly, Hong et al. (2016) report around 40% of executives in their sample has CSR incentive contacts.

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