CEO narcissism, power, and corporate SDG reporting: An empirical analysis

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Abstract

Grounded in both agency and upper echelons perspectives, this paper examines the effects of CEO narcissism and power on corporate reporting on the Sustainable Development Goals (SDGs). We theorise that CEOs' narcissistic tendencies and power will influence their firms' SDGs engagement and reporting practices. We also examine whether SDGs reporting affects firm performance. Based on a sample of FTSE 100 companies for the period 2018-2022, we test our ideas using generalised estimating equations. The results show that CEO narcissism is positively related to SDGs reporting; however, this effect is weaker in firms led by older narcissistic CEOs. Further, CEO power is negatively associated with SDGs reporting, suggesting that firms led by powerful CEOs are reluctant to integrate the SDGs. Finally, corporate SDGs reporting lacks any value-enhancing effect on firm performance, supporting the symbolic perspective of sustainability management. Our results contribute to the literature on SDGs accounting and enrich our understanding of the underlying dynamics shaping corporate disclosure practices.

Keywords: Upper echelons**,** CEO narcissism, CEO power, SDG reporting, Firm performance, Corporate governance

1 Introduction

This paper examines whether and the extent to which chief executive officer's (CEO) attributes (narcissism and power in particular) affect corporate reporting on the Sustainable Development Goals (SDGs), and the instrumental role of SDGs engagement on firm performance. The launch of the United Nations' (UN) 2030 Agenda for Sustainable Development signified a breakthrough moment within the sustainable development discourse and provided a roadmap for "governmental, corporate and civil society action for a shared and lasting prosperity" (Hajer et al., 2015, p. 1657). This comprehensive agenda outlines 17 interconnected SDGs and sub-targets aimed at addressing diverse global challenges ranging from poverty reduction to climate change mitigation. Given the substantial resources required to achieve these goals, there have been considerable political and social pressures on corporations to integrate the SDGs into their strategies and operations (Awuah, Yazdifar, & Elbardan, 2023; Bebbington & Unerman, 2020). As a result, SDGs reporting has become increasingly important for businesses to demonstrate their contributions to the 2030 Agenda. Consequently, SDGs reporting research has garnered traction within the accounting academic and practitioner community (Bebbington & Unerman, 2018, 2020; Heras-Saizarbitoria, Urbieta, & Boiral, 2021; KPMG, 2022; Pizzi, Caputo, Corvino, & Venturelli, 2020; PwC, 2019). Prior research has explored why companies differ in their reporting on the SDGs (e.g., Bose & Khan, 2022; García-Sánchez, Rodríguez-Ariza, Aibar-Guzmán, & Aibar-Guzmán, 2020; Pizzi, Del Baldo, Caputo, & Venturelli, 2022; Rosati & Faria, 2019a, 2019b). This stream of literature suggests that corporate SDGs reporting is not only a function of organisational factors but also depends on institutional and cultural factors.

Despite the extensive literature on the drivers of corporate SDGs reporting, the role of CEOs in this context has received limited attention. CEOs play an important role in corporate reporting, with their personal attributes, values, and mental models shaping firms' disclosure behaviour (Arena, Michelon, & Trojanowski, 2018; Garrido-Ruso, Aibar-Guzmán, & Suárez-Fernández, 2023; Hambrick, 2007). For this reason, we draw on the notions of CEO narcissism and power as potential explanations for SDGs reporting for two main reasons. First, the SDGs are intergovernmental commitments to stimulate action in critical areas for humanity and the planet (Bebbington & Unerman, 2018; UN, 2015). Although the private sector's engagement is largely voluntary, various stakeholder groups acknowledge its pivotal role in the sustainable development agenda. For narcissistic CEOs, the SDGs provide an opportunity to generate a 'narcissistic supply' (Aabo & Eriksen, 2018; Kernberg, 1975) through SDGs reporting. Given the widespread publicity and stakeholder interest in the SDGs, narcissistic CEOs are more inclined to provide SDGs-related disclosures to satisfy their need for attention and praise. Additionally, while the economic benefits of sustainable practices often require a longer period to materialise and, in most instances, are uncertain, the managerial benefits tend to be straightforward, given the desirability of such practices (Al-Shammari et al., 2019; Patrenko, Aime, Ridge, & Hill, 2016). Second, corporate SDGs reporting in its current form is largely subjective and lacks strict reporting guidelines, giving businesses control over the type and extent of information disclosed. In this regard, CEO power is an important factor to consider as it enables CEOs to mobilise resources for strategic actions and determine salient actors and pressures to prioritise (Finkelstein, 1992; Walls & Berrone, 2017). Previous studies show that CEO power affects a firm's sustainability disclosure practices (Chu, Liu, & Chiu, 2023; Garcia-Sanchez, Raimo, & Vitolla, 2021; Jiraporn & Chintrakarn, 2013; Muttakin, Khan, & Mihret, 2018). As Walls and Berrone (2017) argue, CEOs are more likely to pursue strategies when they have personal understanding, vested interest, along with the requisite expertise. This tendency is stronger in firms led by powerful CEOs, as their power reduces the board's monitoring capacity, particularly regarding voluntary disclosure practices (Muttakin et al., 2018). Moreover, powerful CEOs are recognised as the main actors with managerial authority to control agendas (Byun & Al-Shammari, 2021). In this case, powerful CEOs may trivialise actions that do not align with their interests (Bebchuk, Fried, & Walker, 2002; Harper & Sun, 2019). Given that the SDGs are less corporate-focused with the 'business case' still in contention (Scheyvens, Banks, & Hughes, 2016), we argue that powerful CEOs may be reluctant to commit resources to SDGs-related initiatives. This reluctance stems from a desire to protect short-term shareholder demands or because the incremental personal gains from these actions are not material (Jiraporn & Chintrakarn, 2013).

Following the launch of the SDGs, businesses have been encouraged to rethink their value-creation processes to integrate sustainable development concerns into strategies and operational activities (Dyllick & Muff, 2016; Scheyvens et al., 2016). However, reconciling the pursuit of shareholder value with societal aspirations such as the SDGs often presents a challenge for businesses (García Meca & Martínez Ferrero, 2021). Given the intricate interplay between sustainability practices and corporate performance, as evidenced by the mixed findings in the literature, it remains uncertain whether SDGs engagement can generate any tangible economic benefits for businesses. While SDGs engagement undoubtedly holds potential as a valuable strategic choice for organisations, it is imperative to recognise that it may also engender non-strategic outcomes. This becomes particularly salient in cases where managers' self-serving motives drive firms' SDGs-related initiatives. In this sense the central question arises: If the motive for SDGs engagement is partly rooted in the self-serving interests of managers, could this diminish the likelihood of yielding any economic outcomes?

Using a sample of leading UK companies (325 CEO-firm observations) for the period 2018 – 2022, this study shows that CEO narcissism positively affects corporate reporting on the SDGs. However, the effect of CEO narcissism on SDGs reporting weakens with the age of the CEO, indicating the lack of a uniform effect. Further, the findings reveal that CEO power negatively affects firms' SDGs initiatives and related disclosures. Finally, the results underscore the lack of an effect of corporate SDGs reporting on firm performance, supporting the symbolic perspective of corporate sustainability reporting. Our study contributes to the prevailing literature in several ways. First, it adds to the limited literature examining the influence of CEO attributes on corporate SDGs reporting (Garrido-Ruso et al., 2023). We extend this literature by demonstrating that CEO characteristics, particularly narcissism and power, play a pivotal role in firms' SDGs-related disclosure practices. In doing so, we enrich the discourse on the drivers of SDGs reporting by emphasising the importance of CEO-level factors that shape firms' orientation towards the SDGs. Second, we extend the existing knowledge on upper echelons theory to consider the interaction effects of CEO personality traits and other demographic attributes. We provide empirical evidence that the interaction of CEO age and narcissism weakens the effect of CEO narcissism on SDGs reporting. Thus, our study responds to recent calls to investigate how narcissism interacts with other top management demographic characteristics (Cragun, Olsen, & Wright, 2020). Lastly, our study contributes to the current debate on the instrumental role of corporate SDGs-related initiatives and disclosures (Awuah et al., 2023; García Meca & Martínez Ferrero, 2021). Using a composite SDGs reporting score, we investigate whether companies that demonstrate greater engagement with the SDGs achieve superior performance. Consistent with the symbolic perspective of SDGs reporting (Avrampou, Skouloudis, Iliopoulos, & Khan, 2019; García Meca & Martínez Ferrero, 2021; Silva, 2021), we extend the conclusions of previous studies regarding the use of SDGs reporting for legitimacy and impression management rather than a substantive effect on firm performance.

The remainder of the paper is structured as follows: Section 2 provides the theoretical framework and a review of corporate SDGs reporting research. In Section 3, we develop our research hypotheses. Section 4 explains the research methodology. Section 5 presents the main empirical results, in addition to supplementary analyses conducted. The results are discussed in Section 6, and Section 7 provides conclusions and implications.

2 Theoretical framework and literature review

2.1 Theoretical perspectives

This paper is grounded in the upper echelons (Hambrick, 2007; Hambrick & Mason, 1984) and agency perspectives (Jensen & Meckling, 1976). The upper echelons theory states that corporate executives have bounded rationality and are susceptible to cognitive biases (Arena et al., 2018; Hambrick, 2007). Upper echelons theorists suggest that strategic decision-making is primarily a result of an interpretive process rather than a purely technical endeavour. As Hambrick (2007) asserts, top executives interpret strategic situations they encounter through highly personalised lenses, shaped by their experiences, values, and personalities. In turn, these personalised constructs influence executives' strategic choices and the resulting organisational outcomes. Given the challenge of directly measuring executives' cognitions, values, and perceptions, the theory suggests that observable managerial attributes such as age, education and work experience can serve as reasonable proxies (Arena et al., 2018; Carpenter, Geletkancz, & Sanders, 2004). Accordingly, organisational outcomes are a reflection of these observable managerial attributes. In line with this logic, several studies have examined the effect of top executive's demographic and psychological attributes on various corporate strategic choices and outcomes (Aibar-Guzmán & Frías-Aceituno, 2021; Arena et al., 2018; Buchholz, Lopatta, & Maas, 2020; Gerstner, König, Enders, & Hambrick, 2013).

Among the key management executives, the prevailing upper echelons research has largely focused on CEOs, underscoring their status as powerful actors within organisations. CEOs represent the primary 'architects' within organisational structures, exerting substantial influence over the strategic decision-making process (Dabbebi, Lassoued, & Khanchel, 2022; Hutzschenreuter, Kleindienst, & Greger, 2012). They possess significant power and authority, enabling them to directly influence the firm's policies, frame strategic choices, and determine the context in which they are implemented. In their meta-analysis on CEO effect on strategic choices and outcomes, Quigley and Hambrick (2015) concluded that the effect of CEOs on company outcomes has increased significantly over the last 50 years. Several scholars argue that the values and cognitions of CEOs become ingrained within their organisations and manifest themselves in organisational strategic choices and outcomes (Arena et al., 2018; Hambrick, 2007). For instance, Yim (2013) shows that a CEO's age predicts a firm's acquisition activity. Byun and Al-Shammari (2021) reveal that CEOs with high narcissistic inclinations and power significantly influence the likelihood of product recalls. Tang, Qian, Chen, and Shen (2015) document that hubristic CEOs engage in less socially responsible activities and more socially irresponsible ones. García-Sánchez, Aibar-Guzmán, Aibar-Guzmán, and Azevedo (2020) find that more able CEOs are inclined to providing comparable and useful CSR information. This stream of research highlights that CEO attributes, such as narcissism and power, often restrict the influence of other executives and directors over corporate strategy (Arena et al., 2018).

Moreover, according to agency theorists (Jensen & Meckling, 1976), CEOs, acting as agents of the shareholders, do not always act in the best interests of shareholders, often resulting in agency problems. Shareholders can mitigate this agency problem by introducing appropriate incentive schemes and monitoring mechanisms such as the board of directors (Chin, Hambrick, & Treviño, 2013). However, boards dominated by powerful CEOs will fail to effectively exercise their monitoring role (Bebchuk et al., 2002). According to the managerial power hypothesis (Bebchuk et al., 2002), boards do not always bargain or monitor CEOs at arm's length because of the CEO's influence over them. As Garcia-Sanchez et al. (2021) stress, powerful CEOs can condition the board of directors, thereby reducing the board's effectiveness, particularly on issues related to discretionary disclosures. Along these lines, Li, Gong, Zhang, and Koh (2018) suggest that powerful CEOs may manipulate disclosure policy so that their rent-seeking behaviour will not be revealed. Additionally, CEO power increases managerial entrenchment and further misaligns the interests of managers and shareholders (Harper & Sun, 2019; Sheikh, 2018). CEOs play an important role in corporate decision-making, including sustainability-related initiatives. As the core of the executive team, the CEO's mindset regarding the SDGs is critical towards SDGs reporting, as the power vested in a CEO can have significant consequences for the firm's long-term strategies (Al-Shaer, Albitar, & Liu, 2023). Given that managerial effort is unobservable, powerful CEOs are free to pursue opportunistic and self-serving objectives at the expense of shareholders' interests. Thus, powerful CEOs may feel reluctant to invest in sustainability-oriented initiatives, unless such actions are directly linked to their self-interests (Muttakin et al., 2018; Walls & Berrone, 2017). Conversely, powerful CEOs may commit firm resources to social and environmental practices to improve their public image and reputation, regardless of the adverse impact on shareholder value (Al-Shaer et al., 2023).

While previous studies have examined the role of CEO attributes in corporate strategic outcomes, we have a limited understanding of how such attributes affect the decisions to integrate the SDGs in corporate strategy and reporting practices. Thus, the upper echelons and agency perspectives offer a useful theoretical framing to extend the literature on the antecedents of corporate SDGs reporting.

2.2 Corporate SDGs reporting

The introduction of the SDGs in 2015 was a bold attempt by the UN to tackle the world's most relevant social, economic and environmental challenges. Unlike the Millennium Development Goals which largely focused on human development outcomes, the SDGs Agenda takes a more holistic view to capture essential aspects of the 'triple bottom line' approach to sustainability (Scheyvens et al., 2016). Although the SDGs represent intergovernmental commitments and are less corporate-focused, the private sector's participation is crucial to advancing sustainable development (Bebbington & Unerman, 2018). As Weerasinghe, Samudrage, and Gunarathne (2023) point out, the investment requirements of SDGs-related actions suggest that they cannot be left solely for national governments to fulfil. Accordingly, businesses have been encouraged to integrate the goals into their strategies, business models, operations and reporting cycle (UN, 2022, 2023). This shift has prompted businesses to reconsider their sustainability initiatives and value creation processes, adopting a proactive approach to identify sustainable development trajectories based on the SDGs (Garrido-Ruso et al., 2023; Nicolo', Zampone, De Iorio, & Sannino, 2024). Given that the SDGs have gained traction and salience among diverse stakeholder groups, SDGs reporting has become imperative for firms to demonstrate how their actions are contributing to the goals in an attempt to meet stakeholder expectations and preserve their legitimacy (Manes-Rossi & Nicolo', 2022; Nicolò, Zampone, Sannino, & Polcini, 2024).

The voluntary nature of corporate engagement with the SDGs coupled with the ongoing debates regarding the business case for the SDGs has spurred scholarly interest in understanding the antecedents of SDGs reporting (García-Sánchez, Aibar-Guzmán, Aibar-Guzmán, & Rodríguez-Ariza, 2020). Previous studies have examined the drivers of SDGs engagement and subsequent reporting from a range of perspectives. External drivers of SDGs reporting are tied to factors such as institutional pressures (van Zanten & van Tulder, 2018), culture (Pizzi et al., 2022), imitation and competitive pressures (Zampone, García-Sánchez, & Sannino, 2023), national sustainability regulation (Bose & Khan, 2022), Global Reporting Initiative (GRI) compliance and external assurance (Subramaniam, Akbar, Situ, Ji, & Parikh, 2023). In addition, firm-specific antecedents include corporate governance, relative size, intangible assets, board attributes, and institutional ownership (García-Sánchez, Aibar-Guzmán, Aibar-Guzmán, & Somohano-Rodríguez, 2022; Rosati & Faria, 2019b). Accordingly, theories including legitimacy, agency, and institutional perspectives underpin most of the prevailing research. Despite these insightful studies, few studies have explored the effects of top executives' characteristics as potential antecedents of SDGs reporting (Garrido-Ruso et al., 2023; Weerasinghe et al., 2023). Several scholars maintain that SDGs engagement can generate competitive advantages for reporting companies (Avrampou et al., 2019; Bebbington & Unerman, 2018; Weerasinghe et al., 2023). However, if SDGs engagement does indeed offer competitive advantages for businesses, it is improbable that there would be significant heterogeneity in organisational responses and approaches to the SDGs. Part of the answer is thought to lie in executives' interpretation of the SDGs and their relevance for corporations. We contend that the voluntary nature of SDGs engagement coupled with the need for prioritisation offers opportunities for executives to differ in their approach to the SDGs. This, we believe, creates room for such strategic decisions to be influenced by the personalised attributes of executives.

In particular, CEOs play a pivotal role in firms' sustainability initiatives, with their decisions often carrying significant influence, even potentially overriding those of other executives and the board (Walls & Berrone, 2017). Given the seeming consensus that executives' cognitive biases and preferences affect how they interpret business situations (Carpenter et al., 2004; Hambrick & Mason, 1984), we argue that these attributes may influence corporate SDGs reporting. Nevertheless, we have a limited understanding of how such personal attributes might influence firms' decisions to integrate the SDGs into their reporting practices. While some studies have attempted to address this gap, the findings remain inconclusive. For example, Weerasinghe et al. (2023) examine the role of top management team diversity in corporate SDGs reporting. The authors observe the lack of any observable relationship between top management team diversity and SDGs reporting. In contrast, Garrido-Ruso et al. (2023) show that the educational level, nationality and narcissistic inclinations of CEOs significantly influence SDGs reporting. Similarly, García-Sánchez et al. (2022) document that CEOs' training in sustainability issues positively affects SDGs reporting. Our study contributes to this stream of research by considering two important attributes of CEOs that have gained traction in the strategic management literature, namely CEO narcissism and power (Deore, Mahlendorf, & Wu, 2023; Sheikh, 2019; Tang, Mack, & Chen, 2018).

3 Hypothesis development

3.1 CEO narcissism and corporate SDGs reporting

Among the extensive range of CEO attributes, narcissism has been described as an important executive trait that influences organisational strategic outcomes (Chatterjee & Hambrick, 2011; Gerstner et al., 2013; Reina, Zhang, & Peterson, 2014). Narcissism relates to an inflated view of self and a preoccupation with the continuous reinforcement of this self-view. Narcissism is associated with personality traits including the grandiose sense of superiority, entitlement, lack of empathy, arrogance and constant demand for attention and admiration (Bogart, Benotsch, & Pavlovic, 2004; Emmons, 1987). According to Gerstner et al. (2013, p. 262), the concept of narcissism has long been identified by social and clinical psychologists as "a clinical disorder characterised by excessive self-admiration, self-aggrandisement, and a tendency to see others as an extension of one's self". Nevertheless, several scholars suggest that rather than a clinical disorder, narcissism can be considered as a personality dimension such that individuals can be assigned scores along that dimension (Campbell, Goodie, & Foster, 2004; Chatterjee & Hambrick, 2007). Accordingly, various psychology scholars have developed psychometric scales to measure narcissism (Emmons, 1987; Raskin & Hall, 1979).

The literature identifies two elements of narcissism: cognitive and motivational dimensions. From the cognitive viewpoint, narcissists are characterised as exceptionally confident, competent, and creative, driven by a profound belief in their superior qualities and capabilities. Conversely, the motivational aspect underscores a perpetual need for the reaffirmation of these 'superior qualities', manifesting as an incessant craving for attention and admiration (Campbell & Campbell, 2009; Campbell et al., 2004; John & Robins, 1994). Kernberg (1975) coined the term 'narcissistic supply' to describe this need, highlighting that, while some aspects may be internally derived, a significant portion of narcissistic supply emanates from external channels in the form of attention, applause, and adulation (Chatterjee & Hambrick, 2007). The pursuit of a narcissistic supply propels narcissists to consistently desire to be the centre of attention. As Morf and Rhodewalt (2001) point out, narcissists exhibit a chronic pursuit of continuous external self-affirmation, necessitating a consistent stream of image reinforcement. This compels narcissistic leaders to undertake bold initiatives that are highly visible to a discerning audience, thereby eliciting admiration for their inherent boldness. Accordingly, the narcissism hypothesis suggests that executive narcissism influences a variety of corporate strategic outcomes such as product recalls (Byun & Al-Shammari, 2021), adoption of technological discontinuities (Gerstner et al., 2013), earnings management (Buchholz et al., 2020), and financial performance (Olsen, Dworkis, & Young, 2014).

In one of the few studies to examine narcissism as a potential driver of SDGs reporting, Garrido-Ruso et al. (2023) reveal that a CEO's personal need for attention and praise influences SDGs reporting, though this effect was not confirmed in their sensitivity analysis. This finding aligns with several studies on the impact of CEO narcissism on discretionary corporate initiatives such as corporate social responsibility (CSR) (Al-Shammari et al., 2019; Dabbebi et al., 2022; Patrenko et al., 2016; Tang et al., 2018). According to Gerstner et al. (2013), narcissistic CEOs have a strong sense of personal capability, translating into extreme confidence and reducing uncertainties related to new developments. This grandiose self-confidence coupled with their relentless craving for attention, drives narcissistic CEOs to aggressively pursue bold strategic actions capable of generating a narcissistic supply. Furthermore, a narcissistic CEO's objective of sustaining a grandiose self-image can be achieved by engaging in socially desirable activities that attract attention and admiration (Byun & Al-Shammari, 2021). Given that corporate decisions largely reflect CEOs' personal preferences, "narcissistic CEOs are expected to engage in actions that would generate fame and popularity for them" (Al-Shammari et al., 2019, p. 109). In this context, the SDGs provide a platform for narcissistic CEOs to generate a narcissistic supply. First, the SDGs represent a comprehensive framework to address the world's most pressing sustainability challenges and create a better society for present and future generations (Pizzi et al., 2020; Zampone, Nicolò, Sannino, & De Iorio, 2024). Achieving the 2030 Agenda requires bold, ambitious SDGs-related actions by governments and corporations (UN Global Compact, 2024). In this regard, the SDGs offer an avenue for narcissistic CEOs to exhibit leadership and creativity by positioning themselves on the moral high ground of sustainable development. Second, the SDGs have gained mainstream recognition among diverse stakeholders, making them socially desirable and attracting positive media attention. The increased expectations from regulators, investors, customers, and employees have placed significant pressure on businesses to take a leading role in tackling complex sustainability challenges (Awuah et al., 2023; Zampone et al., 2024). Moreover, the SDGs are not only highly visible but also constitute a guiding vision for governments, corporations, and civil society to transition the world into the "next era of human development that is transformational" (Caprani, 2016, p. 102). By leveraging the social desirability of the SDGs, narcissistic CEOs may commit greater time and resources to these goals in an attempt to satisfy their personal need for attention and admiration. This can be achieved by engaging in SDGs-related initiatives and communicating the firm's contributions to the 2030 Agenda, thereby drawing favourable stakeholder perceptions. Along these lines, SDGs reporting can effectively channel media focus, admiration, and praise to narcissistic CEOs, thereby fulfilling their need for attention and adulation. Therefore, we propose the following hypothesis:

Hypothesis 1: CEO narcissism is positively associated with corporate SDGs reporting.

3.2 CEO power and corporate SDGs reporting

CEO power has been the subject of considerable debate given its effect on strategic decisions and outcomes. This stream of literature suggests that CEO power may either be harmful or beneficial for corporations. Proponents maintain that powerful CEOs are flexible and adapt quickly to changing business environments, resulting in improved organisational performance (Byun & Al-Shammari, 2021; Donaldson & Davis, 1991; Walls & Berrone, 2017). Conversely, several scholars suggest that CEO power adversely affects organisational performance, given the risk that powerful CEOs may pursue objectives that may not be aligned with the best interests of shareholders (Kashmiri & Brower, 2016; Pavlik, Scott, & Tiessen, 1993). According to this perspective, CEO power causes agency problems and limits the board's capacity to adequately exercise its monitoring role (Harper & Sun, 2019; Sheikh, 2019). However, CEOs differ in how much power they have relative to the board, and thus their ability to influence the decision-making process (Chin et al., 2013). For instance, CEOs differ in the proportion of shareholding in their firms relative to outside directors, and how long they have been in position. Such differences determine the extent to which CEOs can affect strategic actions, particularly sustainability-related initiatives such as the SDGs. In this study, we focus on two forms of CEO power: ownership power and informal power (tenure), as important sources of voting power and legitimacy.

Prior research suggests that CEOs' informal power increases with each year in office and becomes institutionalised over time (Lewis, Walls, & Dowell, 2014). From an agency perspective, ownership power and informal power may lead to managerial entrenchment, resulting in powerful CEOs pursuing actions that maximise their interests (Al-Shaer et al., 2023; Jiraporn & Chintrakarn, 2013). First, entrenched CEOs may perceive any additional personal gains through SDGs-related initiatives as trivial compared to benefits that could be generated from alternative investments. For instance, long-tenured CEOs tend to be more committed to established norms and thus will resist any strategic changes that alter the status quo (Lewis et al., 2014). In this regard, CEO career horizon has been shown to influence firms' sustainability-related initiatives such as CSR. Given their short career horizon, long-tenured CEOs are less motivated to commit resources to long-term sustainability-related initiatives (Oh, Chang, & Cheng, 2016). This is because such CEOs tend to believe that the benefits associated with such initiatives may not be realised during their incumbency. Along these lines, previous studies document an inverse relationship between CEO power and sustainability initiatives. For example, Lewis et al. (2014) show that firms with new CEOs are more likely to disclose voluntary environmental information as compared to firms with long-tenured CEOs. Similarly, Al-Shaer et al. (2023) reveal that newly appointed CEOs engage more in environmental initiatives than longer-tenured CEOs.

Second, managerial entrenchment tends to insulate powerful CEOs from control and disciplinary mechanisms such as boards of directors (Chu et al., 2023; Muttakin et al., 2018). Prior research suggests that powerful CEOs tend to recruit and promote like-minded executives to increase their influence within the firm. Accordingly, those CEOs are better able to resist pressures for change by opposing projects that are not aligned with the established paradigm (Lewis et al., 2014). In this regard, CEOs with greater power can reduce the board's monitoring capacity on issues related to discretionary disclosures. As Li et al. (2018) argue, powerful CEOs tend to be protected by their authority, allowing them to manipulate firms' disclosure policies. In line with this logic, previous studies suggest that CEO power negatively affects corporate sustainability disclosure (Garcia-Sanchez et al., 2021; Muttakin et al., 2018). Given that the board's monitoring role is less stringent in voluntary reporting, CEOs with greater power are more likely to influence firms' discretionary disclosures.

Based on these general patterns, we expect that firms with powerful CEOs will be less likely to integrate the SDGs and provide related disclosures. Our assertion is premised on the notion that CEOs with greater power are more inclined towards established norms and practices and thus may perceive SDGs reporting as unnecessary. This tendency becomes pronounced particularly when the business case for the SDGs remains uncertain. Leveraging their ownership and informal power, such CEOs can disregard requests for SDGs integration and reporting. Therefore, we hypothesise that:

Hypothesis 2: CEO power is negatively associated with corporate SDGs reporting.

3.3 CEO narcissism, CEO age and corporate SDGs reporting

Hambrick and Mason (1984) identified age as an important demographic characteristic that may affect corporate strategic outcomes. Following this, several researchers have examined the effect of CEO age on various strategic choices (Abatecola & Cristofaro, 2020; Chu et al., 2023; McCarthy, Oliver, & Song, 2017). The prevailing literature suggests that managerial youth affects corporate strategic outcomes. Older CEOs are more risk-averse and less likely to engage in challenging tasks in an attempt to maintain the organisational status quo and/or protect their legacy, reputation or retirement benefits (Hambrick & Mason, 1984; Serfling, 2014). On the other hand, younger CEOs have a strong desire to signal their competence and thus have a high propensity to engage in unprecedented and challenging actions. Further, some researchers maintain that older individuals may develop some personality traits such as humility and conscientiousness, which could moderate the effects of narcissistic behaviour (Ashton & Lee, 2016; Marquez-Illescas, Zebedee, & Zhou, 2019). In their study on the effect of CEO humility and CEO narcissism on firm innovation, Zhang, Ou, Tsui, and Wang (2017) evidence that these conflicting yet potentially complementary personality traits can interact to influence corporate strategic outcomes.

Several studies document an interaction effect between CEO narcissism and age. Marquez-Illescas et al. (2019) evidence that more narcissistic CEOs tend to reinforce their grandiose self-image by issuing more positive earnings announcements although this is less salient in firms led by an older CEO. In a related study, Byun and Al-Shammari (2021) show that the likelihood of product recalls is more pronounced in firms led by a young narcissistic CEO. This stream of literature maintains that the tendency of younger CEOs to engage in bolder actions is amplified for those with high narcissistic tendencies. With these notions in mind, it is reasonable to expect that the effect of CEO narcissism on corporate strategic choices will vary based on the age of the CEO. Given that older CEOs have a low propensity to take on challenging tasks, we maintain that the effect of CEO narcissism on SDGs reporting will be lower in organisations led by older CEOs as compared to their younger peers. Therefore, we propose the following hypothesis:

Hypothesis 3: CEO age moderates the relationship between CEO narcissism and corporate SDGs reporting such that the effect of CEO narcissism is lower in firms led by an older CEO.

3.4 Corporate SDGs reporting and firm performance

A major contention in the sustainability literature has been the concern about the instrumental role of sustainability performance on firms' financial performance. Accordingly, the effect of sustainability practices on firm performance has gained considerable interest among management scholars in recent years. Several researchers maintain that corporate sustainability performance may lead to improvements in firms' performance (Eliwa, Aboud, & Saleh, 2021; Okafor, Adusei, & Adeleye, 2021; Qureshi, Kirkerud, Theresa, & Ahsan, 2020; Yu, Guo, & Luu, 2018; Zhou, Liu, & Luo, 2022). For instance, Dyllick and Muff (2016) argue that addressing sustainability concerns may generate both tangible (reduced cost and risks) and intangible (brand reputation and competitiveness) benefits for firms. While the sentiments around corporate sustainability reporting have been generally positive, critics maintain that sustainability reporting is largely limited in scope, misleading, and a tool for corporate legitimacy management (Cho, Laine, Roberts, & Rodrigue, 2015; Cho, Michelon, & Patten, 2012). As Gray (2010, p. 57) argues, "sustainability is both an ecological and societal concept which will only rarely, if at all, coincide with corporate or organisational boundaries." Accordingly, concerns about organisational legitimacy or reputation tend to be the underlying motives for sustainability reporting decisions (Boiral, 2013; Hahn & Lülfs, 2014; Talbot &

Boiral, 2018). While corporate SDGs reporting research has gained significant attention in recent years, the instrumental role of SDGs reporting on firm performance has largely been overlooked.

Despite the challenges in identifying ‘win-win’ strategies for certain SDGs (Zampone et al., 2024), the 2030 Agenda will continue to have a significant impact on businesses. According to van Zanten and van Tulder (2018), the SDGs encapsulate the sustainable development aspirations of all countries and major stakeholder groups. Through substantive SDGs integration, businesses can identify new opportunities to create value and mitigate environmental and social risks. This approach involves a strategic prioritisation of material SDGs, coupled with the disclosure of high-quality information on SDGs-related actions, enabling stakeholders to appreciate firms’ contributions to the SDGs. According to the UN Global Compact and Accenture Strategy (2016), the majority of CEOs believe that the SDGs offer an opportunity to rethink their approaches to sustainable value creation. Previous studies suggest that a strong commitment to the SDGs, in the form of SDGs integration and reporting, can generate competitive advantages for firms, including revenue growth, risk mitigation, long-term relationships with key stakeholder groups, and attracting new and ethical investors (Nguyen, Elmagrhi, Ntim, & Wu, 2021; Thammaraksa, Laurent, Gebara, & Pontoppidan, 2024; UN Global Compact & Accenture Strategy, 2019). Okafor et al. (2021) further assert that firms can balance stakeholders’ economic, social, and environmental needs by incorporating sustainable development concerns into organisational processes. In this regard, the SDGs offer a useful framework within which firms can develop sustainable development actions. This suggests that SDGs reporting could serve as a strategic approach to create organisational momentum for improvement, signal improved SDGs performance, create value and benefit, and positively influence firm performance (Qian & Schaltegger, 2017; Schaltegger, Gibassier, & Maas, 2023). While few studies have examined the effect of SDGs reporting on firm performance, the results remain inconclusive. Ahmad and Buniamin (2021) show that SDGs engagement is negatively correlated with corporate financial performance among listed firms in Malaysia. Ramos, Chen, Rabeeu, Basit, and Rahim (2022) document that SDGs reporting does not improve firm performance. In contrast, García Meca and Martínez Ferrero (2021) examine the effect of SDGs reporting on firm performance using evidence from Europe. They show that SDGs reporting significantly affects the performance of firms operating in controversial and environmentally sensitive industries. These inconsistencies offer a great opportunity to contribute to the scant literature on the instrumental role of SDGs reporting. Drawing on the substantive perspective of sustainability reporting (Ashforth & Gibbs, 1990), we maintain that firms that strategically disclose SDGs-related information are more likely to gain tangible benefits in the form of improved performance. Therefore, we propose the following hypothesis:

Hypothesis 4: Corporate SDGs reporting is positively associated with firm performance.

4 Methods

We test our hypotheses on a sample consisting of CEOs of selected FTSE 100 companies in the period between 2018 and 2022. Our focus on the UK is motivated by the limited research on corporate SDGs reporting originating from this region (Awuah et al., 2023; Botchway & Bradley, 2023; Silva, 2021) as well as the region’s proficiency in the field of social and environmental accounting (Beck, Campbell, & Shrives, 2010). The FTSE 100 index tracks the largest companies by market capitalization in the UK. These are high-profile and highly visible companies providing opportunities for CEOs with high narcissistic tendencies to reinforce their inflated desires for attention and praise (Marquez-Illescas et al., 2019; Olsen et al., 2014). We imposed several data requirements to ensure that our study design is robust and consistent with prior literature(Al-Shammari, Banerjee, & Rasheed, 2022; Chatterjee & Hambrick, 2011; Gupta & Misangyi, 2018). First, we limit our sample to include only firms in which the same individual had occupied the CEO position during the same period. Also, we only include firms that had full SDGs disclosure data available for the entire period. Our final sample includes 65 firms with a total of 325 CEO-firm observations. We employed archival and publicly available data sources. Data on firms' SDGs performance and CEOs was collected from sustainability performance reports (sustainability reports, corporate social responsibility reports, economic, social and governance reports, integrated reports, and annual reports) which were downloaded from the companies' websites. We collected CEO compensation data and financial data from the Thomson Reuters Eikon database. Figure 1 shows the conceptual model.

<Insert Figure 1 Here>

4.1 Variable measurement

4.1.1 CEO narcissism

Several instruments have been proposed to measure narcissism (Chatterjee & Hambrick, 2007; Patrenko et al., 2016; Raskin & Hall, 1979). Prominent among these measures is the Narcissistic Personality Inventory (NPI) proposed by Raskin and Hall (1979). However, given the challenges in getting top executives to complete the NPI, prior management scholars have developed several unobtrusive measures to capture CEO's narcissistic tendencies (Chatterjee & Hambrick, 2007; Patrenko et al., 2016). Among these is the four-item narcissism scale developed by Chatterjee and Hambrick (2011) which captures traces of a CEO's narcissistic tendencies. Over the years, the instrument has been adopted and revised by several authors (Al-Shammari et al., 2019; Marquez-Illescas et al., 2019; Olsen et al., 2014). We draw on the unobtrusive instruments for narcissism and following Olsen et al. (2014) we measure CEO narcisssism using 3 indicators: (1) prominence of the CEO's photograph within the company's sustainability performance report measured on a 4-point scale: 4 points if the CEO's photograph is solely featured and occupies over half a page; 3 points when the photograph depicts the CEO alone but occupies less than half a page; 2 points if the CEO was photographed alongside one or more fellow directors; and 1 point if the CEO's photograph is absent. Sustainability performance reports were obtained from company websites. (2) The relative cash pay was calculated by dividing the CEO's cash compensation (salary and bonus) by that of the second highest-earning executive within the company. (3) We calculated the relative non-cash pay as a ratio of the CEO's non-cash earnings (deferred income, stock grants and stock options) to that of the second highest-earning executive. The relative pay items were averaged over two years. Following prior management literature (Al-Shammari et al., 2019; Marquez-Illescas et al., 2019; Olsen et al., 2014), we conduct a factor analysis to confirm whether the three items together capture the same construct with the results provided in Table 1. The results indicate that the three items load on a single factor (eigenvalue > 1.0) and account for 35% of the variance (36.5% reported by Chatterjee and Hambrick, 2011; 36% reported by Al-Shammari et al., 2019). Similar to prior studies, we compute the narcissism scores using the factor loadings of the items (Ingersoll, Glass, Cook, & Olsen, 2019; Marquez-Illescas et al., 2019).

<Insert Table 1 Here>

4.1.2 CEO power

According to Muttakin et al. (2018), no single variable is likely to capture the different dimensions of CEO power. As such, various measures including CEO stock ownership, CEO duality, the proportion of inside directors, and CEO tenure have been utilised in the literature to capture CEO power (Byun & Al-Shammari, 2021; Deore et al., 2023; Muttakin et al., 2018). Following Muttakin et al. (2018) we develop a CEO power index to capture the multiple dimensions of CEO power. Using a binary procedure, we develop our power index by considering CEO tenure and CEO stock ownership. We assigned a score of 1 if a CEO's ownership in the firm exceeds the median ownership and 0 if otherwise. Similarly, a score of 1 is assigned if a CEO's tenure exceeds the median tenure and 0 if otherwise. We divided the aggregate score by the optimal score (i.e. 2) to derive the CEO power scores.

4.1.3 SDGs reporting score

The literature on corporate SDGs reporting uses different measures to capture the extent of SDGs disclosure. While a strand of scholars (García Meca & Martínez Ferrero, 2021; Krasodomska, Zieniuk, & Kostrzewska, 2023; Rosati & Faria, 2019a) use a dichotomous variable (whether the SDGs are mentioned or otherwise) as evidence of reporting, others develop a disclosure index using the *SDG Compass* (Bose & Khan, 2022; Pizzi, Rosati, & Venturelli, 2021) or the *quality criteria for SDGs reporting* developed by KPMG (2018) (Lodhia, Kaur, & Kuruppu, 2023). In this study, SDGs reporting is measured using a 10-item disclosure index covering a range of topics outlined in the *SDG Compass* (GRI, UN Global Compact, & WBCSD, 2015), as well as KPMG's *quality criteria for SDGs reporting* (KPMG, 2018). We adopt a composite SDGs reporting score (SRS) as the main dependent variable, comprising five dimensions: managerial orientation, priority SDGs and sub-targets, corporate SDGs-related initiatives, time orientation, and future plans. These dimensions collectively measure both the thematic content (scope) and quality of SDGs-related disclosures (Beattie, McInnes, & Fearnley, 2004; Ntim, 2016). Prior literature underscores two measurement approaches: the weighted approach and the binary/unweighted approach, with both approaches having inherent limitations. Our disclosure index consists of both binary/unweighted and weighted measures to account for the constraints of both techniques. For the unweighted items, a value of "1" is assigned if information is present and "0" if otherwise. Concerning the weighted items, several measurement methods have been proposed in the literature ranging from three-scale scores (no, qualitative, and quantitative) (Beattie, Dhanani, & Jones, 2008; Hooks & van Staden, 2011) to six-scale scores (no, qualitative, quantitative, monetary, explanation, and comparison of information) (Beck et al., 2010; Ntim, 2016). In this study, we adopt a three-scale score for some items and a four-scale score for one item as presented in Table 2. Consequently, the optimal disclosure score is 16, and a company's SRS is computed as the aggregate score divided by the optimal disclosure score. To ensure the validity and reliability of our disclosure index, we undertook several rounds of coding using multiple coders. Two independent authors coded a sample of 10 sustainability performance reports. The few discrepancies that emerged from the first phase were discussed and agreed on between the coders. No inconsistencies emerged in the subsequent coding, which implied that our disclosure index is valid and a reliable measure of SDGs disclosure.

<Insert Table 2 Here>

4.1.4 Firm performance

We examine firm performance using return on assets (ROA) calculated as the ratio of earnings before interests and taxes to total assets. ROA is a common measure of a firm's operational performance and has been widely used in prior studies examining the effect of sustainability disclosures on firm performance (García Meca & Martínez Ferrero, 2021; Patrenko et al., 2016; Sandberg, Alnoor, & Tiberius, 2023; Yu et al., 2018).

4.1.5 Moderating effect of CEO age

We collected CEO age data from the annual reports for each period in the dataset. The ages of the CEOs ranged between 42 and 66 years old with an average age of 55 years old. Consistent with prior studies (Byun & Al-Shammari, 2021; Chu et al., 2023), we standardise our measure for CEO age by creating a dummy variable (1 if the CEO's age is above the average age and 0 otherwise). According to Byun and Al-Shammari (2021), this measurement approach facilitates an easier interpretation of the moderating effect.

4.1.6 Control variables

Consistent with previous studies we include a set of control variables (firm-level and CEO-related) to address potential problems of omitted variable bias (Nguyen, Elmagrhi, Ntim, & Wu, 2021). Our control variables include the following: firm size, leverage, risk, board size, sustainability committee, board gender diversity, firm slack, capital intensity and CEO gender. Firm size is measured as the natural logarithm of total assets (Nguyen et al., 2021; Ntim, 2016). We measure leverage as the ratio of long-term debt to total equity (García Meca & Martínez Ferrero, 2021; Martínez-Ferrero & García-Meca, 2020). Firm risk is the firm's beta (Yang, Riepe, Moser, Pull, & Terjesen, 2019) and board size is measured as the aggregate number of directors on the firm's board (Muttakin et al., 2018). The sustainability committee is operationalised as a dummy variable where a value of 1 is assigned if the company has a sustainability committee and 0 if otherwise. We measure board gender diversity as a proportion of women on the board divided by the total board members. Consistent with previous literature, we calculated firm slack as the ratio of current assets to current liabilities (Patrenko et al., 2016) and capital intensity as a ratio of capital expenses divided by total sales (Tang et al., 2018). CEO gender is a dummy variable and was coded 1 if a CEO was male and 0 if otherwise. Lastly, we control for year and industry-fixed effects to address the possibility that certain industry and general economic conditions may affect firms' engagement with the SDGs. We include an industry dummy (two-digit SIC code) and year dummies in all models. Detailed variable definitions are provided in Table 3.

4.2 Model and estimation technique

Given that our data has both cross-sectional and longitudinal variables, it is problematic to use OLS regression. One of our independent variables (CEO narcissism) is time-invariant and thus a fixed-effects model is not suitable to examine the impact of this variable. Hence, the use of generalised estimating equations (GEE) has been recommended to address the possibility of non-autonomous observations (Ballinger, 2004; Liang & Zeger, 1986). Consistent with previous literature (Al-Shammari et al., 2019; Tang et al., 2018) we employ this estimation technique to test our hypotheses. A GEE model is an extension of the generalised linear models (GLMs) which seeks to derive maximum likelihood estimates while controlling for non-autonomous observations (Patrenko et al., 2016). Following the recommendations of Ballinger

(2004), we specified a Gaussian (normal) distribution with an identity-link function and an exchangeable correlation for all our models. Also, we chose robust variance estimators to ensure all our models are robust. To test our research hypotheses, we propose the following empirical models.

Equation (1) presents an empirical model to test the effect of CEO narcissism, power and a set of control variables on SDGs reporting scores, thus testing both our first and second hypotheses.

$$\begin{aligned} SRS_{i,t} = {} & \beta_0 + \beta_1 CEO\_narcissism_i + \beta_2 CEO\_power_{i,t} + \beta_3 Age_{i,t} + \beta_4 CEO\_gender_{i,t} \\ & + \beta_5 Leverage_{i,t} + \beta_6 Risk_{i,t} + \beta_7 BOD\_size_{i,t} + \beta_8 BOD\_div_{i,t} \\ & + \beta_9 SUS\_com_{i,t} + \beta_{10} Slack_{i,t} + \beta_{11} CAPEX_{i,t} + \beta_{12} Fsize_{i,t} + \beta_{13} Industry_i \\ & + \beta_{14} Year_t + \varepsilon_{i,t} \end{aligned} \tag{1}$$

Additionally, we estimate Equation (2) to test hypothesis 3 by including an additional interaction term in our main model in Equation (1):

$$\begin{aligned} SRS_{i,t} = {} & \beta_0 + \beta_1 CEO\_narcissism_i + \beta_2 CEO\_power_{i,t} + \beta_3 Age_{i,t} \\ & + \beta_4 CEO\_narcissism_i * Age_{i,t} + \beta_5 CEO\_gender_{i,t} + \beta_6 Leverage_{i,t} \\ & + \beta_7 Risk_{i,t} + \beta_8 BOD\_size_{i,t} + \beta_9 BOD\_div_{i,t} + \beta_{10} SUS\_com_{i,t} \\ & + \beta_{11} Slack_{i,t} + \beta_{12} CAPEX_{i,t} + \beta_{13} Fsize_{i,t} + \beta_{14} Industry_i + \beta_{15} Year_t \\ & + \varepsilon_{i,t} \end{aligned} \tag{2}$$

To further test hypothesis 4, we specify Equation (3) which tests the relationship between firm performance and the SDGs reporting score with a set of control variables:

$$\begin{aligned} ROA_{i,t} = {} & \beta_0 + \beta_1 SRS_{i,t} + \beta_2 CEO\_gender_{i,t} + \beta_3 Leverage_{i,t} + \beta_4 Risk_{i,t} + \beta_5 BOD\_size_{i,t} \\ & + \beta_6 BOD\_div_{i,t} + \beta_7 SUS\_com_{i,t} + \beta_8 Slack_{i,t} + \beta_9 CAPEX_{i,t} + \beta_{10} Fsize_{i,t} \\ & + \beta_{11} ROA\_lag_{i,t} + \beta_{12} Industry_i + \beta_{13} Year_t + \varepsilon_{i,t} \end{aligned} \tag{3}$$

<Insert Table 3 Here>

5 Results

5.1 Descriptive statistics

The descriptive statistics and correlations are provided in Table 4. We checked for the presence of multicollinearity by estimating the variance inflation factors (VIF). The VIF for all the variables was less than 10 suggesting that there was no presence of multicollinearity.

<Insert Table 4 Here>

5.2 Main results

We present the results for our hypotheses in Table 5. The first model in Table 5 is our base model and includes all the control variables. In model 2, we include our main predictor variables and examine the effect of CEO narcissism and CEO power on the level of SDGs reporting. Hypothesis 1 posits that there is a positive relationship between CEO narcissism and SDGs reporting. We document a positive and significant coefficient of the CEO narcissism variable (β = 0.049, *p* = .025). Concerning Hypothesis 2, the results in model 2 show that CEO power is significant and negatively influences SDGs reporting (β = -0.171, *p* = .001). Thus, the results strongly support both Hypothesis 1 and Hypothesis 2. In model 3, we investigate whether CEO age moderates the relationship between CEO narcissism and SDGs reporting. Our main variable is the interaction of CEO age and CEO narcissism (CEO age * CEO narcissism). The results show that our interaction variable is significant and negatively associated with SDGs reporting (β = -0.074, *p* = .020). Thus the results support our assertion that younger CEOs with narcissistic tendencies are more inclined to report on the SDGs performance compared to older CEOs with similar narcissistic traits. Hypothesis 4 posits that there is a positive relationship between SDGs reporting and firm performance. We present the results for Hypothesis 4 in model 4. The results show that SDGs reporting is positive but not significantly related to firm performance (β = 0.012, *p* = .499), thus Hypothesis 4 is not supported.

<Insert Table 5 Here>

5.3 Robustness and supplementary analysis

To prove the robustness of our findings, we performed two further analyses using alternative measures for CEO narcissism, CEO power and SDGs disclosure. We adopted dummy variables for CEO narcissism and SDGs reporting score by standardising them through a mean split and assigned a code of 1 if the scores exceed the mean score and 0 if otherwise. For CEO power, we used the CEO pay slice which measures the CEO's relative compensation among the top-five executive team (Bebchuk, Cremers, & Peyer, 2011; Jiraporn & Chintrakarn, 2013). Also, we replaced our firm performance variable with an alternative measure (Tobin's Q) which has been used extensively in previous studies. The results are provided in Table 6 (Models 5,6, and 7) and are largely consistent with the initial findings. The results support Hypothesis 1 and Hypothesis 2 concerning the relationship between CEO narcissism, CEO power and SDGs reporting. Concerning Hypothesis 3, the results indicate a negative relationship between the interaction variable and SDGs reporting however this relationship is not significant. Also, consistent with our original findings the results show a positive but not significant relationship between SDGs reporting and firm performance.

<Insert Table 6 Here>

Consistent with prior CEO narcissism literature (Chatterjee & Hambrick, 2007; Dabbebi et al., 2022; Patrenko et al., 2016), we controlled for endogeneity using a predicted CEO narcissism score to address potential endogeneity problems arising from omitted variable bias. First, we regressed CEO narcissism against our control variables. We included an industry dummy (two-digit SIC code) to account for the possibility of narcissistic CEOs being drawn to particular industries. Based on this model, we generated a predicted narcissistic score and included it in our original models as a control for endogeneity. We re-estimated models 8 and 9 and the results are presented in Table 7. Overall, the results of the models with endogeneity control are consistent with our original findings, providing support for Hypothesis 1, Hypothesis 2, and Hypothesis 3. Thus our findings did not change significantly if we included the endogeneity control.

<Insert Table 7 Here>

6 Discussion and implications

6.1 Summary of findings

Drawing on insights from both upper echelons and agency perspectives, we argue that both CEO attributes are influential on corporate SDGs-related initiatives and disclosure practices. Our results are highly supportive. Both CEO narcissism and power are significant drivers of SDGs reporting. First, our results show that CEO narcissism positively influences SDGs reporting. This is consistent with the findings of Garrido-Ruso et al. (2023), suggesting that firms led by narcissistic CEOs tend to disclose more information about SDGs-related initiatives. This resonates with existing literature on narcissism, which suggests that narcissistic individuals harbour inflated views of themselves and are inclined to take actions that reinforce these positive self-views (Chatterjee & Hambrick, 2007; Gerstner et al., 2013; Patrenko et al., 2016). Despite the SDGs being intergovernmental commitments on sustainable development, the significant stakeholder interest and high visibility of the SDGs present opportunities for narcissistic CEOs to generate a narcissistic supply. Given that narcissistic CEOs prefer actions that attract attention and gravitate towards bold and highly visible initiatives (Chatterjee & Hambrick, 2007), SDGs reporting serves as a tool for narcissistic CEOs to garner external acknowledgement and admiration. However, the findings reveal that CEO narcissism lacks a uniform effect on corporate SDGs reporting. Consistent with previous studies (Byun & Al-Shammari, 2021; Marquez-Illescas et al., 2019), the influence of CEO narcissism weakens as the CEO gets older. Our findings indeed support the argument that older CEOs tend to be more risk-averse and, consequently, less inclined to undertake challenging tasks, possibly to protect their legacy, reputation, and/or retirement benefits. This finding corroborates previous research suggesting that certain personality traits, such as humility and conscientiousness, can mitigate the inflated self-view associated with narcissism, traits which are likely to develop with age (Marquez-Illescas et al., 2019).

Second, congruent with the predictions of the agency perspective (Jensen & Meckling, 1976), we find that CEO power has a negative impact on corporate reporting on the SDGs. Our findings are consistent with previous studies (Garcia-Sanchez et al., 2021; Harper & Sun, 2019; Sheikh, 2019), suggesting that CEO power undermines the independent monitoring and advisory role of the board, leading to increased agency conflicts and adverse outcomes. Considering the ongoing debate surrounding the business case for the SDGs (Bebbington & Unerman, 2018; Scheyvens et al., 2016), powerful CEOs may perceive any incremental personal benefits from SDGs-related investments as trivial compared to the potential gains from alternative investments. Accordingly, powerful CEOs may restrict the board's potential to invest in SDGs-related initiatives and make associated disclosures.

Finally, despite our expectation that SDGs reporting would have a significant impact, our results suggest that such reporting does not enhance firm performance. Our findings provide additional support to the conclusions of García Meca and Martínez Ferrero (2021) regarding the lack of effect on firm performance. This raises pertinent questions about the approach of the private sector to the SDGs and whether businesses are merely using the SDGs to mask 'business as usual' through SDGs-related rhetoric (Bebbington & Unerman, 2018). Consistent with the symbolic perspective of sustainability management (Avrampou et al., 2019; Michelon, Pilonato, & Ricceri, 2015; van der Waal & Thijssens, 2020), our findings suggest that corporate SDGs-related initiatives may be driven by concerns for image reinforcement. This in part, may be attributed to the self-interest motives of narcissistic CEOs who consider the SDGs as an opportunity to generate external narcissistic supply. In line with this logic, narcissistic CEOs may allocate resources to SDGs-related initiatives, even when the business case remains uncertain, primarily to satisfy their narcissistic craving for publicity and praise (Al-Shammari et al., 2019; Patrenko et al., 2016). This aligns with the agency view that the opportunistic and self-serving behaviour of managers influences strategic decision-making such that they act in ways that maximise their benefits at the expense of shareholders (Chatterjee & Hambrick, 2007; Jensen & Meckling, 1976).

6.2 Research implications

The study offers several theoretical contributions to the literature. First, we address the existing calls for theoretical innovation in the SDGs reporting literature (e.g., Awuah et al., 2023; Bebbington & Unerman, 2018). Considering the dominance of legitimacy, institutional and stakeholder theories, we extend the literature on drivers of SDGs reporting by exploring the intrinsic motives underlying corporate engagement. The prevailing SDGs reporting research has predominantly relied on examining the effect of external and institutional factors on SDGs reporting (Bose & Khan, 2022; Pizzi et al., 2021; Rosati & Faria, 2019a, 2019b). We go a step further to shed light on how the attributes of key decision-makers may play a role in the decision to integrate the SDGs. Grounded in the upper echelons and agency perspectives, we highlight that the CEO represents an important actor that motivates firms to provide SDGs-related disclosures. With narcissistic CEOs exhibiting a persistent demand for external narcissistic supply, our findings indicate that they are more inclined to use the SDGs as a means to reinforce their personal needs for acclaim and image enhancement. In contrast, CEO power is a significant inhibitor to corporate SDGs reporting. In this vein, we offer novel insights into the intrinsic antecedents of SDGs reporting, enriching our understanding of the strategic dynamics shaping corporate engagement with the SDGs.

Second, the upper echelons research thus far has largely focused on the effect of top management's demographic attributes on firm strategic outcomes (Abatecola & Cristofaro, 2020; Cragun et al., 2020). We augment the literature by considering how other attributes of top management, such as narcissism and power, may influence firm strategic choices and how these attributes interact with other demographic characteristics to shape such choices. In addressing this gap, our study responds to calls in the literature to investigate how narcissism interacts with other demographic characteristics of top executives (Cragun et al., 2020). Third, we contribute to the discourse on the instrumental role of corporate sustainability practices, particularly SDGs engagement on firm performance. Our findings are consistent with the symbolic perspective on sustainability reporting, suggesting that corporate engagement with the SDGs currently lacks the value-enhancing actions to influence firm performance. Accordingly, the prevailing form of corporate SDGs engagement appears to be motivated by factors other than the genuine pursuit of opportunities to enhance firm performance. Supporting this theoretical perspective, our study contributes to this stream of literature (e.g., Avrampou et al., 2019; García Meca & Martínez Ferrero, 2021; Silva, 2021), suggesting that corporate SDGs reporting is purposefully for legitimacy or impression management purposes.

6.3 Practical implications

This study offers valuable implications relevant to managers and various stakeholders. From a managerial perspective, the study reveals a deficiency in the current approach to SDGs integration, indicating a lack of value-enhancing attributes that could generate tangible economic benefits for reporting firms (Dyllick & Muff, 2016). Thus, firms should reconsider their strategies for SDGs integration by prioritising material SDGs to identify opportunities for a "win-win" paradigm (Zampone et al., 2024). This requires an integrated approach, where managers assess their entire value chain to understand the impact of their operations on the SDGs and identify opportunities for value creation. Additionally, firms should consider actions that limit managerial entrenchment to better align the SDGs with the interests of powerful CEOs. While managerial ownership can align the interests of managers and shareholders, it may also lead to greater ownership power, potentially diminishing the effectiveness of the board (Finkelstein, 1992). In this vein, organisations should improve corporate governance mechanisms to mitigate the effects of CEO power and promote investments in sustainability and SDGs-related initiatives. For instance, board directors should strengthen their monitoring capacity and exert greater control over corporate decision-making, particularly in cases where CEOs have significant shareholding or have occupied their positions for an extended period.

In light of these results, there is a compelling need for policymakers and regulators to consider a uniform reporting framework to harmonise SDGs disclosure practices. As Thammaraksa et al. (2024) emphasise, an essential requirement for a substantive approach to SDG reporting is the establishment of a standardised framework to assess firms' integration and contributions to the SDGs. Despite initiatives such as the *SDG Compass* by the GRI, World Business Council for Sustainable Development, and the UN Global Compact, variations persist in how companies communicate their SDGs-related actions. These discrepancies and lax reporting guidelines create incentives for managerial capture, leading to the use of reporting for self-serving purposes. Although sustainability reporting is increasingly becoming mandatory in most jurisdictions, challenges persist regarding how these standards align with the SDGs and how businesses should integrate and disclose their SDGs-related performance. This underscores the need for a comprehensive and systematic process to identify the linkages between the SDGs and existing reporting standards or frameworks. In this context, a standardised reporting framework is expected to enhance reporting quality and promote substantive contributions to sustainable development.

From a market standpoint, our findings suggest that investors should exercise great caution when analysing disclosures on firms' SDGs performance. The findings emphasise that such disclosures may be self-serving, particularly the narcissistic inclinations of CEOs, rather than genuine commitments to meaningfully contribute to sustainable development. Therefore, stakeholders should carefully consider managerial attributes along with organisational and institutional factors when evaluating corporate disclosures. Finally, our study is also interesting for practitioners, offering valuable evidence to advance understanding of the drivers and barriers to SDGs reporting.

7 Conclusions

Research into the drivers of corporate SDGs reporting has gained considerable interest in recent years. However, existing literature has predominantly focused on external and institutional-level factors that drive SDGs reporting. While this stream of research has provided valuable insights, the exclusive emphasis on external drivers offers an incomplete understanding of why businesses report on the SDGs (Al-Shammari et al., 2019; Garrido-Ruso et al., 2023). In this study, we extend this body of research by considering how the characteristics of CEOs – specifically narcissism and power – affect corporate SDGs reporting. Using a sample of 325

CEO-year observations, our findings strongly support our hypotheses, including evidence that CEO narcissism and CEO power significantly affect firms' disclosures on the SDGs. Further, our findings confirm the symbolic role of SDGs reporting (Ashforth & Gibbs, 1990), suggesting that SDGs reporting does not play an instrumental role in improving firm performance.

While this study offers novel insights regarding the intrinsic antecedents of corporate SDGs reporting, it is important to bear in mind the limitations of the study, which in turn represent avenues for further research. First, although we started with the entire constituents of the FTSE 100 index, our final sample was limited to only 65 companies due to data unavailability. Thus, future research may extend our study to consider larger samples, such as FTSE 350, or expand to cover other jurisdictions, thereby improving the generalisability of the findings. Second, given the challenges associated with the use of questionnaires to assess CEOs' personality traits, we followed prior research on CEO narcissism and adopted an unobtrusive approach to measure CEO narcissism. Future studies could consider alternative unobtrusive approaches capable of capturing both grandiose and vulnerable narcissism to operationalise CEO narcissism. Additionally, future studies could focus on exploring the effect of other personality traits, such as CEO hubris, overconfidence, charisma, and humility on SDGs reporting.

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Table 1: CEO narcissism measure

Panel A: Correlation matrix	Mean	S.D.	1	2	3
1. CEO prominence in annual reports	2.98	0.65	1		
2. CEO relative cash pay	1.97	0.61	0.270**	1	
3. CEO relative non-cash pay	2.72	1.63	0.220*	0.306**	1
Panel B: Factor loadings					
1. CEO prominence in annual reports			0.676		
2. CEO relative cash pay			0.753		
3. CEO relative non-cash pay			0.712		
% of variance extracted			35%		
Eigenvalue			1.53		

***, **, * denote statistical significance at 1%, 5% and 10% levels for two-tailed tests respectively.

Table 2: SDGs disclosure index

Dimension	**SDGs disclosure: Information on or reference to**	**Range of scores**
Managerial orientation	Whether the SDGs are referenced in the chairman or CEO's statement.	0-1
Priority SDGs and sub-targets	Whether the company discloses how it maps the SDGs against its value chain to identify impact areas.	0-1
	Whether the company discloses the prioritisation process and stakeholder engagement.	0-1
	Whether the company discloses which SDGs are material to the company, and which their activities contribute towards.	0-2
	Whether the company provide disclosures on specific SDGs targets about material SDGs.	0-2
	Whether the company discloses its strategy including measurable objectives to contribute to each priority SDGs target.	0-1
Corporate SDGs-related initiatives	Whether the company presents specific actions or activities concerning material SDGs.	0-2
	Whether the specific actions are expressed in qualitative or quantitative and in monetary terms.	0-3

Time orientation	Whether the SDGs-related disclosures are historical or forward-looking.	0-2
Future plans	Whether the company provides disclosures on plans and actions for achieving further progress.	0-1

Table 3: Variables description and measurement

Variable	Acronym	Description	Reference
CEO narcissism	CEO_narcissism	A summary measure of CEO prominence in annual reports, relative cash pay, and relative non-cash pay based on factor loadings	Chatterjee and Hambrick (2007); Olsen et al. (2014)
CEO power	CEO_power	A standardised index of CEO tenure and stock ownership	Byun and Al-Shammari, (2021); Muttakin et al. (2018)
SDGs reporting score	SRS	An aggregate of five SDGs dimensions (total score / optimal score)	GRI, UNGC and WBCSD (2015); KPMG (2018)
CEO age	Age	CEO age at each year, mean centred	Byun and Al-Shammari (2021)
CEO gender	CEO_gender	An indicator variable of 1 for male CEOs, and 0 for otherwise	Olsen et al. (2014)
Return on Assets	ROA	Return-on-Assets (net income/total assets)	Olsen et al. (2014)
Return on Assets lagged	ROA_lag	Return-on-Assets in the prior year	Olsen et al. (2014); Patrenko et al. (2016)
Leverage	Leverage	The ratio of long-term debt to total equity	García Meca and Martínez Ferrero (2021)
Risk	Risk	The firm's beta	Yang et al. (2019)
Board size	BOD_size	Aggregate number of directors on the board	Muttakin et al. (2018)
Board gender diversity	BOD_div	Number of female directors / total number of directors on the board	Nguyen et al. (2021); Pizzi et al. (2021)
Sustainability Committee	SUS_com	An indicator variable of 1 if a sustainability committee is present, and 0 for otherwise	Pizzi et al. (2021); Zampone et al. (2024)
Unabsorbed slack	Slack	The ratio of current assets to current liabilities	Patrenko et al. (2016); Tang et al. (2018)

Capital intensity	CAPEX	The ratio of capital expenditure to total sales	Tang et al. (2018)
Firm size	Fsize	The natural log of total assets	García Meca and Martínez Ferrero (2021); Nguyen et al. (2021)

Table 4: Descriptive Statistics

Variable	Mean	S.D.	1	2	3	4	5	6	7
1. CEO_gender	0.92	0.27	1						
2. CEO_narcissism	-0.02	1.12	0.05	1					
3. Age	54.86	4.96	-0.16***	-0.19***	1				
4. CEO_power	0.48	0.40	-0.10*	-0.13**	-0.04	1			
5. SRS	0.38	0.29	0.07	0.23***	-0.01	-0.33***	1		
6. Leverage	0.84	0.99	-0.36***	-0.00	0.13**	0.08	0.01	1	
7. ROA	0.07	0.07	0.18***	0.11*	0.16***	-0.17***	0.11**	-0.07	1
8. ROA_lag	0.08	0.08	0.14**	0.06	0.17***	-0.07	-0.00	-0.02	0.52***
9. Risk	1.07	0.44	0.02	-0.11*	0.01	-0.03	0.08	-0.21***	-0.11**
10. BOD_size	10.61	0.17	0.01	0.01	-0.08	0.14**	0.09*	-0.05	-0.14**
11. SUS_com	0.96	0.20	-0.06	0.09*	-0.15***	-0.19***	0.23***	0.08	-0.25***
12. BOD_div	0.35	0.09	-0.10*	0.05	-0.08	0.08	0.24***	0.17***	0.17***
13. Slack	1.60	1.16	0.05	0.01	-0.07	-0.01	0.01	-0.23***	0.08

14. CAPEX	0.08	0.14	-0.14**	0.07	-0.05	0.06	0.02	0.27***	-0.11*
15. Fsize	23.29	8.32	-0.01	-0.08	0.06	0.03	0.11**	-0.10*	0.05

Variable	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
8. ROA_lag	1							
9. Risk	-0.06	1						
10. BOD_size	-0.25***	-0.05	1					
11. SUS_com	-0.21***	0.04	0.16**	1				
12. BOD_div	0.14**	0.02	0.03	-0.04	1			
13. Slack	0.16***	0.09	-0.07	-0.00	0.08	1		
14. CAPEX	-0.11**	-0.17***	0.07	0.06	-0.03	0.02	1	
15. Fsize	-0.08	-0.02	0.08	0.02	-0.02	0.04	0.02	1

***, **, * denote statistical significance at 1%, 5% and 10% levels for two-tailed tests respectively.

Table 5: Results of GEE analyses

Models	**1**	**2**	**3**	**4**
Variables	**DV: SRS**	**DV: SRS**	**DV: SRS**	**DV: ROA**
Independent variables				
CEO_narcissism		0.049** (0.025)	0.081***	
			(0.004)	
CEO_power		-0.171***	-0.166***	
		(0.001)	(0.002)	
Age			0.256	
			(0.525)	
SRS				0.012
				(0.499)
Interaction				
CEO_narcissism * Age			-0.074**	
			(0.020)	
Controls				
CEO_gender	0.127**	0.091*	0.094**	0.026**
	(0.018)	(0.066)	(0.027)	(0.036)
Leverage	0.016	0.016	0.015	-0.004
	(0.523)	(0.459)	(0.501)	(0.576)
Risk	0.078*	0.085**	0.090**	-0.024*** (0.005)
	(0.056)	(0.027)	(0.015)	
BOD_size	0.089	0.115	0.107	-0.016
	(0.455)	(0.293)	(0.305)	(0.437)
SUS_com	0.167*** (0.003)	0.131**	0.143**	-0.047
		(0.019)	(0.014)	(0.102)
BOD_div	0.126	0.160	0.151	0.102**
	(0.531)	(0.403)	(0.430)	(0.041)
Slack	-0.011	-0.013	-0.014	0.001 (0.787)
	(0.436)	(0.326)	(0.279)	
CAPEX	0.210***	0.203***	0.206***	-0.029
	(0.000)	(0.000)	(0.000)	(0.110)

Fsize	0.002 (0.802)	0.003 (0.645)	0.002 (0.777)	0.003 (0.435)
ROA_lag				0.270*** (0.000)
Constant	-0.442 (0.203)	-0.387 (0.217)	-0.367 (0.216)	0.045 (0.638)
Year	Included	Included	Included	Included
Industry	Included	Included	Included	Included
Observations	325	325	325	325
Number of CEO/Firms	65	65	65	65
Wald Chi2	164.81*** (0.000)	277.03*** (0.000)	248.07*** (0.000)	203.49*** (0.000)

P-values are reported in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% levels for two-tailed tests respectively.

Table 6: Robustness check

Models	**5**	**6**	**7**
Variables	**DV: SRS**	**DV: SRS**	**DV: Tobin's Q**
Independent variables			
CEO_narcissism	0.123** (0.029)	0.165** (0.021)	
CEO_power	-0.101** (0.047)	-0.096* (0.058)	
Age		0.112* (0.096)	
SRS			0.027 (0.702)
Interaction			
CEO_narcissism * Age		-0.091 (0.392)	

Controls			
CEO_gender	0.183**	0.173**	0.450***
	(0.010)	(0.017)	(0.001)
Leverage	0.011	0.010	-0.042
	(0.692)	(0.722)	(0.472)
Risk	0.088	0.089*	-0.208**
	(0.102)	(0.094)	(0.011)
BOD_size	0.169	0.150	-0.024
	(0.236)	(0.295)	(0.534)
SUS_com	0.232**	0.239**	0.090
	(0.047)	(0.043)	(0.738)
BOD_div	0.394	0.407*	0.482
	(0.111)	(0.098)	(0.310)
Slack	-0.031	-0.032	0.074
	(0.178)	(0.168)	(0.317)
CAPEX	0.293***	0.276***	-0.091
	(0.000)	(0.000)	(0.525)
Fsize	0.007	0.006	0.018*
	(0.474)	(0.492)	(0.051)
Q_lag			0.229**
			(0.017)
Constant	-0.756*	-0.723*	0.536
	(0.059)	(0.067)	(0.373)
Year	Included	Included	Included
Industry	Included	Included	Included
Observations	325	325	325
Number of CEO/Firms	65	65	65
Wald Chi2	279.96***	271.70***	169.35***
	(0.000)	(0.000)	(0.000)

P-values are reported in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% levels for two-tailed tests respectively.

Table 7: Robustness check with the inclusion of endogeneity control

Models	**8**	**9**
Variables	**DV: SRS**	**DV: SRS**
Independent variables		
CEO_narcissism	0.048** (0.029)	0.80***
		(0.005)
CEO_power	-0.170***	-0.166***
	(0.000)	(0.000)
Age		0.023
		(0.574)
Interaction		
CEO_narcissism * Age		-0.073**
		(0.022)
Controls		
CEO_gender	0.061	0.074
	(0.299)	(0.147)
Leverage	0.024	0.020
	(0.301)	(0.402)
Risk	0.121**	0.115**
	(0.024)	(0.023)
BOD_size	0.104	0.101
	(0.335)	(0.335)
SUS_com	0.043	0.084
	(0.723)	(0.486)
BOD_div	0.045	0.071
	(0.859)	(0.768)
Slack	-0.011	-0.013
	(0.380)	(0.313)
CAPEX	0.128*	0.144*

	(0.068)	(0.082)
Fsize	0.008	0.005
	(0.353)	(0.515)
Endogeneity control	0.131	0.089
	(0.320)	(0.475)
Constant	-0.360	-0.348
	(0.262)	(0.248)
Year	Included	Included
Industry	Included	Included
Observations	325	325
Number of CEO/Firms	65	65
Wald Chi2	276.30***	252.39***
	(0.000)	(0.000)

P-values are reported in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% levels for two-tailed tests respectively.

9 Figure legend

Figure 1: Conceptual framework