Corporate Reporting on the Sustainable Development Goals: The Case of the United Kingdom

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Copyright Statement

Abstract

The primary aim of the study is to explore corporate reporting practices on the Sustainable Development Goals (SDGs), drawing upon evidence from listed companies in the United Kingdom (UK). This overarching aim is delineated into three distinct sub-objectives, with each objective examined within three original research essays on corporate SDGs reporting. In the first article, the study reviews and critiques the prevailing literature on corporate SDGs reporting to map how the field has developed and identify a future research agenda. Based on a structured review of 65 empirical articles, the results reveal that current SDGs reporting literature is under-theorised, overly focuses on publicly listed companies and succinctly describes organisations' engagement as superficial. Surprisingly, regions such as North America, the UK and other emerging economies have received less attention from scholars. Although there is an increasing number of accounting scholars developing research within this field, the prevailing research is concentrated on corporate SDGs engagement, drivers of SDGs reporting and scope of SDGs reporting. This calls for interventionist research a modification to the current approaches and research methods to advance this field further.

The second article analyses how Financial Times Stock Exchange (FTSE) 100 companies disclose their contributions to the SDGs and examines whether these disclosures reflect the outcome of genuine accountability to stakeholders, or merely represent impression management. Drawing on the theoretical perspectives of legitimacy and impression management, the study relies on prior narrative disclosure research to develop a typology of impression management strategies and a disclosure framework to capture the thematic content (what and volume of disclosure) and disclosure quality (how it is disclosed). The study provides evidence that corporations are increasingly referencing the SDGs in corporate sustainability performance reports. Nevertheless, the disclosures are largely limited with the majority of companies primarily aligning their existing sustainability activities with several SDGs, suggesting a symbolic approach to the SDGs. Regarding impression management, the evidence reveals the extensive bias of SDG-related disclosures towards positive and optimistic language as well as self-serving assertive attributional strategies. The paper offers novel insights into this emerging reporting practice and results will be valuable to researchers and other stakeholders.

Grounded in both agency and upper echelons perspectives, the third 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.

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Declaration

This thesis is submitted in fulfilment of the requirements for the degree of Doctor of Philosophy (Accounting) at Bournemouth University, United Kingdom. I declare that this thesis represents my original work, except for quotations and citations which have been duly acknowledged. I also declare that this thesis has not been previously or concurrently summited, either in whole or in part, for any other qualification at Bournemouth University or other institutions. Chapters 4 and 6 have already been published in two peer-reviewed journals (*Journal of Accounting and Organizational Change and Business Strategy and the Environment respectively*). Chapter 5 is currently undergoing second round of review in the Accounting, Auditing and Accountability Journal. For all three papers, I am the lead author, contributing over 80% of the substantive content.

Benjamin Awuah
July 2024

Dedication

-This thesis is dedicated to my wonderful parents-

Chapter 1

Introduction

1.1 Background and motivation

The notion of sustainable development has garnered considerable attention since its inception in the seminal Brundtland Report (United Nations World Commission on Environment and Development (UNWCED), 1987). Subsequently, global commitment to sustainable development was reinforced in September 2015 with the adoption of the United Nation's (UN) *2030 Agenda for Sustainable Development* (UN, 2015). This multifaceted agenda introduced a broad set of 17 Sustainable Development Goals (SDGs) (see Table 1) and 169 targets aimed at stimulating "action over the next 15 years in areas of critical importance for humanity and the planet" (UN, 2015, p. 3). Caprani (2016, p. 102) further argue that the SDGs represent "the next era of human development that is transformational" considering their potential to become a blueprint for national governments, corporations and civil society in creating a shared and lasting prosperity (Hajer et al. 2015). With the aim to '*leave no one behind',* the SDGs represent a bold attempt to address pressing global challenges in order to promote a quality environment, social cohesion, and economic welfare (Avrampou et al. 2019). However, despite nearly a decade since their inception, recent studies and surveys cast a rather bleak picture of the SDGs' progress. Heightened levels of inequality, food insecurity, climate change, ongoing conflicts, as well as the lingering effects of the COVID-19 pandemic collectively threaten the SDGs agenda (UN 2022, 2023).

Originally developed for and adopted by national governments, the SDGs have rapidly transcended their political arenas and garnered widespread support from diverse stakeholder groups (Bebbington and Unerman 2018, 2020). Prominent among these stakeholder endorsements is that of the private sector which has embraced these global goals. Recognising the critical role of private corporations in achieving the SDGs, several measures were adopted prior to their launch to engender stakeholder support including the involvement of the private sector during the development stage (Sachs, 2012). In fact, several scholars describe the SDGs development process as 'hyper-participatory' (Scheyvens et al. 2016) and "one of the biggest consultation exercises the world has ever seen (Caprani 2016, p. 102) given the extent of the consultative process. Accordingly, achieving the SDGs requires all parties including governments, businesses, and civil society to pursue a more sustainable path forward. Corporations, in particular, have been called upon to bring to bear their strengths including innovation, efficiency, resources, and managerial talent to advance the SDGs Agenda (Scheyvens et al. 2016; Weerasinghe et al. 2023). Given the substantial financial investments required to advance the goals, businesses are constantly encouraged to adopt the SDGs by integrating the goals into their operations. More so, target 12.6 of the SDGs requires Member States of the UN to urge companies to adopt and integrate sustainability practices and information in their corporate reporting cycle. As noted by Scheyvens et al. (2016), this raises broader questions about whether corporations can really make meaningful contributions to advancing the SDGs or whether we likely to see ‘business as usual’.

In recent years, the SDGs have gained salience within the business community, with several companies incorporating the SDGs into their sustainability reports. Among the limited academic and practitioner evidence on corporate engagement with the SDGs, KPMG (2022) evidence that the majority of Global 250 firms are increasingly reporting their contributions to the SDGs. Similarly, Curtó-Pagès et al. (2021) document a steady increase in SDGs reporting among Spanish firms between 2016 and 2019. According to Rosati and Faria (2019, p. 1313), SDGs reporting is “the practice of reporting publicly on how an organisation addresses the SDGs”. SDGs reporting is critical in demonstrating stakeholder accountability and aligning capital market signals with sustainable development. Also, reporting can facilitate the mobilisation of responsible investment required for implementing SDG-related initiatives (Pizzi et al. 2022; Weerasinghe et al. 2023). Consequently, Zampone et al. (2022) emphasize that SDGs reporting has become imperative for corporations in an attempt to establish/maintain their legitimacy and meet the emerging expectations of diverse stakeholder groups.

Notwithstanding the traction in corporate SDGs reporting, there are increasing concerns regarding the risk that businesses could be using the SDGs to “camouflage business-as-usual by disguising it using SDG-related rhetoric” (Bebbington and Unerman 2018, p. 10). As Scheyvens et al. (2016) point out, “…the often rosy ‘triple win’ rhetoric around the SDGs presents a fundamentally unrealistic picture and one that ignores the clear tensions that are likely to arise between goals of different interest groups." The challenges in harmonising the corporate objective of maximising shareholder value with the ambitions of sustainable development may result in businesses adopting a boilerplate and generic approach to disclosing SDG-related performance. Nevertheless, the accounting academic community has been slow to engage in SDGs-motivated research, resulting in a limited understanding of how businesses are contributing to the SDGs and the associated SDG-related challenges (Bebbington and Unerman 2020). Against this backdrop, this research contributes to the literature by exploring corporate reporting practices on the SDGs and provides policy recommendations.

1.2 Thesis structure

The thesis is structured in a manner consistent with the requirements outlined in the Code of Practice for Research Degrees at Bournemouth University. The Code allows the incorporation of "one or more papers or paper style chapters" suitable for submission and publication in peer-reviewed academic journals into an integrated thesis format. In this regard, the researcher adopts an integrated thesis structure, consisting of three original essays in Chapters 4, 5, and 6. The chapters are self-contained, each addressing distinct and original research questions, separate literature reviews, and employing unique datasets and analysis techniques. The tables and figures within each chapter are independent and sequentially numbered. Furthermore, titles, subtitles, and page numbers have been organised sequentially throughout the entirety of the thesis. Chapter 2 discusses the SDGs by providing a historical perspective of key UN initiatives that cascaded into the development of the SDGs. In chapter 3, the researcher's ontological and epistemological positioning including an overview of the research methods employed in each of the three essays are presented. Chapters 4, 5, and 6 present the three essays on corporate reporting on the SDGs, while chapter 7 concludes the study with a discussion of the implications for policy and practice, and offers areas for further research. I briefly elucidate the links between the essays in chapters 4 to 6 below.

Table 1. A summary of the UN Sustainable Development Goals

Goal	Description
1	*No poverty* End poverty in all its forms everywhere.
2	*Zero hunger* End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3	*Good health and well-being* Ensure healthy lives and promote well-being for all at all ages
4	*Quality education* Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5	*Gender equality* Achieve gender equality and empower all women and girls
6	*Clean water and sanitation* Ensure availability and sustainable management of water and sanitation for all
7	*Affordable and clean energy* Ensure access to affordable, reliable, sustainable and modern energy for all
8	*Decent work and economic growth* Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9	*Industry, innovation and infrastructure* Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
10	*Reduced Inequalities* Reduce income inequality within and among countries
11	*Sustainable cities and communities* Make cities and human settlements inclusive, safe, resilient and sustainable
12	*Responsible consumption and production* Ensure sustainable consumption and production patterns
13	*Climate action* Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy
14	*Life below water* Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15	*Life on land* Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16	*Peace, justice and strong institutions*

	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, inclusive institutions at all levels
17	*Partnership for the goals* Strengthen the means of implementation and revitalise the global partnership for sustainable development

Source: Quoted from UN (2024)

Chapter 4 reviews and critiques the corporate SDGs reporting literature to develop insights into how the literature has developed and identify a future research agenda. This is imperative given the increasing number of studies exploring corporate SDGs reporting. However, the literature appears fragmented as various authors approach the field with different theoretical framings culminating in inconclusive findings. In this regard, the study explores the broad scope of corporate SDGs reporting literature published across various journals, authors, organisations, themes, methods and theories, using a structured literature review methodology (Massaro et al., 2016). The findings indicate that corporate SDGs reporting literature is a field of growing importance, underscoring the value of the SDGs in the private sector. Also, the review identified five research themes for the prevailing SDGs reporting research with studies focussing on SDGs engagement, drivers of SDGs reporting, scope of corporate SDGs reporting, business strategy, and performance measurement. Consequently, five broad areas were identified and discussed on how future research could advance this field further. These include research focussing on the motivations for and challenges of SDGs reporting, the need for theoretical innovation in SDGs reporting research, SDGs performance measurement, SDGs reporting – performance nexus, and longitudinal research. These offered a foundation for the ensuing studies in chapters 5 and 6.

In chapter 5, the researcher explores how FTSE 100 companies disclose their contributions to the SDGs and examines whether these disclosures reflect the outcome of genuine accountability to stakeholders, or merely represent impression management. While corporate SDG-related disclosures have increased in recent years, there has been a considerable degree of scepticism regarding the content, complexity, and quality of this information. Although SDGs-motivated accounting research has gained traction in recent years, almost all of these studies, however, focus either on the influence of firm-specific and/or country-level institutional factors on corporate SDGs reporting (Rosati and Faria 2019a; García-Sánchez, Rodríguez-Ariza, et al. 2020; Pizzi et al. 2021; Subramaniam et al. 2023) or the effect of SDGs reporting on firm performance (García Meca and Martínez Ferrero 2021; Ramos et al. 2022). Surprisingly, few scholars have devoted attention to the information content and quality of SDG-related disclosures (e.g., Lodhia *et al.*, 2023; Silva, 2021). While the SDGs offer a useful framework for firms' sustainable development efforts, they could also be used to mask corporate actions through SDG-related rhetoric. Along these lines, Bebbington and Unerman (2018, p. 10) call for further research to help understand where firms' "SDG-related accounting initiatives lie on the continuum between pure rhetoric and meaningful action". We address this call by examining the thematic content and quality of SDG-related disclosures, and the extent to which such disclosures facilitate impression management. Drawing on the theoretical perspectives of legitimacy and impression management, we rely on previous narrative disclosure research to develop a typology of impression management strategies and a disclosure framework to capture the thematic content (what and volume of disclosure), the type of measure used to quantify and qualify SDG-related initiatives (how it is disclosed) and managerial orientation (the corporate approach to the SDGs). Following Jones (2011), we argue that a substantive approach to SDGs reporting entails the disclosure of SDG-related information in an unbiased manner, in accordance with the requirements of the *SDG Compass* and KPMG's *quality criteria for SDGs reporting* (KPMG 2018). Such disclosures are expected to informative, providing quantifiable information to assist users appreciate both positive and negative impacts on the SDGs, and the underlying corporate approach to the SDGs. Conversely, if a symbolic approach is adopted, we would expect SDG-related disclosures to presented in a self-serving manner.

The study provides evidence that corporations are increasingly referencing the SDGs in corporate sustainability performance reports. Nevertheless, for companies reporting their contributions to the SDGs, the disclosures are largely limited with the majority of companies primarily aligning their existing sustainability activities with several SDGs, suggesting a symbolic approach to the SDGs. Regarding impression management, the evidence reveals the extensive bias of SDG-related disclosures towards positive and optimistic language as well as self-serving assertive attributional strategies. The empirical results in chapter 5 shed new light on how companies manage impressions with SDG-related disclosures and offer novel insights into the emerging reporting practice which will be valuable to researchers and other stakeholders.

Chapter 6 documents useful empirical evidence about the intrinsic motivations or antecedents of corporate SDGs reporting and the instrumental role of SDGs engagement. In this chapter, the researcher investigates the influence of CEO narcissism and power on corporate SDGs reporting, the moderating effect of CEO age on CEO narcissism – SDGs reporting nexus, and the effect of SDGs reporting on firm performance. Although the literature on SDGs reporting has examined the drivers of SDGs reporting, the literature has predominantly focused on organisational and external factors (Rosati and Faria 2019a; García-Sánchez, Rodríguez-Ariza, et al. 2020; Bose and Khan 2022; Pizzi et al. 2022). Thus, questions regarding the intrinsic antecedents, particularly, the effects of CEO personality attributes remain open. Accordingly, empirical studies on the instrumental role and value relevance of SDGs reporting on firm performance have been lacking(García Meca and Martínez Ferrero 2021; Awuah et al. 2024). In this chapter, the researcher draws on the upper echelons theory (Hambrick and Mason 1984; Hambrick 2007; Abatecola and Cristofaro 2020) to investigate these issues. Based on a sample of 65 Financial Times Stock Exchange (FTSE) 100 CEOs/firms between the period of 2018 and 2022, the findings provide considerable support for the hypotheses, demonstrating the significant role of CEO narcissism and power on SDGs reporting. The empirical findings demonstrate the effects of CEO attributes on corporate disclosure practices and provide valuable insights regarding the instrumental role of SDGs reporting. These findings contribute to the literature on SDGs accounting and enrich our understanding of the underlying dynamics shaping corporate disclosure practices.

1.3 Contributions of the research

The research offers significant implications for academia, policy, and practice. The SDGs represent an exciting opportunity for businesses to make clear their commitments to sustainable development, as well as the mechanisms to move beyond a sustainability-rhetoric towards achieving transformational global development (Caprani 2016; Scheyvens et al. 2016; Bebbington and Unerman 2018). The study provides novel contributions to the growing scholarly literature on corporate SDGs reporting as well as valuable insights into the current state of the reporting practice. The specific contributions of the research are discussed briefly below.

1.3.1 Contributions to knowledge

First, the study contributes to the SDGs reporting literature by introducing a multi-dimensional disclosure framework to measure SDGs performance. Research on corporate SDGs reporting documents an increasing lack of completeness and concerns about the quality of SDG-related disclosures (Avrampou et al. 2019; García Meca and Martínez Ferrero 2021; Silva 2021). Although research on corporate SDGs reporting has increased over the period, most scholars have investigated the field using measures that do not accurately capture the quality of reporting. As Chauvey et al. (2015) point out, though the amount *('how much')* and the topics *('what')* of disclosure are potentially relevant for managers and report users, the fail to take into account other important dimensions that characterise the information disclosed. Beretta and Bozzolan (2004, p. 266) further argue that disclosure quality "depends on both the quantity of information disclosed and, on the richness, offered by additional information". This information diversity signals an organisation's awareness of its impacts on a wider scale (Beck et al. 2010), and thus, an instrument that captures a "high level of resolution of meaning" is imperative (Michelon et al. 2015, p. 65). In this regard, the proposed disclosure framework overcomes the limitations associated with traditional measurement approaches such as word counts or binary variables as a measure of corporate SDGs reporting.

Second, the study contributes to the critical perspective on SDGs reporting by presenting new evidence that, consistent with existing sustainability practices, SDGs reporting is prone to managerial capture (Michelon et al. 2015). In particular, the study extends the literature by focussing on an underdeveloped research area – the thematic content and quality of SDG-related disclosures, and the extent to which SDGs reporting facilitates impression management. In doing so, it addresses the call in the literature for research on where corporate "specific SDG-related accounting initiatives lie on the continuum between pure rhetoric and meaningful action" (Bebbington and Unerman 2018, p. 10). Specifically, the study extends the impression management literature by examining two less-researched impression management strategies: thematic manipulation and structural manipulation (emphasis by reinforcing disclosures) (Brennan et al. 2009). We contribute new insights on impression management in narrative disclosures and provide empirical support for Brennan *et al.'s* (2009) methodological approach. Although impression management research in sustainability reporting has garnered considerable attention in recent years, a majority of the studies focus on attributional and neutralisation strategies (e.g., Boiral, 2016; Hooghiemstra, 2000; Sandberg and Holmlund, 2015; Talbot and Boiral, 2018). The study complements this stream of research by examining self-serving bias manifested through linguistic and attributional strategies aimed at managing stakeholder perceptions of corporate contributions to the 2030 Agenda.

Third, the study extends the upper echelons 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 firm strategic choices. In particular, the study responds to calls in the literature to investigate how narcissism interacts with other top management demographic characteristics (Cragun et al., 2020). The current study reveals that CEO age has implications for CEO narcissism and SDGs reporting nexus such that the effect of CEO narcissism on SDGs reporting is weaker for firms with older CEOs. In contrast, firms with powerful CEOs are less likely to integrate the SDGs into their business operations and reporting. With narcissistic CEOs exhibiting a persistent demand for external narcissistic supply, the 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 this vein, the study offers novel insights into the intrinsic antecedents of SDGs reporting, contributing valuable perspectives to the understanding of the strategic dynamics shaping corporate engagement with the SDGs.

Finally, the study calls for increased SDGs-motivated accounting research, given the significant opportunities for the academic accounting community to advance knowledge in this field. While there is a growing number of accounting scholars developing research within this field, the prevailing empirical literature is concentrated on the drivers of SDGs reporting, with limited research examining the managerial implications of SDGs reporting. Furthermore, the scientific discourse remains largely under-theorised with positivist framings primarily focussed on the *"what"* questions.

The apparent disconnect between accounting scholars exploring this field and the actual practice requires that a modification to the current approaches and research methods is necessary to advance this field and contribute substantively to the challenge. Consequently, the study contributes to the literature by proposing a research agenda to advance the field further.

1.3.2 Contributions to policy and practice

The findings of this study provide valuable insights to practitioners, policymakers and various stakeholders. First, the current study contributes to the policy discourse on the SDGs and the needed actions to ensure that collectively, we achieve the SDGs Agenda by 2030. As the UN Secretary-General António Guterres points out, *"unless we act now, the 2030 Agenda could become an epitaph for a world that might have been"* (UN, 2023, p. 2). As governments strive to act on the SDGs, the focus has now shifted to the private sector and the role of corporations in achieving these goals. Considering the overwhelming evidence that corporate engagement is symbolic, the question that still lingers is whether the time has come to use the 'stick' (coercive or regulatory actions) in an attempt to encourage substantive actions.

Despite initiatives such as the *SDG Compass* and KPMG's *quality criteria for SDGs reporting*, variations persist in how companies communicate their SDG-related actions. In this sense there is a compelling need for policymakers and regulators to consider a uniform reporting framework to harmonise SDGs disclosure practices, thereby enhancing the relevance of SDGs reporting and fostering substantive contributions to sustainable development. As Scheyvens et al. (2016, p. 380) argue, achieving the SDGs may require a move towards corporate social obligation where corporations are obliged to make substantive changes towards sustainable development given that most businesses do not respond to the soft language of business responsibility where SDGs integration and reporting is seen as a supplementary activity. This is particularly important given that the SDGs are less corporate-focused, enabling the private sector to adopt a symbolic approach to the SDGs agenda. In this regard, the current study contributes to the ongoing policy discourse on mandating SDGs reporting in line with *Target 12.6*, by arguing that achieving the SDGs requires a more corporate social obligation, rather than a voluntary supplementary activity. This necessitates regulatory intervention to influence businesses in adopting a substantive approach which may result in transformational changes necessary to advance the goals. In this regard, there is a compelling need for policymakers and regulators to consider a uniform reporting framework to harmonise SDGs disclosure practices, thereby enhancing the relevance of SDGs reporting and fostering substantive contributions to sustainable development.

Second, the results indicate the need to develop more robust governance mechanisms to ensure that businesses adopt a substantive approach towards the SDGs Agenda. The results highlight the role of CEO narcissism and power in corporate SDGs reporting and how narcissistic CEOs may use SDGs reporting for their self-interest motives. Also, the presence of a sustainability committee and a more gender-diverse board positively influences SDGs reporting. These results have important implications for policy in understanding current practices and corporate responses to the SDGs. On one hand, powerful CEOs, driven by their self-interest may be less motivated to invest firms' resources in initiatives that advance the SDGs. In contrast, CEOs with high narcissistic tendencies may use the SDGs to generate narcissistic supply culminating in a symbolic approach to the SDGs. This is pronounced in firms with young and highly narcissistic CEOs. Policy implications could arise in relation to the appropriate governance mechanisms to restrain the downsides of excessive CEO narcissism and power. For instance, policymakers or regulators may use sustainability committees to curb the downsides of CEO narcissism, and direct firms' efforts towards substantive engagement. Accordingly, a more diverse and balanced board may restrain powerful CEOs from becoming deeply entrenched such that they no longer favour SDG-related investments. Thus, understanding the effects of CEO attributes on firms' SDG-related initiatives is crucial in directing future policy and regulatory efforts aimed at advancing corporate actions towards achieving the SDGs.

Third, from a market standpoint, investors should exercise great caution when analysing disclosures concerning corporate contributions to sustainable development. The findings underscore that such disclosures may be motivated by self-interests, particularly the narcissistic inclinations of CEOs, rather than genuine commitments to the SDGs and stakeholder interests. Moreover, from a managerial perspective, the study reveals a deficiency in the current approach to integrating the SDGs, lacking value-enhancing attributes that could generate tangible economic benefits for reporting firms (Dyllick and Muff 2016). Consequently, managers should reconsider their strategies for SDGs integration, emphasising material SDGs, identifying opportunities for a "win-win" paradigm (Zampone et al., 2024), and avoiding boilerplate reporting, where firms align their sustainability actions with all the SDGs. This necessitates an integrated approach, where managers assess their entire value chain to discern the impact of their operations on the SDGs and identify opportunities for value creation.

Lastly, the study offers new opportunities for practitioners to enhance the value relevance of corporate SDGs reporting. To achieve this, an active partnership between the accounting academic community and practitioners, as emphasized by the SDGs framework, is essential.

1.4 Organisation of the remaining parts of the thesis

The thesis comprises seven chapters which are organised as follows. The current chapter presents a preliminary overview of the research. The chapter documents the background and motivation for the study and proceeds to detail the structure of the thesis. Further, it summarises the academic, practitioner, and policy implications of the study and concludes with the organisation of the remaining aspects of the thesis. Chapter 2 highlights key UN initiatives in the area of sustainable development that culminated in the development of the SDGs, and the role of the private sector in advancing the achievement of the SDGs. Chapter 3 outlines the research methodology and methods employed in this study. The chapter commences with a discussion of the philosophical assumptions that underpin this study and proceeds to situate the current study within the pragmatist paradigm. In addition, the chapter highlights the methodological choices employed in the study and ends with a brief summary of the methods employed in each of the three independent studies in chapters 4 to 6.

Chapter 4 explores the SDGs reporting literature to develop insights into how the field has developed, offer a critique, and identify a future research agenda. In chapter 5, the researcher investigates how corporations disclose their contributions to the SDGs and examines whether these disclosures reflect the outcome of genuine accountability to stakeholders, or merely represent impression management. Chapter 6 investigates the effects of CEO attributes, specifically narcissism and power, on corporate SDGs reporting, and the effect of SDGs reporting on firm performance. In chapters 4 through 6, the use of first-person pronouns ("I" or "my") has been substituted with third-person pronouns ("we" or "our"), as these chapters represent co-authored papers with my supervisors, which have either been published or currently under review in a peer-reviewed journal. Chapter 7 concludes with a summary of the whole thesis. It highlights the main research contributions and implications of the study. In addition, the limitations of the study which need to be considered in interpreting the results of the study are discussed in this chapter. Lastly, the chapter concludes with suggestions for advancing future corporate SDGs reporting research.

Chapter 2

The United Nations' Sustainable Development Goals

2.1 Introduction

This chapter aims to introduce the SDGs and provide a context within which the research is developed. In doing so, the chapter commences with a historical background of key UN initiatives in the area of sustainable development. The chapter proceeds with a discussion on the SDGs and why they matter in the global sustainable development agenda, particularly, on the role of corporations in achieving the goals. Along these lines, the chapter demonstrates how the SDGs have gained traction and salience among various stakeholder groups beyond the UN member states who collectively recognised them. Having demonstrated why the SDGs are relevant for businesses and national governments, this chapter also reviews the progress made since the launch of the goals and shifts the focus to the accounting academic community and its role in the initiation and development of high-quality research in this area. This chapter concludes by discussing the developments in the area of corporate reporting to assist corporations in integrating disclosures on the SDGs in various corporate sustainability performance reports.

2.2 Historical developments on Sustainable Development

The UN has actively led the international development agenda on sustainable development through its technical agencies, programs of action, and funds since its inception (Kumar et al. 2016). Established in 1945 after the end of the Second World War, the UN commands a unique span of influence and provides a platform for member states to deliberate on issues and challenges bedevilling the world at any point in time. From its original membership of 51 member countries in 1945, the UN has evolved over the years to 193 member states. The UN is the world's largest multilateral organisation "where all the world's nations can gather together, discuss common problems, and find shared solutions that benefit all of humanity" (www.un.org/en/about-us, accessed March 24, 2024). In this sense, the UN is well positioned and clothed with legitimate authority in formulating policies and initiatives aimed at addressing social inequalities and promoting environmentally sustainable forms of development (Bebbington and Unerman 2018). Over the years, the UN has spearheaded several initiatives including conferences on the environment and development such as the Stockholm Declaration of 1972, Earth Summit 1992 in Rio, 2002 World Summit on Sustainable Development in Johannesburg, and Rio+20 in 2012. A major underlying theme originating from these initiatives is the concept of sustainable development and the need to address the environmental, social and economic challenges that threaten our shared future.

Sustainable development has gained considerable attention in the debate on the relationships between human activity and the environment, leading to parallel but distinct discourses around the concept (Bebbington 2001; Laine 2005; Redclift 2005). Laine (2005) underscores the seeming lack of consensus on the definition of sustainable development or the actions needed to achieve this. While the concept of sustainable development could be traced to older roots (Bebbington 2001; Laine 2005; Bebbington and Larrinaga 2014), the publication of the Brundtland Report *Our Common Future* in 1987, "marked a watershed in thinking on environment, development, and governance (Sneddon et al. 2006, p. 253). The Brundtland Commission formally known as the UN World Commission on Environment and Development was an independent commission established by the UN and led by the former Norwegian Prime Minister Gro Harlem Brundtland. The commission was mandated to among other things, propose long-term environmental strategies for achieving sustainable development (UNWCED, 1987). The publication of the Brundtland Report ushered the concept of sustainable development into the policy discourse and considered crucial elements of development from an economic, social and political perspective (Sneddon et al. 2006). While some argue that the notion of sustainability and sustainable development much existed before the Brundtland Commission's report, the report amplified to a wider audience the notion of sustainable development than prior works of the UN had achieved (Bebbington 2001). One of the key outcomes of the Commission's report is the definition of sustainable development and the roadmap for achieving sustainable development. In the report, sustainable development is defined as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (UNWCED, 1987, p. 8).

Although this definition appears to be familiar to many, critics have characterised this definition as too narrow and "obscures underlying complexities and contradictions"

(Redclift 2005, p. 213). As a consequence, several different definitions for the concept have been burgeoned. For instance, Redclift (1987, p. 199) argues that sustainable development “means more than seeking a compromise between the natural environment and the pursuit of economic growth. It means a definition of development which recognises that the limits of sustainability have structural as well as natural origins”. As Laine (2005) emphasises, this elusiveness has allowed the concept to dominate global discussions on the environment and society, as it can be defined to suit various purposes. Following the publication of the report, the concept gained widespread recognition within the international policy arena and laid the foundations for the Earth Summit, held in Rio de Janeiro in 1992. The Earth Summit has been described as one of the important milestones in the sustainable development discourse as it brought together heads of states, diplomats, scientists, and non-governmental organisations (NGOs) from 179 countries to focus on the effects of human socioeconomic activities on the environment. The conference recognised sustainable development as an attainable goal for all persons globally, and underscored the importance of integrating and balancing economic, social, and environmental concerns to sustain human life on the planet. One of the major outcomes of the Earth Summit was Agenda 21, a bold program of action that advocates for new strategies to invest in the future and achieve sustainable development in the 21st century. Other notable achievements included the Rio Declaration with its 27 universal principles, the UN Framework Convention on Climate Change, the Convention on Biological Diversity, the Declaration of Principles on Forest Management, and the establishment of the Commission on Sustainable Development (www.un.org/en/conferences/environment/rio1992, accessed March 24 2024).

While the Rio Conference achieved significant milestones in advancing sustainable development, there has been considerable disquiet about the concept itself and whether the summit had any meaningful chance of addressing the real problems of the environment and development. Hildyard (1995, p. 22/23) minced no words in asserting that:

> *“in brief the Summit went according to plan. The net outcome was to minimise change of the status quo, an outcome that was inevitable from the outset of the*

UNCED[1] *process three years ago. Unwilling to question the desirability of economic growth, the market economy or development process itself, UNCED never had a chance of addressing the real problems of 'environment and development'. Its Secretariat provided delegates with materials for a convention on biodiversity but not on free trade; on forests but not on agribusiness; on climate but not on automobiles. Agenda 21 – the Summit's 'action plan' – featured clauses on 'enabling the poor to achieve sustainable livelihoods' but none on enabling the rich to do so; a section on women but not men. By such deliberate evasion of the central issues which economic expansion poses for human societies, UNCED condemned itself to irrelevance even before the first preparatory meeting got under way. […] In that respect, the best that can be said for the Earth Summit is that it made visible the vested interests that stand in the way of moral economies that local people are seeking to re-establish in the face of day to day degradation of their rivers, lakes, streams, fishing grounds, rangelands, forests and fields."*

While acknowledging that the absence of clear policy commitments was concerning, Grubb et al. (1993, p. 25) underscored that with adequate follow-up processes, the Earth Summit could potentially "spawn a steady accretion of effective and meaningful commitments" to sustainable development. Bebbington (2001, p. 136) further argues that " another limitation of Rio, which emerges with the benefit of some eight years of observing its impact is that it has had little impact in terms of improving either the state of the environment or the living conditions of the majority of the world's population." Along these lines several UN initiatives have followed, demonstrating that sustainable development requires a new approach and new ways of reflecting and shaping practices (Bebbington and Larrinaga 2014). In 2002, the World Summit on Sustainable Development was held in Johannesburg, culminating in the adoption of a Political Declaration and Implementation Plan encompassing a set of measures and activities that are crucial to achieving development that takes the environment into account. Furthermore, the 2012 UN Conference on Sustainable Development (Rio+20) held in Rio de Janeiro, renewed international attention and commitment to sustainable

[1] United Nations Conference on Environment and Development

development. Prominent among the key outcomes of the Conference was the resolution for the development of the Sustainable Development Goals.

2.3 The Sustainable Development Goals

The decision to develop the Sustainable Development Goals has been argued as the most tangible outcome of the 2012 Rio+20 Conference on sustainable development (Hajer et al. 2015). The objective was to develop a set of universal goals that address the prevailing environmental, political, and economic challenges facing our planet, and were to succeed the Millennium Development Goals (MDGs) set to expire in 2015. The MDGs were a set of goals originally developed in response to the myriad of challenges facing the world as they appeared in 2000. The late 1990s witnessed a deepening global mistrust towards international economic institutions, with many people challenging the tenets of globalisation, perceiving it as an attempt to foist on the disempowered poor the will of wealthy corporations (McArthur 2014). The MDGs were originally developed by the Organisation for Economic Cooperation and Development (OECD) in 1996 as part of their strategy paper for the 21st Century (Bebbington and Unerman 2018). In the face of declining aid budgets, the OECD development assistance committee set out to summarise the series of agreements into a set of 'International Development Goals' (IDGs) to provide a common reference point for donor cooperation. However, the IDGs lacked the buy-in of developing or emerging economies and "offered no clear support to empower the implied ambitions" (McArthur 2014, p. 7). In this regard, the IDGs were taken over by the UN as MDGs and after a series of iterated distillations with many actors over several years, the MDGs were agreed upon by the heads of states at the UN Millenium Summit in 2000 and represent the world's first explicit development partnership framework between advanced and emerging economies (McArthur 2014; Bebbington and Unerman 2018).

According to Sachs (2012), the launch of the MDGs represents a historic and effective method of global efforts to attain a set of important social priorities ranging from halving extreme poverty to providing universal primary education and halting the spread of HIV/AIDS. In particular, the MDGs consisted of eight broad goals that sought to: eradicate extreme poverty and hunger, achieve universal primary education, promote gender equality and empower women, reduce child mortality, improve maternal health, combat HIV/AIDS, malaria and other diseases, ensure environmental sustainability, and develop a global partnership for development (www.un.org/millenniumgoals/, accessed June 14 2024). The MDGs have been described as “the global report card for the fight against poverty for the 15 years from 2000 to 2015” (Sachs 2012, p. 2206), and have dominated several policy debates and national policy planning.

In the lead-up to the Rio+20 Summit in 2012, discussions on the need for a new set of global goals to succeed the MDGs gained momentum. For instance, the UN Secretary-General's high-level global sustainability panel recommended in their report that the world adopt a set of Sustainable Development Goals. Consequently, the decision was made at the summit to develop SDGs to balance the three elements of sustainable development: providing economic transformation and opportunity to lift people out of poverty, promote social justice and protect the environment. As Hák et al. (2016) point out, the mandate to develop the proposal for the SDGs was included in the Rio+20 Conference Outcome Document, *"The Future We Want*", which incorporated the request for the establishment of an Open Working Group (OWG) tasked with developing the set of SDGs. In September 2015, all 193 member states of the UN convened at a special summit on sustainable development in New York to adopt the UN’s “Transforming our World: the *2030 Agenda for Sustainable Development”,* consisting of 17 SDGs, 169 targets, and 303 indicators (UN, 2015). The SDGs signal a paradigm shift for people and the planet, serving as a “guidepost for a difficult transition to sustainable development” (Le Blanc 2015, p. 176) over the next 15 years from 2015 to 2030. Unlike the ‘closed door’ approach that characterised the development of the MDGs, the formulation of the SDGs brought together various political leaders, the private sector, and relevant civil society actors. Formulation of the SDGs involved extensive consultation with relevant stakeholders, with some scholars describing the process as “the biggest consultation exercises the world has ever seen” (Caprani 2016, p. 102) and ‘hyper participatory’ (Scheyvens et al. 2016). Furthermore, one of the criticisms of the MDGs is their narrow focus on human development outcomes of developing countries such as poverty eradication and universal primary education. According to Sachs (2012), the MDGs were targets mainly developed for impoverished countries, with rich countries expected to contribute their solidarity and support through financial aid and technology transfer. In contrast, the SDGs take a more holistic approach to embrace the ‘triple bottom line’ approach to sustainable development, with a universal agenda that captures economic development, social inclusion, and environmental sustainability, relevant to both advanced and emerging economies. In this regard, the SDGs gained ground quickly with several scholars arguing that the goals "have the potential to become the guiding vision for governmental, corporate and civil society action for a shared and lasting prosperity (Hajer et al. 2015, p. 1657), as well as representing "the next era of human development that is transformational" (Caprani 2016, p. 102).

Despite the convergence of various stakeholders and relevant policy-making institutions around the SDGs, the goals have not been free from criticism. For instance, in a review of the SDGs and targets from a scientific perspective by the International Council for Science (ICSU) and International Social Science Council (ISSC), they show that out of the 169 SDGs sub-targets, 49 (29%) are well developed, 91 (54%) could be strengthened by being more specific, and 29 (17%) require significant work (ISSC and ICSU 2015). Furthermore, the review highlighted inconsistencies and poor alignment of the SDGs and targets with existing agreements and political processes, lack of focus to enable effective implementation, as well as the qualitative nature of a number of SDGs sub-targets (Hák et al. 2016). Also, the SDGs have been criticised for being too numerous and too complex (Caprani 2016), with concerns around the governance and implementation of the goals as well as the ideological commitments inherent in the SDGs (Bebbington and Unerman 2018). Nonetheless, what is suggested in their formulation is that we are in new times where inaction is not an option. As Sachs (2012, p. 2207) stresses, "a shared focus on economic, environmental, and social goals is a hallmark of sustainable development and represents a broad consensus on which the world can build." Along these lines, the 2030 Agenda is an important framework that could finally move the world to a sustainable trajectory (Sachs 2012; Le Blanc 2015; Scheyvens et al. 2016; Bebbington and Unerman 2018).

2.3.1 The private sector and the Sustainable Development Goals – an enabling role for accounting research

As with all other conferences, agendas, and publications of the UN, the SDGs have also had significant impacts on national governments and other global institutions (Bebbington and Unerman 2018). Accordingly, the private sector has also been dragged into the discourse on acting on the SDGs, given that global-level processes cascade through organisational-level actions and impacts. The outcome document of the RIO+20 highlights the important role of the private sector and state that "we recognise that the active participation of the private sector can contribute to the achievement of sustainable development, including through the important tool of public-private partnerships….We call upon the private sector to engage in responsible business practices, such as those promoted by the UN Global Compact" (United Nations 2012, p. 13). As Scheyvens et al. (2016) argue, the close involvement of the private sector in the SDGs development process reflects a deliberate shift over the past decade, with the private sector becoming increasingly intertwined with policy and planning.

Even though the SDGs are intergovernmental commitments and agreements, the role of the private sector has expanded, positioning it as a significant development actor with a substantial stake in the achievement of the SDGs. The 2030 Agenda acknowledges that achieving the SDGs requires collaborative efforts involving governments, public and private sector entities, civil society organisations, and individual citizens. With the private sector already engaged during the development phase, many companies had ample time before the launch of the SDGs to assess how these goals could influence their sustainability policies and practices, and how they could best contribute to their achievement (Bebbington and Unerman 2018). Thus, it is unsurprising that the SDGs have become increasingly important within the corporate sector, as evidenced by the majority of companies affirming their commitment to the 2030 Agenda (PwC 2019; KPMG 2022).

According to a survey of CEOs shortly after the launch of the SDGs, Accenture and UN Global Compact (2016) show that 89% of CEOs see the SDGs as an opportunity to rethink approaches to sustainable value creation, with 70% viewing them as a powerful tool for developing corporate actions towards sustainable development. As Schramade (2017) argues, the SDGs present some huge business opportunities[2] and serve as a call to action for businesses. Similarly, heightened expectations from investors, regulators, employees, and customers have placed significant pressure on

[2] $12 trillion based on the Business & Sustainable Development Commission's Report 'Better business, better world' (www.sustainabledevelopment.un.org/content/documents/2399BetterBusinessBetterWorld.pdf (Accessed June 15 2024))

companies to establish and attain ambitious corporate goals addressing intricate sustainability challenges, sustain profits, and foster long-term growth (UN Global Compact 2024). To address these expectations, it is imperative that corporations communicate to their stakeholders how their activities contribute to achieving the SDGs. Schramade (2017) highlights that the SDGs can serve as a crucial tool in corporate communications with their investors and other stakeholders by offering a framework and common language for demonstrating impact. However, due to the expansive scope of the SDGs and the lack of business metrics tied to the SDGs and standardised reporting, concerns about corporate 'SDGs washing' have grown. Along these lines, the accounting academic community has an important role to play in the achievement of the SDGs.

Social and environmental accounting research has significantly expanded to promote sustainable development since the report of the Brundtland Commission in 1987 (Gray 1992, 2010; Schaltegger and Burritt 2010; Bebbington and Larrinaga 2014; Bebbington et al. 2017; Bebbington and Unerman 2018). Similarly, sustainable development-inspired accounting research has continued to grow since the launch of the SDGs. For instance, Bebbington and Unerman (2018, 2020) outline an agenda for SDGs-motivated accounting research and highlight the role of the accounting academic community in advancing these goals. Despite the prominence of the SDGs in the corporate sector, accounting scholars have been slow to engage in SDGs-motivated research, suggesting that accounting research is not evolving in a manner that fully addresses the SDG-related challenges faced by organisations (Bebbington and Unerman 2020; Awuah et al. 2024). Accordingly, Bebbington and Unerman (2018, p. 12) emphasise that "the SDG framing provides an opportunity and need to revisit, redefine and refine the topics and issues studied by social, environmental and economic sustainability accounting researchers – as well as providing opportunities to re-examine the conceptual underpinnings of these fields."

Recognising the role of accounting research in the achievement of the SDGs, Pizzi et al. (2020) underscore the limited literature exploring corporate reporting on the SDGs and advocate for more research in this area. Potential topics include SDGs reporting, SDGs-inspired business models, and the impact of SDGs-integration on firm performance. Accordingly, the academic accounting community has not been fully engaged in discussing how business efforts for the SDGs can be coordinated or how accounting technologies such as metrics or indicators can be used to guide corporate SDG-related activities and outcomes. One of the foremost issues that has limited SDGs-motivated accounting research has been the availability of the underlying data for any meaningful analysis. In this sense, several scholars call for interdisciplinary research to extend SDGs-motivated accounting research beyond the traditional boundaries, as well as draw on the power of new technologies such as big data and artificial intelligence to develop this research agenda (Bebbington and Unerman 2018; Pizzi et al. 2020; Schaltegger et al. 2023). Furthermore, the SDGs are almost a decade old and corporate reporting in this regard has developed significantly, with many companies reporting their contributions to the 2030 Agenda.

Despite the prominence of the SDGs in the corporate and public policy arenas, recent UN reports paint a bleak picture regarding their achievement within the proposed timeframe. For example, in the 2023 special report on the SDGs, the UN Secretary-General António Guterres stated, "progress on more than 50 per cent of targets of the SDGs is weak and insufficient; on 30 per cent, it has stalled or gone into reverse. These include key targets on poverty, hunger and climate. Unless we act now, the 2030 Agenda could become an epitaph for a world that might have been" (UN, 2023, p. 2). Ongoing global conflicts and the COVID-19 pandemic have significantly hindered progress on the SDGs. Additionally, financing for the SDGs has fallen short of commitments, with developing countries bearing the brunt of the failure to invest in SDG-related initiatives (UN, 2023). In this context, private sector corporations have been called upon to harness their creativity and leadership by integrating the SDGs into their business models, strategies, and core operations (Rosati and Faria 2019b, 2019a; Nicolò et al. 2024; Zampone et al. 2024).

Schramade (2017) posits that companies should invest in the SDGs for two primary reasons: returns to society and returns to shareholders. He argues that beyond the societal benefits, investing in the SDGs makes good business sense, as such companies are better positioned for future changes in the competitive and regulatory environment. Thus, the 2030 Agenda, offers more than a blueprint for making the world a better place; it also unlocks substantial market opportunities for business (Schramade 2017; Nicolò et al. 2024). This shift necessitates an effective regulatory framework, greater accountability, and broader corporate reporting, focusing on key actions that advance the SDGs. Consequently, corporate SDGs reporting has become imperative for corporations to "enhance the understanding of their activities' positive and negative impacts on key sustainability issues and demonstrate their business case to stakeholders" (Zampone et al. 2024, p. 172). Furthermore, investors and other relevant stakeholders are increasingly embracing SDGs disclosures to effectively track corporate SDG-related initiatives. This reporting practice better informs their decision-making processes, making it pivotal in ensuring commercial success and preserving legitimacy (Nicolò et al. 2024). Along these lines, corporate SDGs reporting has emerged as an important research stream within the accounting academic community, given its potential area to contribute to achieving the SDGs.

2.4 Chapter summary

This chapter discussed some developments within the sustainable development discourse. It commenced by highlighting some historical background of major UN initiatives including the Brundtland Commission's report through to the development of the SDGs. The chapter further discussed the private sector's involvement in the SDGs as a development actor, and how the 2030 Agenda has gained prominence within corporate and public policy arenas. Throughout this chapter, the emphasis is made on the fact that the SDGs represent a topical issue in the transition towards a more sustainable society and corporations are at the heart of delivering on the SDGs. The investment requirements for the SDGs coupled with the scope of business meant that the private sector could not afford to neglect them.

Accordingly, the increasing social and political pressures on businesses to take a lead role in delivering the SDGs suggest that the private sector has a major role to play. However, for the private sector's SDG-related initiatives and contributions to be noteworthy, there is a need for an accountability mechanism that ensures that relevant stakeholders are informed. A credible and transparent accountability mechanism requires a system of measurement and reporting firms' SDG-related impacts and initiatives that meaningfully contribute to achieving the SDGs. In this sense, corporate SDGs reporting has become imperative to manage business impacts on the SDGs, as well as communicating to various stakeholders the private sector's contributions to the UN 2030 Agena. In concluding, the chapter underscored how corporate reporting on the SDGs has emerged as a research field, demonstrating the role of the accounting academic community in promoting the achievement of the SDGs.

Chapter 3

Research Methodology

3.1 Introduction

In the chapter, the discussion outlines the philosophical assumptions and research paradigm underpinning the study. The chapter commences with a discussion on the philosophical orientation and paradigm of the research and provides justifications for the methodological choices made in this study. This is followed by a section on the research approach and strategy adopted for this study. The chapter proceeds with the last section on summary and conclusions.

3.2 Research philosophy

According to Saunders et al. (2019, p. 130), research philosophy refers to “a system of beliefs and assumptions about the development of knowledge.” The literature on research philosophy underscores some implicit or explicit assumptions and positions about the nature of the social world and how it may be perceived and investigated (Burrell and Morgan 1979; Creswell 2007; Saunders et al. 2019). These assumptions are fundamental and inevitably inform the choice of research methods to employ and how the findings are interpreted (Crotty 1998; Saunders et al. 2019). Accordingly, Lukka (2010, p. 111) contends that being conscious of this set of often implicit, but fundamental assumptions and values underpinning our research ‘should be recognised as one the virtues of true scholarship’. Creswell (2007) confirms this, stating further that good research must include sections that explicitly disclose the underlying assumptions, and at a minimum, be aware of how they influence the study. This is because researchers bring their own set of beliefs, values, and worldviews to the research, which invariably informs how propositions are developed and confirmed as well as the techniques for data collection and management. Therefore, being knowledgeable or consciously aware of the various philosophical assumptions and making these assumptions explicit in the study affords the researcher to design a coherent research project.

Over the years, the literature on methodology describes an extensive range of philosophical assumptions that underpin social science and management research (Burrell and Morgan 1979; Guba and Lincoln 1994; Creswell 2007; Saunders et al.

2019). Prominent among these assumptions are ontology (realism versus nominalism) and epistemology (positivism versus anti-positivism). The ontological assumption relates to the assumptions about the nature of reality and the development of knowledge or the phenomena under investigation (Burrell & Morgan, 1979; Saunders et al., 2019). These assumptions shape the researcher's worldview and thus, determine the objects to investigate. The ontological debate in the literature is centred around two opposing perspectives i.e., realism and nominalism (Burrell & Morgan, 1979; Creswell, 2007; Saunders et al., 2019). Advocates of the nominalist position contend that reality is a 'socially constructed' phenomenon and thus, the social world external to the individual's cognition encompasses nothing more than names (Burrell and Morgan, 1979). Thus, the underlying reality of the social world is limited to what is attributed to it by the social actors. In contrast, realism maintains that the social world external to an individual's cognition consists of tangible, granular, and hard structures which exist as empirical entities irrespective of our perception of these structures (Burrell and Morgan, 1979). For the realist, social and physical phenomena exist independently of the views and perceptions of the social actors and 'tend to be universal and enduring in character' (Saunders et al., 2019, p. 135).

On the other hand, epistemology is generally concerned with assumptions about knowledge, what constitutes 'acceptable, valid, and legitimate knowledge', and how knowledge can be communicated (Burrell and Morgan, 1979; Guba and Lincoln, 1994; Saunders et al., 2019). Epistemological assumptions determine whether knowledge as a concept can be acquired or has to be personally experienced (Burrell and Morgan, 1979). According to Bell and Bryman (2007), the meaning and identification of knowledge should be developed and obtained within the acceptable boundaries of a particular discipline. Two extreme epistemological positions can be identified within the literature: positivism and anti-positivism (Burrell and Morgan, 1979). Positivism seeks to explain or predict the happenings in the social world by identifying causal relationships and patterns between its fundamental elements. Proponents of this epistemological position maintain that the researcher is independent of the phenomena or objects under study and thus, knowledge is developed by testing hypotheses and experiments (Krauss 2005). In this regard, the research findings are likely to be deemed objective and generalisable (Saunders et al., 2019). Conversely, proponents of the anti-positivist epistemology contend that the social world can only be understood from the perspective of the social actors who are directly involved in the phenomena under study. Unlike positivism, the anti-positivist epistemology takes an inside approach emphasising that the social world can only be understood by 'occupying the frame of reference' of the individual or participant involved in the action (Burrell and Morgan, 1979, p. 5).

While scholars have long debated the desirability of several research philosophies in business and management research, two contrasting positions have emerged in the literature – pluralism and unificationism (Kakkuri-Knuuttila et al. 2008; Lukka 2010; Saunders et al. 2019). In this study, the researcher adopts a pluralist position and argues that each philosophical assumption provides a unique lens for understanding the nuances inherent in various organisational settings. Pluralism encourages the diversity of research philosophies as opposed to unificationism which helps in enriching the accounting discipline. The following sections provide a detailed justification for the philosophical choices made in this study.

3.3 Research paradigm

Related to the foregoing discussions on research philosophy is another crucial element commonly referred to as research paradigm. Guba (1990, p. 17) conceptualised research paradigm as "a basic set of beliefs that guide action". Saunders et al. (2019, p. 140) extend this further by stating that a paradigm is "a set of basic and taken-for-granted assumptions which underwrite the frame of reference, mode of theorising and ways of working in which a group operates". It relates to the political and ideological orientation of the researcher towards the social world being investigated. Research paradigms vary among researchers and have continued to evolve within the social sciences. These paradigms are derived from the various ontological and epistemological positions which translate into different approaches to research (Guba, 1990; Patton 1990). Historically, the debate on research paradigms mainly took a two-fold classification: objective vs subjective or functionalist vs naturalist paradigms (Burrell and Morgan 1979; Lincoln and Guba 1985; Saunders et al. 2019). By combining the objectivist-subjectivist continuum with the regulation-radical change continuum, Burrell and Morgan (1979) proposed three alternative distinct and rival paradigms in addition to the 'dominant' functionalist paradigm. The central argument of the authors is that various organisational paradigms rely on strictly conflicting philosophical assumptions such that an attempt to integrate elements from different paradigms in a single study 'is a fatal mistake' (Kakkuri-Knuuttila et al. 2008). Accordingly, Burell and Morgan noted the strongly emphasized the incommensurability of paradigms, advocating that different research paradigms generate "incommensurable kinds of knowledge" (Morgan 2007, p. 62). This has undoubtedly inspired the emergence and use of various alternative approaches in management and accounting research (Kakkuri-Knuuttila et al. 2008). Over the years, several researchers have challenged the views espoused by Burrell and Morgan particularly, the arguments against the commensurability of paradigms (Chua 1986; Willmott 1993; Hassard 2012). Despite its criticisms, Burrell and Morgan's framework is a useful starting point for understanding the different approaches in social science research (Laughlin 1995)

Suffice to highlight that the "paradigm wars" transcend beyond the literature on research philosophy and methodology (Chua 1986). The accounting discipline has had its fair share of the seemingly unending debates about what constitutes "premier" accounting scholarship (Tomkins and Groves 1983; Chua 1986; Lukka 2010; Wahyuni 2012). Lukka (2010, p. 112) acknowledges that such debates are necessary and offer the academic community the means to pause for some time and re-evaluate "what we are actually doing in a more fundamental sense". The methodological literature documents the emergence of several positions regarding the subjective/objective dichotomy, with purists emerging on both ends. Some scholars contend that rather than a dichotomy, these approaches can be modified to form a continuum with several positions. Laughlin (1995) proposed 'middle range thinking' as a specific paradigm option along the continuum whereas Pihlanto (2003) calls for the integrative use of subjectivism and objectivism in accounting research. In this regard, pragmatism has emerged as an alternative paradigm in accounting research with its heavy borrowing from both subjective and objective dimensions to knowledge (Laughlin, 1995). For the current study, pragmatism is adopted as the researcher's ideological position given that the study seeks to explore corporate reporting practices on the SDGs. The assumptions underpinning pragmatism, discussed in detail below, align with the purpose of the study.

3.3.1 Pragmatism

Originating in the late nineteenth century in the scholarly works of American philosophers Charles Sanders Pierce, William James and John Dewey, pragmatism seeks to build bridges between competing paradigms (Johnson and Onwuegbuzie, 2004). Along these lines, pragmatists argue that no one perspective or approach is capable of providing a complete picture of social reality (Tashakkori and Teddlie 1998). They recognise that there are many alternative ways of interpreting the world such that no single approach can ever provide a complete view of reality (Kelemen and Rumens, 2012; Saunders et al. 2019). Accordingly, pragmatism rejects as irrelevant the notion that research paradigms are mutually exclusive and hence cannot peacefully coexist in a single study. Pragmatism as an alternative research paradigm seeks to reconcile both the subjective and objective schools of thought by considering the roles that theories and concepts play "as instruments of thought and action and in terms of their practical consequences" (Saunders et al., 2019, p. 151). Pragmatists contend that truth aims to "anticipate future experience" rather than conforming to the world (Kelemen and Rumens, 2012, p. 9). In this sense, proponents of pragmatism underscore the existence of multiple realities, which calls for multiple methods of enquiry in order to achieve 'concrete reasonableness'. For pragmatists, the concepts and values from different methodological camps can harmoniously co-exist within a single study. Thus, the primary objective of pragmatism is to shed light on how different research approaches can be consolidated in a manner that provides the best opportunities for addressing pertinent research questions. Moreover, methodological pluralism enhances the usefulness of knowledge for communities by capturing the multifaceted concerns and voices present to enrich our understanding of the complex and ambiguous practice that surrounds us (Kelemen and Rumens, 2012).

In line with the pragmatist logic, this study adopts pragmatism as the researcher's philosophical framing. The pragmatist paradigm is considered more appropriate for this study considering the inherent limitations of positivist and interpretivist philosophies. The assumptions underpinning pragmatism, particularly the compatibility of paradigms (Howe 1988) align with the thesis' primary purpose of exploring corporate reporting practices on the SDGs. As Howe (1988, p. 14) asserts, compatibilism "steers a middle course that avoids running aground on either the positivist or interpretivist methodological islands.” Given that the researcher seeks to explore the motivations, intrinsic antecedents, and the scope and quality of SDGs reporting, pragmatism is most suitable as it accommodates multiple methods in a single study. Pragmatism allows the adjustment of research methods in response to the demands of the research (Howe 1988). Hence, the integration of both positivist and anti-positivist elements in a single research is legitimate, as it makes room for methodological pluralism and reflexivity, both relevant in presenting knowledge that progresses our thinking (Kelemen and Rumens 2012).

3.4 Research methodology

The choice of research methodology in a study is informed by the researcher’s assumptions about the nature of reality and what constitutes legitimate knowledge. It is worth acknowledging that the concepts of methodology and methods have often been used interchangeably in the literature, partly because they are both concerned with the way the researcher attempts to address the research questions. Yet, several scholars emphasize that although these concepts are related, they are distinct and have different meanings (Creswell 2007; Teddlie and Tashakkori, 2011; Wahyuni 2012). According to Teddlie and Tashakkori (2011), research methodology specifies how research questions should be asked and answered, general preferences for designs, sampling logic, analytical strategies, inferences made on the basis of findings, and the criteria for establishing quality. On the other hand, research methods include specific strategies and procedures for collecting and analysing data, including research design, sampling procedures, data collection, and data analysis strategies. Similarly, Wahyuni (2012) associates research methodology with the research paradigm while research methods include the specific procedures, techniques, and tools to collect, manage, and analyse the data. Research methodology encompasses the set of beliefs and philosophical assumptions that guide the researcher in selecting appropriate methods to address the research objectives.

Broadly, the literature on research methodology identifies three main research designs: quantitative, qualitative, and mixed-methods research designs. Generally, qualitative designs are associated with research that seeks to explore, understand, and make sense of the subjective and socially constructed meanings articulated about the phenomenon being investigated (Denzin and Lincoln 1995; Creswell 2007;

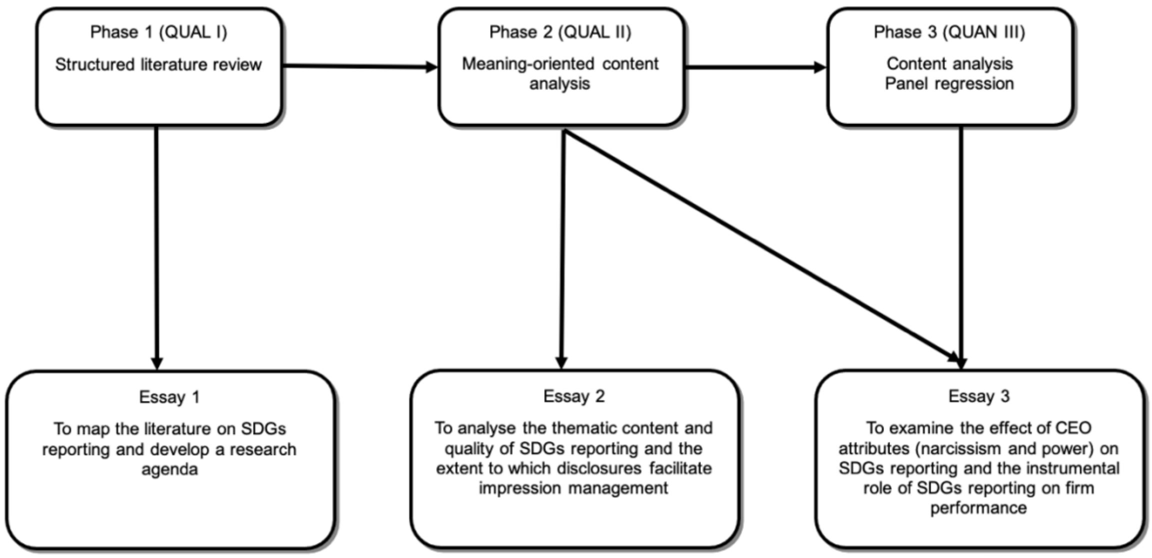
Saunders et al. 2019). It is often associated with the interpretivist or naturalist paradigm since it allows researchers to operate within a natural setting, so trust and participation is established within meanings and in-depth understanding. Accordingly, qualitative research is value-laden and allows the researcher to derive meanings from a variety of sources including words, images, and videos to develop a conceptual framework and make a significant contribution to theory. Thus, qualitative research permits inductive, deductive, and abductive approaches to theory development (Saunders et al. 2019). In contrast, quantitative research is generally rooted in positivism and seeks to examine relationships between several variables, measured numerically and analysed using a range of statistical techniques with the aim of testing theory. This type of research is generally deductive and views social reality as external and independent. Hence, the research is value-free as the researcher is detached from the phenomenon being researched and thus, maintains an objective stance about the results. Quantitative research design employs large samples, is highly structured, and uses probability sampling techniques to ensure the generalisability of research findings.

Considering the inherent limitations of these two research methodologies, mixed-methods research emerged as an attempt to integrate both quantitative and qualitative data collection and analysis techniques in a single research project (Saunders et al., 2019). As noted by Johnson and Onwuegbuzie (2004), mixed-methods combine quantitative and qualitative research techniques, methods, approaches, concepts or languages in the same research project. This research methodology seeks to legitimise methodological pluralism in answering research questions, as opposed to constraining the researcher’s choices. Mixed-method research designs are inclusive, complementary, pluralistic and expansive, allowing flexibility in the selection and use of methods. Philosophically, mixed-methods design is grounded in the pragmatist paradigm, and thus may adopt an inductive, deductive, or abductive logic of enquiry (Howe 1988; Johnson and Onwuegbuzie 2004; Morgan 2007). Despite its criticism, mixed-methods research is appropriate for exploring complex social issues using a diverse range of qualitative and quantitative techniques. Given the exploratory nature of this study, a mixed-methods design is considered appropriate in providing an in-depth investigation of the phenomenon. This research design allows the researcher to overcome the limitations of mono-method research designs, thereby allowing a greater diversity of views to be informed and reflected in the study (Johnson and Onwuegbuzie 2004; Saunders et al. 2019).

In particular, a mixed-methods design is deemed appropriate for this study for two reasons. First, the study consists of three original essays with different research questions on corporate reporting on the SDGs. According to Johnson and Onwuegbuzie (2004), one of the main strengths of mixed-method design is its ability to answer a broader and more complete range of research questions. In this regard, mixed-methods design is more suitable given the complementarity it offers particularly in extending and enhancing the results from one study with the results from another (Bryman 2006). Second, a mixed-methods design is deemed appropriate due to the flexibility it offers as well as the ability to provide a more complete knowledge relevant to inform theory and practice. Thus, the integration of the strengths of both qualitative and quantitative designs allows the researcher to produce a more holistic knowledge that is superior to monomethod studies. As Bryman (2006) emphasises, mixed-method design facilitates the development, expansion, and completeness of knowledge by offering a more comprehensive account of the area of enquiry. In this context, the researcher may use the results from one method to develop and expand the breadth and range of enquiry in different components of the research (Bryman 2006; Teddlie and Tashakkori 2011). Consequently, mixed-methods concurrently addresses an extensive range of exploratory and confirmatory research questions, culminating in a more in-depth understanding of the phenomenon (Teddlie and Tashakkori 2011).

Furthermore, a sequential mixed-methods design is employed in this study. A sequential mixed-methods design incorporates two or more phases of data collection and analysis to expand or elaborate on the initial set of findings (Saunders et al. 2019). This approach is more appropriate for studies that intend to build a new research instrument due to challenges with existing instruments (Creswell 2009). Moreover, a sequential mixed-methods approach is more appropriate when exploring emerging research issues with limited or fragmented literature. In mixed-method studies, the researcher may use qualitative research and quantitative research equally or unequally (Creswell 2009; Saunders et al. 2019). In such situations, the weight assigned to either quantitative or qualitative research may vary, such that one methodology is dominant, while the other plays a supporting role (Saunders et al. 2019). Thus, the use of block letters (QUAN, QUAL) depicts the dominant priority, while using lower case (quan, qual) indicates a lower priority (Harrison 2013). This study adopted a sequential three-stage design, including phase one QUAL I component, followed by QUAL II and QUAN III (QUAL I → QUAL II → QUAN III), as presented in Figure 3–1.

Figure 3-1. Research process



Source: Author's own creation

3.5 Sources of data and data analysis

In line with the integrated thesis structure adopted for this study, multiple data sources and data analysis methods were employed in this study. With each chapter being a fully-fledged research article, the researcher used several data sources and data collection and analysis techniques for the three papers presented in this thesis. In this chapter, a summary of the research methods is presented with a detailed discussion presented in each of the ensuing chapters.

3.5.1 Corporate reporting on the Sustainable Development Goals: A structured literature review and research agenda

Given the nascent and fragmented nature of research on corporate reporting on the SDGs, the first paper seeks to map the focus of the prevailing research, how it has developed over the period, and identify areas to advance the field further. In this regard, a structured literature review (SLR) methodology was employed to systematically explore the corpus of corporate SDGs reporting research, map its trajectory, offer a critique and suggest potential future research directions. As noted by Massaro et al. (2016, p. 767), an SLR is "a method for studying a corpus of scholarly literature, to develop insights, critical reflections, future research paths and research questions". It offers a systematic, replicable and transparent process that mitigates researchers' inherent biases and provides a log of procedures and conclusions(Tranfield et al. 2003; Kotb et al. 2020). In doing so, the review sought to address three main research questions:

RQ1. How has research for inquiring into corporate SDGs reporting developed?

RQ2. What is the focus of the corporate SDGs reporting literature?

RQ3. How can future research advance the field of corporate SDGs reporting?

The researcher employed a keyword search ("sustainability report*" or "corporate social responsibility report*" or global reporting initiative report*" or "triple bottom line report*" and "sustainable development goals" including the abbreviations of these terms) in three databases (Web of Science, Scopus, and EBSCO Host) to ensure that the review is comprehensive. The search generated an initial sample of 572 articles. 89 articles were selected for review after refining the initial sample to include only peer-reviewed articles published in business, management, and accounting categories, and eliminating 102 duplicate articles. The full texts of 89 of these articles were thoroughly read independently by three authors to ensure that the review included only articles primarily focussed on corporate reporting on the SDGs. In this regard, the selection criteria were as follows:

- The objective of the research paper should relate to corporate engagement with the SDGs and SDGs reporting
- The article should discuss corporate SDGs reporting or corporate engagement and disclosures on SDGs in sustainability reports, corporate social responsibility reports or annual reports.

This process generated a sample of 65 articles focussed on corporate SDGs reporting as the basis for the SLR.

3.5.2 Accounting for the Sustainable Development Goals: Walking the talk or managing impressions?

In this study, the researcher explores how FTSE 100 companies disclose their contributions to the SDGs and examines whether these disclosures reflect the outcome of genuine accountability to stakeholders, or merely represent impression management. Despite the growing prevalence of SDG-related disclosures in corporate sustainability reports, these disclosures continue to present a significant challenge owing to the complexity and diverse nature of the SDGs. While corporate reporting on the SDGs has garnered considerable interest within the accounting academic community, only a handful of researchers have examined the thematic content and quality of SDG-related disclosures. Along these lines, a critical perspective has emerged, characterising SDGs reporting as largely symbolic rather than substantive (e.g., Heras-Saizarbitoria *et al.*, 2021; Silva, 2021). As Nicolò *et al.* (2024) stress, a superficial approach to SDGs reporting could potentially undermine investors' decision-making processes and foster distrust and tensions among stakeholders, posing severe threats to companies' reputation and continued viability. In this sense, the study seeks to contribute to this critical view by offering new insights regarding the substantive or symbolic nature of SDG-related disclosures, and the extent to which such disclosures facilitate impression management.

This study employs a qualitative approach to explore the thematic content and quality of SDG-related disclosures and the different impression management strategies present in these disclosures. The analysis focuses on listed companies in the United Kingdom specifically FTSE 100 companies, given the dearth of SDGs reporting research emanating from this region (Silva 2021; Botchway and Bradley 2023; Awuah et al. 2024). To understand the scope and quality of the prevailing reporting practice, the researcher considered the most recent reports available, as they offer a snapshot of the companies' performance (Silva 2021). Therefore, the study examined the sustainability performance reports (sustainability reports, corporate social responsibility reports, economic, social and governance reports, integrated reports, and annual reports) of FTSE 100 companies, published during the 2022 financial year. A disclosure framework and typology of impression management strategies were developed and employed in analysing the thematic content and quality of SDG-related disclosures and the use of impression management in the disclosures.

In evaluating the content and quality of SDGs reporting, we adopt a meaning-oriented multi-stage qualitative content analysis (Boiral 2013; Cooper and Slack 2015). First, a text search with the following terms "sustainable development goal*" or "SDG*" was performed to identify the sustainability performance reports that reference the SDGs. This process yielded 75 sustainability performance reports. For each report, we analysed the SDG-related disclosures and teased out from the reports those passages relevant to the firm's SDGs performance. We define the unit of analysis as single sentences because they are relatively more reliable than pages or paragraphs (Michelon et al. 2015). Next, we apply our disclosure framework to the narrative disclosures to capture the disclosures pertaining to firms' SDG-related initiatives. In this process, the disclosures on SDGs performance were analysed and coded into the disclosure framework based on the content it refers to (business case, priority SDGs, SDGs sub-targets, business impacts, performance objectives, and actions). For instance, we analyse relevant extracts to identify how firms conclude on which SDGs are material to their operations. This is crucial because although the SDGs are interrelated, not all 17 goals are equally relevant to every company. These disclosures improve transparency and help address the increasing concerns about firms engaging in SDGs washing or 'cherry-picking' (Heras-Saizarbitoria et al. 2021). Also, we coded the SDG-related disclosures according to the type of measures (qualitative, quantitative, financial, or non-financial) and managerial orientation (historical, forward-looking, organisational commitment). Managerial orientation assesses the commitment at the top management level (references to the SDGs in the chairman or CEO's report) and whether SDG-related disclosures are either historical or forward looking.

Furthermore, we study three impression management strategies: thematic manipulation (statements and keywords); structural manipulation (emphasis by reinforcements); and assertive/defensive strategies. We adopted manual meaning-oriented content analysis of the SDG-related narratives. Specifically, we analysed the disclosures on firms' specific actions or SDG-related initiatives to examine the presence of impression management. We chose both statements and keywords as the unit of analysis to allow for methodological triangulation (Brennan et al. 2009). Statements and keywords were classified into both positive and negative (Clatworthy and Jones 2003; Brennan et al. 2009). We developed a list of keywords based on lists derived from previous studies (Abrahamson and Amir 1996; Henry 2008). The keyword analysis involved coding the number of times a keyword is mentioned within the SDG-related disclosures. Similar to Abrahamson and Park (1994) and Brennan *et al.* (2009) we included grammatical variations of words as separate keywords (e.g. “lead”, “leader”, “leading”). Furthermore, statements were classified as positive or negative based on the nature of the information disclosed. Following Rodrigue *et al.* (2015), statements were considered to be (i) positive when it reflected an activity undertaken by the firm with beneficial implications on the SDGs and (ii) negative when it reflected an activity undertaken by the firm with detrimental implications on the SDGs. Where a sentence refers to more than one issue that could be analysed separately, we treated the issue as a separate statement. Accordingly, we code each statement as either assertive or defensive based on our impression management framework. Assertive strategies attempt to explain an event in a way that maximises the implications for the actor, making them effective strategies for legitimacy management. This involves presenting corporate actions in a manner that is likely to be perceived by stakeholders as a success. Drawing on previous studies (Tedeschi and Melburg 1984; Hooghiemstra 2000; Cooper and Slack 2015), we focus on three assertive strategies: organisational promotion; enhancements; and entitlements. In contrast, defensive strategies tend to address negative outcomes or repercussions by dissociation, providing excuses or justifications, and the use of apologies (Hooghiemstra 2000; Edgar et al. 2018). Extensive details regarding the data analysis process is presented in Chapter 4.

3.5.3 CEO narcissism, power, and corporate SDGs reporting: An empirical analysis

This paper explores the intrinsic motivations for corporate reporting on the SDGs by (i) assessing the relationship between the chief executive officer’s (CEO) narcissism and power on SDGs reporting, (ii) investigating the extent to which CEO age influences the narcissism – SDGs reporting nexus (iii) examining the effect of SDGs reporting on firm performance. Our motivation to investigate these issues stems from a dearth of literature regarding the internal antecedents and value relevance of SDG-related disclosures. Drawing on the upper echelons theory (Hambrick and Mason

1984; Carpenter et al. 2004; Hambrick 2007), the study investigates whether CEO attributes specifically narcissism and power, influence corporate SDGs reporting. Given the concerns regarding the value relevance of SDGs reporting, we extend the literature by investigating the instrumental role of SDGs reporting on firm performance.

To achieve the objectives of this study, a quantitative research approach was employed. We test our hypotheses on a sample consisting of CEOs of selected FTSE 100 companies in the period between 2018 and 2022. Also, the sample was limited to include only firms in which the same individual had occupied the CEO position during the period under study. Further, only firms with complete SDGs disclosure data available for the entire period were included in the final sample. Consequently, the final sample consists of 65 firms with a total of 325 CEO-firm observations. Data was obtained from archival and publicly available data sources. Data on firms' SDGs performance and CEOs was collected from sustainability performance reports which were downloaded from the companies' websites. Accordingly, CEO compensation data and financial data were obtained from the Thomson Reuters Eikon database. Consistent with prior literature, a generalised estimating equations modelling technique was employed to test the hypothesised relationships (Liang and Zeger 1986; Ballinger 2004). 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). An extensive discussion about variable measurement has been provided in Chapter 5.

3.6 Chapter summary

This chapter sought to discuss the research philosophy and provide justification for the methodological choices made by the researcher. The chapter began with a discussion of philosophical assumptions as well as the research paradigm that underpins this study. This was proceeded with a discussion on the research methodology and methods employed in this study, highlighting their strengths in relation to the purpose of the study. Specifically, a pragmatist paradigm is adopted, with a mixed-methods design chosen as the approach for the study.

Chapter 4

Corporate reporting on the Sustainable Development Goals: A structured literature review and research agenda[3]

[3] This chapter has been published in Journal of Accounting and Organizational Change.

Awuah, B., Yazdifar, H. and Elbardan, H., 2024. Corporate reporting on the Sustainable Development Goals: a structured literature review and research agenda. *Journal of Accounting and Organizational Change,* 20 (4), 617–646. https://doi.org/10.1108/JAOC-10-2022-0155

4.1 Introduction

Over the past two decades, the concept of sustainable development has become topical since it gained widespread recognition and political authority (United Nations World Commission on Environmental Development, 1987). Subsequently, the advent of the 2030 Agenda in 2015 has intensified the commitments to sustainable development at both the national and corporate levels. The 2030 Agenda includes a set of 17 Sustainable Development Goals which represent broad challenges faced by countries across the globe and require urgent attention to promote a quality environment, social cohesion and economic welfare (Avrampou *et al.* 2019; Bebbington and Unerman, 2018). To engender the maximum stakeholder support for the goals, several measures were adopted before their launch. Key among these actions includes the involvement of the private sector during the development phase of the framework (Sachs 2012; Dsouli et al. 2018). Accordingly, Target 12.6 of the SDGs requires member states of the United Nations (UN) to urge companies to adopt and integrate sustainability practices and information in their corporate reporting cycle (UN, 2015).

The private sector's participation has been identified as a critical success factor (Caprani 2016). In particular, corporate engagement with the SDGs is closely linked to corporate accountability, as they provide a framework for companies to strategically align their operations and sustainability efforts with socially accepted goals. By committing to the SDGs, companies are publicly declaring their intent to contribute to sustainable development which establishes some degree of accountability to their stakeholders. Pizzi *et al*. (2021) emphasise that accounting practices play a crucial role in assisting policymakers in evaluating the private sector's contributions. Hence, corporate SDGs reporting represents the primary mechanism to communicate organisations' present actions and strategies aimed at contributing to the SDGs (Avrampou *et al.*, 2019; Bebbington and Unerman, 2020). Subsequently, corporate SDGs reporting has gained traction in both academic and practitioner debates (Bebbington & Unerman, 2018; KPMG, 2022). Although the SDGs may accelerate corporate disclosures on sustainable development, the voluntary nature of the practice creates the risk of firms engaging in SDG-related rhetoric (Macellari *et al*., 2021).

In recent times, the literature on corporate SDG reporting has demonstrated an upsurge in the practice. For instance, KPMG (2022) observed that 74% of the global 250 companies sampled disclosed some SDGs information in their reporting media. However, corporate disclosures are largely unbalanced as the majority of companies (68%) disclose only their positive impacts on the goals. Few companies report at both goal and target levels with quantitative performance targets for their organisations (PwC, 2019). Empirically, several authors document a steady upsurge in corporate SDGs reporting since their adoption (Bose & Khan, 2021; Erin & Bamigboye, 2021). This notwithstanding, they conclude that corporate engagement is largely symbolic and often a tool for impression management. Issues related to firms' present actions taken, measurement of targets and means of operationalising the SDGs are unfortunately missing. Implicit from the foregoing is the fact that challenges exist regarding corporate attempts at integrating the goals into business processes, identifying targets, target measurement and reporting. Yet, a key responsibility of the accounting discipline is to support strategic and operational decision-making by providing stakeholders with timely and quantitative information (Bebbington & Unerman, 2020). Hence, accounting research can assist in developing innovative solutions to tackle the integration and reporting challenges.

Table 2. Summary of prior literature reviews on SDGs and management research

Authors	Literature Review Methodology	Objective of the Study	Study Scope
Pizzi et al. (2020)	Bibliometric analysis and Systematic review	To map the contribution of business and management scholars to the discussion surrounding the SDGs	266
Bebbington & Unerman (2020)	Traditional review	To explore the puzzle of a relative absence of accounting-related scholarship that addresses the SDGs	3
Bebbington & Unerman (2018)	Narrative Synthesis	To establish and advance the role of academic accounting in the pursuit of the United Nations SDGs	Not mentioned

Research on corporate engagement with the SDGs requires an in-depth as well as evidence-based analysis to bring to the fore firms' contribution to the goals and issues influencing corporate actions towards the SDGs. However, accounting research is currently not evolving in a manner that articulates the SDG-related challenges facing organisations (Bebbington and Unerman, 2020; Hopper, 2019). Recently, there has been a substantial improvement in the number of studies exploring corporate engagement with the SDGs as well as how organisations communicate their contributions. Consequently, the literature on corporate SDGs reporting is beginning to mature as more scholars devote particular attention to this emerging field. While several articles focus on some specific themes, other relevant aspects of corporate SDGs reporting remain unexplored. The scant literature appears fragmented as various scholars approach the field from different perspectives and framings resulting in contradictory findings. Hence, a review is imperative to map the focus of the prevailing research, how it has developed and identify avenues to develop the field further. This study primarily seeks to systematically explore the corporate SDGs reporting research to map its trajectory, offer a critique and establish how the field may develop further.

It is worth highlighting that some scholars have reviewed the connections between the SDGs and management research (Table 2). While these reviews provide valuable insights into the contributions of management scholars to the pursuit of the SDGs, they tend to be broad in scope, offering only a general overview of the SDGs and management research. As a result, they only partially analyse corporate SDGs reporting as a research field. Hence, corporate SDGs reporting literature is often relegated to a secondary position, becoming merely an element of the review rather than its primary focus (Pizzi *et al.,* 2021). Also, some of these reviews tend to be relatively unstructured, commentary and rooted in authors' knowledge of the phenomenon (Bebbington and Unerman, 2018). In light of this, further reviews are necessary, especially at the preliminary stages of a novel research field such as corporate SDGs reporting (Dumay et al. 2016). Our review goes a step further to explore the broad scope of corporate SDGs reporting literature published across various journals, authors, organisations, themes, approaches, methods and theories, using a structured literature review (SLR) methodology. In doing so, three main research questions are addressed:

RQ1. How has research for inquiring into corporate SDGs reporting developed?

RQ2. What is the focus of the corporate SDGs reporting literature?

RQ3. How can future research advance the field of corporate SDGs reporting?

The remainder of the paper is structured into three distinct sections. Section 2 details the methodology adopted for this review purpose. Section 3 presents the answers to our first two review questions with a descriptive analysis and critique of the articles based on our analytical framework. Finally, Section 4 outlines our conclusions and directions for further research.

4.2 Structured literature review methodology

To gain insights, critique the literature and identify potential future research directions for corporate SDGs reporting, we use an SLR method. Massaro *et al.* (2016, p. 767) define an SLR as "a method for studying a corpus of scholarly literature, to develop insights, critical reflections, future research paths and research questions". This review method offers a systematic, replicable and transparent process that mitigates researchers' inherent biases and provides a log of procedures and conclusions (Tranfield et al. 2003; Kotb et al. 2020; Elbardan et al. 2023). Further, SLRs are useful in discovering unexplored topics and methods, encouraging, therefore, the advancement of new knowledge areas and research approaches (Guthrie *et al.*, 2012; Massaro *et al.,* 2016). Given that corporate SDGs reporting is an emerging field within the social and environmental accounting literature, conducting an SLR is appropriate to gain insights into the available literature, offer critiques and develop a future research agenda. The following sections describe the steps taken to undertake the literature review.

4.2.1 Literature review protocol

To ensure a systematic and rigorous review process, we developed a review protocol that outlined our review questions, methods, study types and how data will be appraised and synthesised (Petticrew and Roberts 2008). First, an analytical framework was defined to identify the units of analysis within the papers, and a manual coding procedure was developed to extract relevant information from each article. This coding technique allowed for the identification and coding of words and phrases with similar meanings (Guthrie et al. 2012; Massaro et al. 2015). As an SLR takes the form of a content analysis where the articles under review constitute the unit of analysis, we conducted Krippendorff's inter-coder reliability test to minimise the risk of subjectivity and coding bias (Hayes and Krippendorff 2007).

4.2.2 Literature search

In line with prior SLRs (Kotb *et al.*, 2018; Massaro *et al.*, 2016), a keyword search approach was adopted for the review. First, we derived a list of keywords from prior studies comprising “sustainability report*” or “corporate social responsibility report*” or global reporting initiative report*” or “triple bottom line report*” and “sustainable development goals” including the abbreviations of these terms. To ensure a comprehensive review of the literature, we analysed multiple databases including Web of Science, Scopus and EBSCO Host – Business Source Ultimate. This was designed to retrieve articles with titles, abstracts and keywords containing the specified terms.

The search was conducted on 28 February 2023 which generated a preliminary sample of 572 articles. To ensure uniformity, we refined the search to include only peer-reviewed articles published in business, management and accounting categories, which reduced our results to 230. After eliminating 102 duplicates, two authors thoroughly read the abstracts of the remaining articles to exclude those not related to the research theme. The third author independently validated the exclusion process. Following this, 89 articles were identified for final selection. In this stage, the three authors independently read the full texts of all 89 articles to ensure that only articles primarily focussed on the research theme were included. The selection criteria were as follows:

- The objective of the research paper should relate to corporate engagement with the SDGs and SDGs reporting.
- The article should discuss corporate SDGs reporting or corporate engagement and disclosures on SDGs in sustainability reports, corporate social responsibility reports or annual reports.

This process resulted in identifying a sample of 65 articles focussing on corporate SDGs reporting as the basis for the SLR (see Appendix 1). Figure 4–1 demonstrates the selection and evaluation process.

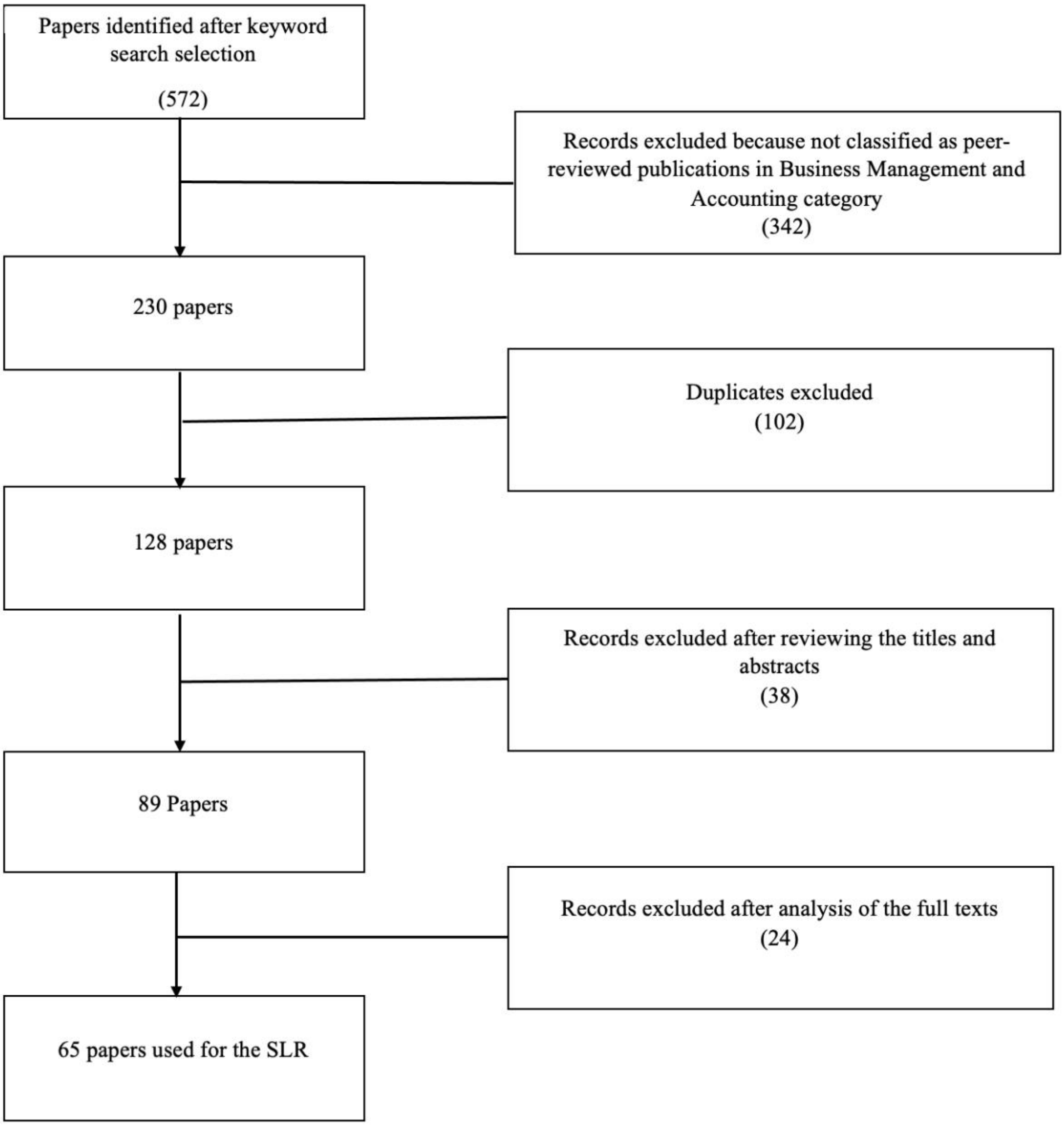
4.2.3 Article Impact

Consistent with prior SLRs, we used Google Scholar citations to determine the impact of the 65 articles (Dumay *et al*., 2016; Kotb *et al*., 2018, 2020). Data were obtained from Google Scholar on the number of citations for each article as of 11 March 2023. Table 3 presents the top ten most cited articles by Google Scholar citations. While citations from the top ten most cited articles are sufficient to establish the impact of articles in any field, it does not take cognizance of the time effect (Massaro et al. 2015). To address this, we measure the impact of the articles using the number of citations per year (CPY), and the results are presented in Table 4.

In analysing both tables critically, it was observed that seven articles appeared in both rankings (García-Sánchez *et al.*, 2020; Pizzi *et al.*, 2021; Rosati and Faria, 2019a, 2019b; Tsalis *et al.*, 2020; van der Waal and Thijssens, 2020; van Zanten and van Tulder, 2018). It is worth mentioning that the study by Rosati and Faria (2019a) examining the relationship between SDGs reporting and country-level institutional factors is the leading article in both rankings. Being one of the early empirical studies on corporate SDGs reporting may explain the high number of citations for this paper. Additionally, we observe that more recent studies have been included in Table 4 (Khaled et al. 2021; Pizzi et al. 2021, 2022; Silva 2021) signalling an interest among researchers to cite the latest SDGs reporting research.

Further, our analysis indicates that corporate SDGs reporting is a research field of growing importance, highlighting the value of the SDGs to the corporate world. Further analysis reveals that 31 journals published at least a paper on SDGs reporting, while 26 journals were cited at least once. As exhibited in Table 5 most cited journals are the *Journal of Cleaner Production (1176), Corporate Social Responsibility and Environmental Management (618), Journal of International Business Policy (377), Sustainability (345), and Business Strategy and the Environment (244).* These results indicate the quality of research on SDGs reporting even though this field gained traction in 2018. However, it is interesting to mention that none of these papers were published in any of the top accounting journals. Authors are publishing in emerging journals which mostly do not have accounting as their primary focus. We adopted the chartered association of business schools (CABS) ranking to analyse the rank of the journals publishing SDGs reporting research. Our results reveal that the CABS ranking lists 60% of the top ten most cited journals.

Figure 4-1. Literature search and selection process



Source: Author's own creation

4.2.4 Analytical framework

To develop our analytical framework, we adopted Guthrie *et al*.'s (2012) criteria which have been extensively adopted by prior studies (Dumay et al. 2016; Kotb et al. 2020; Pizzi et al. 2020). We modified some classifications of the framework to suit our review topic. This includes replacing the general/other attributes of the organisational focus category with two new attributes (public and private sector and mixed), replacing the literature focus category with research themes and a different set of attributes relevant to corporate SDGs reporting, excluding intellectual capital accounting frameworks and models, excluding commentary/ normative/policy and theoretical: literature review/empirical attributes under research methods category since our review focussed on only empirical research. Further, two new attributes (Africa and Global) were added to the location category. We added four additional categories: author region, research method and authorship. Thus, our analytical framework consisted of eight different categories, with attributes ranging between three and seven. The final analytical framework is presented in Table 6. Five of the articles were independently read by the lead author and coded in a spreadsheet. This process was repeated by the second author. An inter-coder reliability test was conducted which yielded a score of 0.87 indicating that the analytical framework and coding are reliable. Further discussions were held to clarify any discrepancies and inconsistencies identified.

4.2.5 Article coding

After conducting the reliability test, one of the authors coded the articles and recorded the results in an Excel spreadsheet. To allow for the inclusion of new relevant categories, an open coding approach was adopted (Dumay *et al*., 2016). The remaining authors reviewed the results in the spreadsheet to ensure consistency.

4.3 Insights and critique

In this section, we provide empirical insights to address research questions: one “How has research for inquiring into SDGs reporting developed?” and two “What is the focus and critique of the SDGs reporting literature?” The results of the empirical insights are presented in Table 6.

4.3.1 Authorship

Our first category (authorship) examines the leading authors and affiliations in the corporate SDGs reporting field (Kotb *et al*., 2018). The attributes for this category include A1 Sole Author; A2 Two Authors; A3 Three Authors; and A4 Four Authors. As evident from Table 6, we found that 5 papers were authored by a sole author, 22 papers were co-authored by two authors, 18 papers were written by three authors and 20 articles were authored by four researchers. In total, the 65 articles were authored by 183 authors with an average publication of 2.82 authors per article. Interestingly, only 25 authors have contributed more than once to the field. As evident in Table 7, there are only four authors who have authored or co-authored three articles each.

These are Rosati (Department of Management Engineering, Technical University of Denmark, Denmark), Pizzi (Department of Economic Sciences, Universita del Salento, Italy), Venturelli (Department of Economic Sciences, Universita del Salento, Italy) and Ordonez-Ponce (Faculty of Business, Athabasca University, Canada). Furthermore, only 9 authors (e.g. Rosati, Faria, van der Waal, Pizzi) are part of the cluster of 20 authors who published the 10 articles with the highest CPY. The findings demonstrate the absence of a superstar effect where a few authors churn out most of the papers in a particular field (Serenko et al. 2011). In terms of author contribution, our analysis suggests that only a handful of authors have high specialisation on the topic while the remaining authors contribute just once to this field of knowledge.

Table 3. Top 10 articles by Google Scholar citations

	Reference	Title of Article	Google Scholar Citations
1	Rosati and Faria (2019a)	Addressing the SDGs in sustainability reports: The relationship with institutional factors	398
2	van Zanten and van Tulder (2018)	Multinational enterprises and the sustainable development goals: an institutional approach to corporate engagement	377
3	Rosati and Faria (2019b)	Business contribution to the Sustainable Development Agenda: Organizational factors related to early adoption of SDG reporting	268
4	Tsalis *et al.* (2020)	New challenges for corporate sustainability reporting: United Nations' 2030 Agenda for sustainable development and the sustainable development goals	251
5	van der Waal and Thijssens (2020)	Corporate involvement in Sustainable Development Goals: Exploring the territory	189
6	Pizzi *et al.* (2021)	The determinants of business contribution to the 2030 Agenda: Introducing the SDG Reporting Score	137
7	Avrampou *et al.* (2018)	Advancing the Sustainable Development Goals: Evidence from leading European banks	112
8	Garćia-Sánchez *et al.* (2020)	Do institutional investors drive corporate transparency regarding business contribution to the sustainable development goals?	107
9	Ike *et al.* (2019)	The process of selecting and prioritising corporate sustainability issues: Insights for achieving the Sustainable Development Goals	98
10	Fonseca and Carvalho (2019)	The Reporting of SDGs by Quality, Environmental, and Occupational Health and Safety-Certified Organizations	94

In terms of author affiliation, our analyses indicate that 70% of the authors are affiliated with institutions in Europe while authors from institutions in the Australasian and North American regions were 12% and 9%, respectively (Table 8). Surprisingly, only 4% of the authors are affiliated with institutions in the UK. Similar to prior studies, the findings indicate the dominance of authors from the European region (de Villiers et al. 2014; Dumay et al. 2016). This may be attributed to the European Union's (EU) increased attention to sustainable development, particularly, the SDGs framework (Wong 2019; Shevchenko et al. 2021). The EU's rich history of policies and regulatory reforms aimed at incorporating sustainable development into its activities and member states makes the region a data-rich environment for research on sustainable development. Additionally, European scholars tend to focus on broader research traditions, such as social and environmental accounting, whereas North American scholars tend to focus more on positivist capital market research (Parker and Guthrie 2014; Dumay et al. 2016). Also, our analyses indicate that only 13 out of the 65 articles were co-authored collaborations between authors from different countries (Avrampou et al. 2019; Curtó-Pagès et al. 2021; Hummel and Szekely 2022). Thus, we note that international collaborations between authors are sparse, particularly between authors from different regions as well as collaborations between authors and practitioners.

4.3.2 Jurisdiction

The jurisdiction category, which includes five attributes, is adopted from Guthrie *et al*. (2012). As our review focusses on the empirical literature, all the articles are deemed to have adopted an organisational approach. These include B1 supra-national/international – industry, for articles focussing on industries in two or more countries; B2 supra-national/ international – organisational, for articles on different organisations operating in more than one country; B3 national – industry, for studies using industries operating in a particular country; B4 national – organisational, for studies on organisations in a particular country; and B5 one organisation, for articles focussing on one organisation. As evident in Table 6 we observe that most articles focussed on the organisational level – either from a national or supra-national/international perspective. Specifically, 25 articles investigated SDGs reporting focussing on different organisations across countries, whereas 23 studies analysed this phenomenon from a national-organisational perspective. Further, 13 papers adopted a supra-national/international–industry focus, whereas 4 studies were classified as national-industry. Interestingly, no study focusses on a single organisation. It is important to stress that most scholars attempt to generalise findings across organisations rather than exploring the practice within organisations.

Table 4. Top 10 articles by citations per year

	Reference	Title of Article	CPY
1	Rosati and Faria (2019a)	Addressing the SDGs in sustainability reports: The relationship with institutional factors	100
2	van Zanten and van Tulder (2018)	Multinational enterprises and the sustainable development goals: an institutional approach to corporate engagement	75
3	Rosati and Faria (2019b)	Business contribution to the Sustainable Development Agenda: Organizational factors related to early adoption of SDG reporting	67
4	van der Waal and Thijssens (2020)	Corporate involvement in Sustainable Development Goals: Exploring the territory	63
5	Tsalis *et al.* (2020)	New challenges for corporate sustainability reporting: United Nations' 2030 Agenda for sustainable development and the sustainable development goals	63
6	Pizzi *et al.* (2022)	Voluntary disclosure of Sustainable Development Goals in mandatory non- financial reports: The moderating role of cultural dimension	52
7	Pizzi *et al.* (2021)	The determinants of business contribution to the 2030 Agenda: Introducing the SDG Reporting Score	46
8	Silva (2021)	Corporate contributions to the Sustainable Development Goals: An empirical analysis informed by legitimacy theory	37
9	Garćia-Sánchez *et al.* (2020)	Do institutional investors drive corporate transparency regarding business contribution to the sustainable development goals?	36
10	Khaled *et al.* (2021)	The Sustainable Development Goals and corporate sustainability performance: Mapping, extent and determinants	32

4.3.3 Location of research

The location of the research category was adopted from Guthrie *et al*.'s (2012) original category (regional focus). This category was adapted by adding two new attributes (Africa and Global) to the initial five attributes under this category. The final set of attributes includes C1 North America, consisting of the USA and Canada; C2

Australalasia, consisting of Australia, New Zealand and Asia; C3 UK; C4 Europe; C5 Africa; C6 Global, that is studies carried out in more than one region; C7 Other, for any study that cannot be classified under any of these classifications, such as countries in South America and the Gulf region.

As highlighted in Table 6, the active regions for SDGs reporting research were Europe leading with 27 papers, followed by studies that adopted a Global approach with 23 papers and Australasia with 5 papers. The dominance of the European region may be attributed to the promulgation of Directive 2014/95/EU by the EU which requires certain disclosures from some organisations in Europe. The *Non-Financial Reporting Directive* (Directive 2014/95/ EU) requires large public interest entities to disclose nonfinancial information relating to environmental, social and employee-related, human rights, anti-corruption and bribery matters (European Commission 2014; Biondi et al. 2020). According to Gazzola *et al.* (2020), there is a clear linkage between the SDGs and the disclosure requirements of the EU directive. In a related study, Krasodomska *et al.* (2022) conclude that the EU directive (Directive 2014/95/ EU) positively impacted corporate SDGs reporting in the EU.

Table 5. Top 10 most cited journals

Journal	Articles	ABS ranking	Citations
Journal of Cleaner Production	14	2	1176
Corporate social responsibility and environmental Management	7	1	618
Journal of International Business Policy	1	-	377
Sustainability (Switzerland)	7	-	345
Business Strategy and the Environment	3	3	244
Sustainable Development	5	-	189
Corporate Governance	1	2	57
Journal of International Financial Management and Accounting	1	3	52
Organisation and Environment	2	-	47
Journal of Applied Accounting Research	2	2	37

Furthermore, several authors emphasise the importance of transnational institutions such as the United Nations Global Compact (UNGC) in driving corporate engagement with the SDGs (Rosati and Faria 2019b; Krasodomska et al. 2023). Thus, Europe's dominance as the active region can be attributed to the fact that more European firms, particularly those in Spain and Germany, participate in the UNGC. As there is a close association between the SDGs and the UNGC, participating companies are more likely to report their contributions to the SDGs.

The least popular regions for SDGs reporting research include the UK (Silva 2021; Botchway and Bradley 2023) and Africa (Erin and Bamigboye 2021; Gerged and Almontaser 2021) both with 2 articles each and North America with 1 article (Guandalini et al. 2019). Surprisingly, these regions contribute little to this field as we find few studies focussing on these regions. Further, we observed that some papers used organisations across two different regions, for instance: North America and Europe with one article (van Zanten and van Tulder 2018), and Australasia and Africa with 1 article (Kazemikhasragh et al. 2021).

4.3.4 Organisational focus

Our fourth category is the organisational focus which examines the type of organisations researchers study. The attributes are D1 public listed organisations; D2 private – small and medium enterprises (SMEs); D3 private – others; D4 public sector; D5 public and private; D6 not for profit; D7 mixed. The results in Table 6 demonstrate that publicly listed companies constitute the most researched organisation (43 articles), followed by studies that used mixed organisations with 14 articles. Only a few studies focus on other organisations including the public sector with three articles, SMEs with two articles and not-for-profit organisations (one article). The dominance of studies on publicly listed organisations as an organisational focus can be attributed to the ease of access to standalone sustainability reports, annual reports, CSR reports and other documents communicating their SDGs performance.

4.3.5 The focus of SDGs reporting literature

This category was adopted from Guthrie *et al*. (2012), however, adapted to reflect the themes generated in our SLR. The specific attributes for this category are E1 business strategy; E2 drivers of SDGs reporting; E3 extent of SDGs reporting; E4 SDGs engagement/involvement; E5 performance measurement; and E6 others to record articles that could not be classified under any of the themes identified.

We identify that the dominant research theme is SDGs engagement or involvement at the firm level (22 papers), followed by the extent of SDGs reporting (18 papers). Drivers of SDGs reporting as a research focus was the third most popular theme explored by the authors with 17 articles. Also, we find that the least explored themes are Business Strategy with three studies and Performance Measurement (two studies). Accordingly, four papers were coded as "other", as we could not classify them under the predefined themes. We examined these papers further for any similarities to determine whether a new attribute is required. However, we could not identify any similarities between these three papers to warrant the creation of a new attribute. Among these include assessing the implementation of SDGs through switching costs (Guandalini et al. 2019), selling recommendations by analysts (García-Sánchez *et al.*, 2020), and monetizing the impacts of Spanish companies on the SDGs (Diaz-Sarachaga 2021a).

It is interesting to note that the focus of SDGs reporting research has evolved over the period since the launch of the Global goals in 2015. The focus of SDGs literature in the early years was primarily on business strategy, drivers of SDGs reporting and extent of SDGs reporting. However, since 2020 the focus of most papers has shifted to firms' engagement/ involvement with the SDGs and the drivers SDGs reporting as highlighted in Figure 4–2.

4.3.6 Theoretical framework

The theoretical framework category examines the various theories used by prior authors to explore corporate SDGs reporting. The attributes for this category are F1 none, and F2 adopts an existing theory. We find that 46 papers do not have any theoretical underpinning while 19 papers apply a theory or an integration of theories. Further, we note that the popular theories used include legitimacy theory, institutional theory, stakeholder theory and signalling theory indicating that authors do not adopt a common theoretical framework to investigate the phenomenon. We contend that many authors already possess prior knowledge of these theories due to their widespread use in related fields such as sustainability reporting. Additionally, corporate SDGs reporting in its current form is largely voluntary, providing companies with flexibility in determining what to report and how to report. However, with all forms of voluntary disclosures, they may be used to reinforce firms' legitimacy-seeking behaviour (Merkl-

Davis and Brennan 2007). In this regard, these theories dominate the field due to their usefulness in understanding corporate voluntary disclosure behaviour (van der Waal and Thijssens 2020; Heras-Saizarbitoria et al. 2021; Silva 2021). For instance, Silva (2021) used the legitimacy theory to understand the legitimation strategies companies adopt in reporting their engagement with the SDGs. The study identified four different legitimation strategies (conciliatory, transparency, stimulation and transformative) companies adopt in reporting their SDGs performance.

4.3.7 Research methods

This category highlights the spread of research methods used in investigating the field. We adapted the original attributes by deleting two attributes (commentary/normative/policy and theoretical: literature review/empirical), as our review focusses on the empirical literature on corporate SDGs reporting. Thus, our attributes for the research methods category are G1 content analysis/historical analysis; G2 surveys/questionnaires; and G3 case/field study/interviews. Consistent with prior SLRs, we observe that content analysis/historical analysis of various reporting media was the most popular and commonly used method with 57 articles (86%). Few scholars adopt case studies/interviews (three articles) and surveys/ questionnaires (one article) (van Zanten & van Tulder, 2018) to investigate the phenomenon. Additionally, a strand of papers uses a combination of methods including content analysis and questionnaires (one article) (Erin and Bamigboye 2021) and content analysis and interviews (Battaglia et al. 2020; Diaz-Sarachaga 2021a; Botchway and Bradley 2023). The strong preference for content analysis/historical analysis can be attributed to the ease of access to firms' SDGs disclosures contained in the various reporting media.

4.3.8 Research approach

To explore the methodological approaches adopted by prior studies, we added a research approach category adopted. The attributes for the research approach category include *H1* quantitative; *H2* qualitative; and *H3* mixed, for studies that adopt both qualitative and quantitative methods. Consistent with the dominance of content analysis in Section 3.7, we observe that 46 papers adopt a quantitative approach. Also, 16 papers adopted a qualitative approach, whereas 3 studies used a mixed approach (Costa et al. 2022; Ordonez-Ponce and Weber 2022). The results indicate a diversity of research approaches used by authors which is indispensable in exploring uncharted research fields to facilitate a broader understanding of the phenomenon (Kolk et al. 2017; Pizzi et al. 2020)

Table 6. Results of analysis of corporate SDGs reporting articles

	Total	%
Authorship		
Sole Author	5	8%
Two Authors	22	34%
Three Authors	18	27%
Four Authors	20	31%
Jurisdiction		
Supra-national/International - Industry	13	20%
Supra-national/International - Organizational	25	38%
National - Industry	4	6%
National - Organizational	23	35%
Location		
North America	2	3%
North America & Europe	1	2%
Australasia	7	11%
United Kingdom	2	3%
Australasia & Africa	1	2%
Europe	27	41%
Africa	2	3%
Global	23	35%
Organizational focus		
Public listed	43	66%
Private- SMEs	2	3%
Private- Others	1	2%
Public Sector	3	4%
Public and Private	1	2%
Not for Profit	1	2%
General/Other	14	21%
Research theme		
Business strategy	3	5%
Drivers of SDGs reporting	17	26%
Extent of SDGs reporting	18	27%
SDGs Engagement	22	34%
Performance measurement	2	3%
Others	3	5%
Theory		
None	46	71%
Adopts an existing theory	19	29%
Methods		
Content Analysis/Historical analysis	57	87%
Content Analysis & Surveys/Questionnaires	1	2%
Content Analysis & Case studies/Interviews	3	5%
Surveys/Questionnaires	1	2%

Case studies/Interviews	3	5%
Research Approach		
Quantitative	46	70%
Qualitative	16	25%
Mixed	3	5%

4.3.9 Findings

Finally, the findings of the papers were analysed (Kotb et al. 2018, 2020). We juxtaposed key findings to identify areas of similarities and contradictions in line with the themes identified in section 3.5.

Table 7. Most prolific authors

No. of articles	Authors	Affiliation	Country
3	Pizzi, S.	Department of Economic Sciences, Università del Salento	Italy
3	Venturelli, A.	Department of Economic Sciences, Università del Salento	Italy
3	Rosati, F.	Department of Management Engineering, Technical University of Denmark,	Denmark
3	Ordonez-Ponce, E.	Faculty of Business, Athabasca University	Canada

4.3.9.1 SDGs engagement

As indicated earlier, SDGs engagement has been the most popular theme. Interestingly, the evidence of corporate involvement or engagement with the SDGs has been largely consistent. van der Waal and Thijssens (2020) conclude that corporate involvement with the SDGs remains largely symbolic and a tool for impression management. Further, Silva (2021) establishes that most firms legitimize their contributions to the SDGs with rather symbolic responses through conciliatory, transparency and stimulation strategies. Most papers indicate that firms provide limited disclosures on their selection of material SDGs, leading several authors to conclude that corporate engagement is superficial due to widespread cherry-picking and SDGs washing (Heras-Saizarbitoria et al. 2021; Costa et al. 2022). Implied from the foregoing, we note that there currently exists a lack of transparency in corporate disclosures regarding their SDGs engagement, particularly, disclosures on SDGs prioritisation and how material sustainability issues influence corporate contribution to the SDGs.

Table 8. Institutional affiliation

	Total	%
Europe	129	70%
Australasia	22	12%
North America	16	9%
United Kingdom	7	4%
Africa	6	3%
Other	3	2%

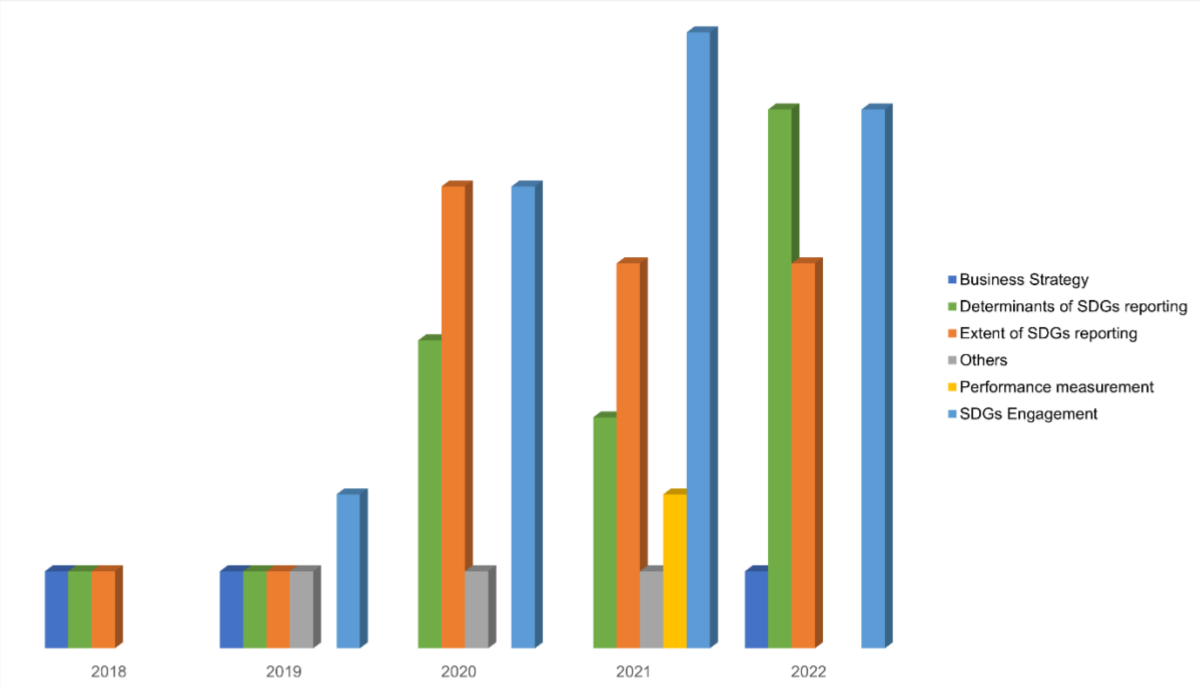
4.3.9.2 Drivers of SDGs reporting

Several authors have explored the drivers of SDGs reporting from various perspectives including institutional, regulatory and corporate governance factors. Consequently, different factors have been identified to drive corporate SDGs reporting. Rosati and Faria (2019a, 2019b) conclude that early adoption of SDGs reporting is driven by firm size, higher levels of intangible assets, female- dominated boards of directors, a higher commitment to sustainability frameworks and external assurance and a younger board of directors. Other factors have been identified to drive corporate SDGs reporting including board independence and sector/industry type (Elalfy et al. 2020; Pizzi et al. 2021); ownership and shareholding structure (García-Sánchez *et al.*, 2020); cultural dimension (Pizzi et al. 2022); and national level SDGs performance and environmental sensitivity (Gerged and Almontaser 2021).

4.3.9.3 Scope of SDGs reporting

The results of our analyses regarding the scope of corporate SDGs reporting indicate a uniform outlook across the studies in the review. We note that the scope of reporting has been limited both in terms of the quality and quantity of the disclosures. For instance, Avrampou *et al*. (2019) intimate that overall SDGs reporting among European banks is limited by inconsistencies in the extent of disclosures on the SDGs. Similarly, Di Vaio and Varriale (2020) observe that few organisations within the Italian airport industry report on the SDGs as well as provide details regarding effective key performance indicators for measuring their performance over time. In terms of SDGs reporting quality, Tsalis *et al*. (2020) conclude that the quality of SDGs disclosures among Greek firms is low and differs among industries, a finding consistent with most of the studies (Izzo et al. 2020; Curtó-Pagès et al. 2021; Erin and Bamigboye 2021; Macellari et al. 2021).

Figure 4-2 Research theme by year



Source: Author's own creation

4.3.9.4 Business strategy

The nexus between the SDGs and business strategy has courted the attention of scholars albeit few studies were identified. For example, van Zanten and van Tulder (2018) found that multinational enterprises (MNEs) primarily engage with only internally actionable SDGs to mitigate negative externalities. Accordingly, Ike *et al*. (2019) observe that Japanese MNEs prioritise SDGs 4, 8, 9, 11, 12, 14, and 17 in their plans to extend or enter new markets in Southeast Asia. The authors conclude that policymakers in host countries need to ensure important elements of the SDGs exist to attract the economic growth offered by MNEs.

4.3.9.5 Performance measurement

Some authors have investigated the influence of SDGs reporting on corporate financial performance with limited and inconclusive findings. Emma and Jennifer (2021) document that SDGs reporting is still more symbolic, suggesting little effect on firm performance. They conclude that SDGs reporting enhances the performance of firms in environmentally sensitive industries and only in specific companies by reducing information asymmetry or enhancing corporate reputation. In a similar study, Ahmad and Buniamin (2021) show a negative relationship between corporate SDGs engagement (social and economic dimensions) and corporate financial performance.

4.4 The future of corporate SDGs reporting research

In this section, we address the third research question "How can future research advance SDGs reporting?" In developing an answer, five broad areas are identified and discussed in the ensuing subsections.

4.4.1 Motivations for and challenges of SDGs reporting

First, we argue that SDGs reporting research in its current form has matured from the first stage of knowledge development, as demonstrated in the topics and focus of the existing literature. We note a seeming disconnect between scholars exploring this concept and the actual practice since most of the studies do not investigate the practice in specific organisations. As Dumay *et al*. (2016, p. 176) argue, researchers need to "leave their academic ivory towers and engage more with practice" to contribute to the development of SDGs reporting literature. There is a need to move beyond the confines of the offices and engage more with organisations to unearth the motivations and challenges concerning this practice. Research focussing on SDGs engagement and drivers of SDGs reporting continue to dominate the literature. We contend that these themes have dominated the literature because of the ease of access to non-financial disclosures of organisations that constitute data for such studies. This notwithstanding, the preliminary findings from these studies reveal a superficial engagement with the SDGs framework by firms. Thus, to advance the SDGs reporting literature beyond the current stage, there is a need for a critical examination of SDGs in practice.

Given the voluntary nature of this practice, studies exploring *why* companies report their SDGs performance, including the challenges and opportunities inherent are crucial. As more companies report on the SDGs, it is necessary to understand their engagement with these goals to accurately judge the reporting quality. Our review indicates a lack of anti-positivist research methods, suggesting the need for innovative qualitative research methods such as case studies and interview-based studies. Thus, we call for more interventionist research where scholars engage with relevant stakeholder groups, including management, sustainability committees of the board and regulators. Future research may explore how the SDGs framework is being integrated into business strategy and corporate reporting practices in line with Target 12.6. We believe that such research can enrich the discourse and contribute meaningfully to practice and theory development, challenging the long-held notion that accounting research contributes marginally to accounting practice (Dumay *et al*., 2016).

Moreover, research in emerging economies and organisations other than publicly listed companies could develop the field further. Our analyses indicate a dearth of SDGs reporting research emanating from these locations and organisational settings. Unlike publicly traded companies and MNEs, private companies particularly SMEs, have been relegated in the debate on SDGs disclosures. The literature suggests a relationship between firm size and SDGs reporting, as larger firms have more stakeholders to satisfy and more slack resources to devote to this practice. However, SMEs constitute the majority of organisations in emerging countries and contribute over 50% to the gross domestic product (Chege and Wang 2020). Moreover, emerging economies are most exposed to the ravaging effects of climate change and unsustainable development. Therefore, exploring this reporting practice in these research settings will contribute immensely to this field.

Furthermore, some scholars postulate that a country's legal system drives firms' sustainability practices (Liang and Renneboog 2017). In common law jurisdictions, the legal framework and regulations tend to be skewed toward shareholder interests (shareholder- oriented) (Benlemlih and Girerd-Potin 2017). In contrast, civil law jurisdictions are perceived to be more stakeholder-oriented and consider the interests of all stakeholders. Therefore, firms' behaviour toward voluntary reporting practices (such as SDGs reporting) is likely to be impacted by the legal system of the country in which they operate. Given that prior SDGs reporting research has not paid particular attention to regions including North America (the USA and Canada) and the UK which are typically common law jurisdictions, research investigating this phenomenon in these settings would contribute significantly to the field.

4.4.2 Theoretical innovation

Second, our analyses indicate that the current SDGs reporting research seems under-theorised as most scholars neither underpin their research with any theory/framework nor propose one to further advance the development of the field. This has been a major challenge for business and management researchers over the years. In particular, several scholars underscore the need for a theoretical framework to support policymakers on matters related to the SDGs (Kolk et al. 2017; Bebbington and Unerman 2018). Therefore, we call for more research that integrates theories or theoretical frameworks to investigate the phenomenon. The literature suggests that corporate SDGs reporting is largely symbolic and primarily used as an impression management tool. To understand the strategies companies adopt in reporting their contributions to the SDGs, the impression management theory is useful (Schlenker and Weigold 1992; Rosenfeld et al. 1995). This theory has been employed in other areas of social and environmental accounting literature such as sustainability reporting (Diouf and Boiral, 2017; Hooghiemstra, 2000; Sandberg and Holmlund, 2015); greenhouse gas reporting (Talbot and Boiral 2018); and biodiversity reporting (Boiral 2016). Similarly, the classical Aristotelian concept of persuasive rhetorical "proofs"– ethos (credibility), logos (reason) and pathos (emotion) – is a useful theoretical lens in understanding corporate disclosures on the SDGs (Burke 1969; Hyde 2004). Higgins and Walker (2012) adopted this theoretical lens to explore the strategies of persuasion in corporate social and environmental reports. Therefore, we argue that these theories are appropriate for studies exploring the *how* and *why* questions related to corporate SDGs reporting.

4.4.3 SDGs performance measurement

Further, it is evident from our analyses that SDGs reporting in organisations has been on the ascendency since 2015. Yet, the quality of the disclosures has been a challenge for most of the organisations reporting their contribution as well as the scholars exploring the phenomenon. Most scholars have resorted to measures that do not accurately represent the quality of reporting. In particular, we observed that while some authors use a dummy variable (whether the company has addressed SDGs or otherwise) to represent reporting, others consider the frequency of SDGs mentions (word counts). We maintain that although these measures offer preliminary insights into the practice, they remain limited in assessing the reporting quality according to recommended frameworks such as the global reporting initiative (GRI) standards and *SDG Compass* (GRI et al. 2015). Notably, few scholars have developed various reporting scores based on these frameworks to evaluate corporate SDGs reporting quality(Bose and Khan, 2021; Pizzi *et al.*, 2021). This approach offers a foundation for future research aimed at improving reporting quality. By mapping corporate SDGs reporting against these frameworks, accounting research can spur firms' efforts aimed at advancing the goals. This calls for an active engagement between the accounting academic community and practitioners in diverse organisational and socio-cultural contexts. Future studies may investigate how organisations select material SDGs, define priorities across the goals and identify suitable indicators to track their contribution and report on. Additionally, future research may examine whether organisations that focus on material SDGs related to their core business activities achieve higher contributions to the SDGs. Further, the impact of the COVID-19 pandemic on organisations' SDGs prioritisation is an area where future studies may focus.

4.4.4 SDGs reporting – performance nexus

The strategic value of sustainability disclosures in managerial decision-making is an important theme in the existing literature. Concerns about the quality and credibility of such disclosures raise the question of whether reporting accurately reflects organisations' underlying sustainability performance. Despite the growing research on SDGs reporting, its connection to corporate SDGs performance has received limited attention in the prevailing literature. The majority of the studies have predominantly focussed on legitimacy and stakeholder perspectives when exploring why and how organisations disclose SDGs performance (Elalfy et al. 2020; Yu et al. 2020; Silva 2021). However, it is worth considering that organisations may genuinely prioritise sustainable development and view the SDGs as a well-structured approach to improving corporate sustainability performance. In this context, the managerial perspective of sustainability reporting (Burritt and Schaltegger 2010; Schaltegger and Burritt 2010) offers a valuable theoretical framework for exploring these issues. According to the managerial logic, managers can use sustainability disclosures as an incentive to improve organisational sustainability performance (outside-in approach). This approach implies that managers may use reporting as a mechanism to drive incremental changes that could ultimately lead to transformational changes within the organisation over the long term (Schaltegger and Wagner 2006; Qian and Schaltegger 2017).

In this context, SDGs reporting can serve as a catalyst for driving organisational changes aimed at improving SDGs performance in subsequent periods. However, its role in serving management's information requirements as well as supporting managerial decision-making to implement corporate sustainability remains unexplored. Whether organisations use reporting to influence SDGs performance in subsequent periods, and the value of such disclosures to internal decision-making, are still open questions. Thus, we argue that, in addition to addressing legitimacy concerns and fulfilling stakeholder expectations, managers may employ SDGs reporting to inform corporate sustainability strategies, ultimately resulting in improved sustainability performance. While some literature has presented evidence of this phenomenon, particularly in the field of carbon accounting (Qian and Schaltegger 2017), limited research exists on this relationship within the field of SDGs reporting. Hence, we advocate for further research on the SDGs reporting and performance nexus. We believe that this is more crucial to managers, stakeholders and regulators, as it provides evidence regarding the value relevance of SDGs reporting. Consequently, future research may investigate the impact of SDGs reporting in fostering improved SDGs performance in organisations. Additionally, future research may explore how managers integrate the SDGs into their core business operations as well as the strategic use of reporting for internal decision-making.

4.4.5 More longitudinal research

Finally, we call for more research that adopts a longitudinal approach. As evident in our analyses, we found that most studies are cross-sectional, utilising data on organisations' SDGs performance obtained in a particular year (Avrampou *et al.*, 2019; Pizzi *et al.*, 2021; van der Waal and Thijssens, 2020). Additionally, most of the studies utilised data that was obtained within the early years after the launch of the goals. These studies provide early insights into the practice; however, we argue that the corporate SDGs reporting journey is a process rather than an event. Therefore, it will be useful to investigate how this reporting practice has developed within organisations over the period. Given that, we urge future studies to consider the influence of governance, organisational attributes and institutional and country-wide factors on

SDGs reporting on a longitudinal basis. Further, the exploration of the influence of corporate SDGs reporting on the transformative capacity of an organisation's sustainability orientation represents a compelling area of inquiry. Future research may investigate the mechanisms through which SDGs reporting engenders an organisation's sustainability approach, as well as its overarching sustainability practices implemented throughout the entire firm. This would necessitate a longitudinal analysis of corporate disclosures to ascertain any discernible shifts in sustainability-related disclosures over time after reporting on the SDGs. Additionally, it would be valuable for future research to extend beyond a single country or research context and adopt a longitudinal approach, thereby facilitating a cross-national comparative analysis of SDGs reporting. Exploring how organisations without an inherent sustainability focus are embracing the SDGs constitutes an important area that warrants attention in future studies. By addressing these aspects, a more comprehensive understanding of the adoption and impact of SDGs reporting can be attained to help develop the field further.

Surprisingly, the connection between SDGs reporting and organisational performance has been largely overlooked in the existing literature, indicating a significant research gap. Although few scholars have investigated this relationship (Ahmad and Buniamin, 2021; Emma and Jennifer, 2021), their findings have been inconclusive. Notably, these studies have predominantly focussed on the initial years following the introduction of the SDGs, possibly limiting their ability to capture the full extent of the impact on financial performance. By aligning corporate activities with the SDGs and reporting progress, companies can attract socially responsible investors and enhance their market reputation. Consequently, these incentives can act as a catalyst for increased investment in sustainable practices, technologies and innovation, leading to an overall improvement in sustainability performance. In this regard, future research may use longitudinal research methods to examine the link between SDGs reporting and corporate performance. This approach would enable a comprehensive understanding of the long-term effects and implications of SDGs reporting on firm performance. By addressing this research gap, scholars can contribute valuable insights to the field and offer guidance to organisations aiming to effectively integrate the SDGs into their reporting practices.

4.5 Conclusion and implications

In conclusion, we call for increased SDGs-motivated accounting research, given the significant opportunities for scholars to advance knowledge within this field. As the world grapples with the ravaging effects of the COVID-19 pandemic, achieving the SDGs seems more imperative than ever. The pandemic and geopolitical tensions have eroded years of progress and hindered the transition to greener economies and sustainable business practices. In light of these challenges, the UN has emphasised that the current progress towards the SDGs does not signal their achievement by 2030. Consequently, there is a renewed call for the private sector to intensify efforts aimed at enhancing corporate SDGs performance (UN, 2022). This underscores the critical role of corporate SDGs reporting research, particularly in assisting organisations to develop accounting and measurement approaches based on the SDGs and their targets. Through SDGs prioritisation and credible accounting measures, reporting can serve as the foundation for well-informed strategic decision-making within organisations. In effect, managers can make better decisions and pursue the SDGs more effectively, leading to improved corporate SDGs performance. Using an SLR methodology, this paper has reviewed 65 papers within the field of corporate SDGs reporting to identify insights on how the field has developed, offer a critique and suggest areas to advance this field.

The findings suggest that the prevailing literature succinctly describes corporate engagement with the SDGs as superficial. We observe that the current literature lacks theorisation and overly focusses on publicly listed companies. Further, regions such as North America, the UK and other emerging economies have received less attention from scholars. Also, research themes such as organisations' engagement with the SDGs and drivers of SDGs reporting dominate the existing literature. More so, the discourse is driven by the prevalence of research with positivist orientations and associated research methods. Accordingly, studies that use anti-positivist research methods to obtain evidence-based management perceptions on the phenomenon are currently lacking. In view of the foregoing, we have identified five broad areas that warrant the attention of researchers to advance the field further.

The review has important theoretical and practical implications. First, the paper provides a novel contribution to the emerging field of corporate SDGs reporting. The key theoretical implications of our SLR include the need for more interventionist research. The SDGs have transcended beyond the commitments given by the 193 UN member states and have gained salience among several actors, particularly the private sector. This salience is evidenced in the increased reference to the SDGs in various corporate reporting media. Despite the increasing disclosures by companies on their SDGs impacts, our results highlight that corporate disclosures are largely symbolic. Although there is an increasing number of accounting scholars developing research within this field, the prevailing research is concentrated on the scope and drivers of SDGs reporting, with limited research examining the managerial implications of SDGs reporting. Furthermore, the scientific discourse remains largely under-theorised with positivist framings primarily focussed on the “what” questions. The apparent disconnect between accounting scholars exploring this field and the actual practice requires that a modification to the current approaches and research methods is necessary to advance this field and contribute substantively to the challenge.

Further, our review has implications for practice. Our study reveals that companies are largely providing symbolic representations of their actions towards the SDGs. Therefore, this review provides practitioners with valuable insights into the current state of corporate engagement and reporting on the SDGs. The practitioner literature currently focusses on the percentage of companies reporting on the SDGs, their regional focus and the specific goals they report on (GRI and Support the Goals 2022; KPMG 2022). While this literature is useful in raising awareness among managers and stakeholders, it lacks an in-depth analysis of the practice (Schaltegger et al. 2023). To achieve more substantive engagement and reporting, a deeper understanding of the managerial implications and factors that influence corporate disclosure practices is necessary (Emma and Jennifer, 2021; Pizzi *et al.*, 2022). In particular, our review highlights that some scholars have examined the relationship between the SDGs and business strategy (Ike *et al.*, 2019; van Zanten and van Tulder, 2018) as well as financial performance (García Meca and Martínez Ferrero 2021). We argue that some of these research areas offer new opportunities for practitioners to enhance the value relevance of corporate SDGs reporting. To achieve this, an active partnership between the accounting academic community and practitioners, as emphasized by the SDGs framework, is essential.

Finally, as with all literature reviews, our findings are limited to the choices made regarding the keywords and scope of the data analysed and our interpretation of the results. Even though the methodology used in our present study is argued to offer more reliable results than a traditional review, scholars using the same methodology may interpret results differently

Chapter 5

Accounting for the SDGs: Walking the talk or managing impressions?[4]

[4] This chapter has been submitted for review to Accounting, Auditing, and Accountability Journal.

5.1 Introduction

Over the years, research into the role of businesses in promoting sustainable development has garnered considerable attention (Laine 2005; Gray 2010; Bebbington et al. 2017). This research field has more recently broadened with the launch of the United Nations' (UN) 2030 Agenda for Sustainable Development aimed at addressing "areas of critical importance for humanity and the planet" (UN, 2015, p. 3). The 2030 Agenda outlined a comprehensive framework comprising 17 interconnected Sustainable Development Goals and 169 targets intended to stimulate actions towards these critical areas. Despite originating as intergovernmental aspirations developed by government-oriented institutions (Schramade 2017), the SDGs hold significant relevance for the private sector. Along these lines, there have been mounting political and social pressures on corporations to integrate the SDGs into their core strategies, business models and reporting practices (Bebbington and Unerman 2018; Rosati and Faria 2019b; Nicolò et al. 2024). Consequently, disclosure of firms' SDG-related initiatives has increased significantly in recent years (Thammaraksa *et al.*, 2024; KPMG, 2022). Nevertheless, whether such disclosures promote accountability to stakeholders or represent another opportunity for sustainability-related rhetoric and/or reputation management remains an open question. While there is consensus that the SDGs can accelerate firms' sustainable development strategies and actions, Bebbington and Unerman (2018) underscore the potential of firms' masking business-as-usual through SDG-related rhetoric. Given that the SDGs are less corporate-focused, with reporting on business contributions still unregulated, managers have discretion over the content and manner in which this information should be communicated. In this regard, managers may deliberately use SDGs reporting to influence stakeholder impressions. Consequently, the prevailing literature remains divided on whether SDGs reporting represents genuine accountability or symbolic management (García Meca and Martínez Ferrero 2021; Silva 2021; Thammaraksa et al. 2024).

This paper aims to contribute to this stream of literature by investigating the information content and quality of SDG-related disclosures. In particular, we draw from prior sustainability disclosure and impression management research to examine whether and the extent to which managers use SDGs reporting to manage stakeholder perceptions regarding corporate contributions to the SDGs, or rather provide substantive information on firms' SDG-related initiatives. We develop an impression management typology to analyse the impression management strategies used to frame SDG-related disclosures. Corporate SDG reporting represents an attempt by companies to communicate to their stakeholders how their operations and activities are contributing to achieving the SDGs (Rosati and Faria 2019a; Pizzi et al. 2021). According to Schramade (2017, p. 88), the SDGs play a crucial role in corporate communications with their investors and other relevant stakeholders by "providing a framework and common knowledge for making an impact." In their recent survey on sustainability reporting, KPMG (2022) shows that 74% of the world's 250 largest companies provide SDG-related disclosures in their sustainability reports. While corporate SDG-related disclosures have increased in recent years, there has been a considerable degree of scepticism regarding the content, complexity, and quality of this information. For instance, KPMG (2022) highlights that SDG-related disclosures remain unbalanced, with only a third of the 250 companies surveyed disclosing both positive and negative impacts on the SDGs. Several studies have examined corporate reporting on the SDGs. Almost all of these studies, however, focus either on the influence of firm-specific and/or country-level institutional factors on corporate SDGs reporting (Rosati and Faria 2019a; García-Sánchez, Rodríguez-Ariza, et al. 2020; Pizzi et al. 2021; Subramaniam et al. 2023) or the effect of SDGs reporting on firm performance (García Meca and Martínez Ferrero 2021; Ramos et al. 2022).

Surprisingly, few scholars have devoted attention to the information content and quality of SDG-related disclosures (e.g., Lodhia *et al.*, 2023; Silva, 2021). Along these lines, a critical perspective has emerged, characterising SDGs reporting as largely symbolic rather than substantive (e.g., Heras-Saizarbitoria *et al.*, 2021; Silva, 2021). Although the SDGs provide a useful framework for firms' sustainable development efforts, they could also be used to mask corporate actions through SDG-related rhetoric. As Nicolò *et al.* (2024) stress, a superficial approach to SDGs reporting could potentially undermine investors' decision-making processes and foster distrust and tensions among stakeholders, posing severe threats to companies' reputation and continued viability. We seek to contribute to this critical view by offering new insights regarding the substantive or symbolic nature of SDG-related disclosures, and the extent to which such disclosures facilitate impression management.

Impression management occurs when management selects and presents information in a manner that distorts users' perceptions of corporate performance (Godfrey et al. 2003; Jones 2011). Prior impression management research suggests that organisations adopt several impression management strategies to maintain or improve their image (Merkl-Davis and Brennan 2007; Cho et al. 2010; Guillamon-Saorin et al. 2012; Edgar et al. 2021). In the context of the SDGs, the potential for impression management still deserves further attention for at least two reasons. First, SDGs reporting is relatively more narrative in nature, allowing for significant managerial discretion over the report content. Several scholars maintain that managers often prefer narrative disclosures due to their ability to deliberately shape and direct the narrative presented to stakeholders (Neu et al. 1998; Cho et al. 2010). As Neu *et al.* (1998, p. 269) underscore, narrative disclosures "allow managers to stage and direct the play they wish their publics to see, to pick the characters, to select the script and to decide which events will be highlighted and which will be omitted." Generally, SDG-related disclosures include narrative, non-quantifiable information regarding firms' strategies, policies, and actions towards relevant SDGs. As such, there is a potential risk that managers may (un)consciously tailor their SDG-related disclosures to manage public perceptions rather than providing value-relevant information for decision-making. Managers may intentionally bias these disclosures by manipulating the amount of information, thematic content, language and tone, and selectivity and presentation (Merkl-Davis and Brennan 2007; Cho et al. 2010). Given the qualitative nature of these disclosures, the textual elements such as tone and readability play a crucial role in framing firms' SDG-related initiatives.

Second, SDGs reporting remains largely unregulated, granting management complete discretion over the thematic content and presentation of information. This affords management, if it so desires, to frame SDG-related performance in a manner that portrays the company favourably. This is particularly relevant given the SDGs' broader focus beyond corporations, coupled with the uncertainty regarding the 'business case' for the SDGs (Scheyvens et al. 2016). Consequently, SDGs reporting presents ample opportunity for managing stakeholders' impressions, especially considering the mounting social and political pressures on companies to deliver on the SDGs. Management may attempt to ensure that SDG-related disclosures emphasise positive news while concealing negative aspects.

Based on these propositions, we examine whether SDG-related disclosures signify a genuine commitment to the UN 2030 Agenda (substantive approach) or merely represent an attempt to construct an image of an SDGs-committed organisation, tailored to influence stakeholders' perceptions (symbolic approach). Following Jones (2011), we argue that a substantive approach entails the disclosure of SDG-related information in an unbiased manner, in accordance with the requirements of the *SDG Compass* and KPMG's *quality criteria for SDGs reporting* (KPMG, 2018). Such disclosures are expected to be informative, providing quantifiable information to assist users in appreciating both positive and negative impacts on the SDGs, and the underlying corporate approach to the SDGs. Conversely, if a symbolic approach is adopted, we would expect SDG-related disclosures to be presented in a self-serving manner. For this purpose, we examine the sustainability performance reports of selected Financial Times Stock Exchange (FTSE) 100 companies for the 2022 financial year. We build on the disclosure framework proposed by Beretta and Bozzolan (2004) and KPMG (2018) to capture the content and quality of SDG-related disclosures, and the extent to which these disclosures support either substantive or symbolic management (Ashforth and Gibbs 1990). Following Brennan *et al.* (2009) and Merkl-Davis and Brennan (2007), we develop an impression management typology, exploring three strategies of impression management: thematic manipulation through statements and keywords; structural manipulation (emphasis by reinforcements); and attribution of performance (assertive/defensive). Finally, we develop a qualitative composite impression management score based on keywords, statements, and reinforcements to examine the extent of biased language or tone present in firms' SDG-related disclosures.

The remainder of the paper is structured as follows. The next section discusses corporate SDGs reporting research and our disclosure framework to capture the scope and quality of SDGs reporting. This is followed by a discussion on the theoretical framework underpinning the study from which we develop our typology of impression management strategies. Section 4 outlines the research methods and proceed to present our findings in Section 5. The paper concludes with a discussion of findings, implications, and suggestions for future research.

5.2 Literature review

5.2.1 Theoretical perspectives

Legitimacy theory models the congruence between an organisation's value system and the superordinate system (Dowling and Pfeffer 1975; Suchman 1995; Neu et al. 1998). Lindblom defined legitimacy as "[…] a condition or status which exists when an entity's value system is congruent with the value system of the larger society of which the entity is a part" (Lindblom 1994, p. 2). Legitimacy theory is premised on the idea that organisations exist to the extent that stakeholders consider that they are legitimate (Deegan 2002). Legitimacy is thus a critical resource that is conferred upon the organisation by its constituents when its actions are congruent with societal values and expectations. Any disparity (explicit or implied) between these two value systems results in a legitimacy gap. Legitimacy gaps may arise because of changing societal values and expectations (Lindblom 1994; Deegan 2002). Legitimation is the process whereby organisations justify their activities by gaining, maintaining or repairing their legitimacy (Suchman 1995; Edgar et al. 2018). According to Ashforth and Gibbs (1990), organisations manage legitimacy concerns either through substantive management or through symbolic management. Substantive management entails concrete, material changes in organisational actions intended to align organisational strategies and processes to social norms (Michelon et al. 2015). This involves real or actual changes in corporate actions and policies, which may translate into significant improvements and thus increase organisational legitimacy. On the other hand, symbolic management seeks to construct and maintain organisational legitimacy by portraying the organisation as socially responsible, and emulating certain practices coherent with societal values and expectations. The objective is to shape stakeholder perceptions about the organisation by creating a "new face to the outside world while protecting the inner workings of the organisation from external view" (Hopwood, 2009, p. 437).

An impressive body of literature suggests that managers tend to prefer symbolic actions over substantive ones due to the relative ease with which an organisation's image can be managed through narrative disclosures, as opposed to altering its outputs, goals, and operational activities to conform with social norms (Neu et al. 1998; Aerts 2005; Cho et al. 2010; Guillamon-Saorin et al. 2012). Through narrative disclosures, managers can attempt to legitimise their current activities by associating with “symbols, values, or institutions which have a strong base for social legitimacy” (Dowling and Pfeffer, 1975, p. 127). Along these lines, several scholars argue narrative disclosures provide an effective opportunity for organisational managers to deliberately manage stakeholders’ impressions (Aerts 2005; Cho et al. 2010; Brennan and Merkl-Davies 2013). Impression management traces its roots in the social psychology literature, where it has been predominantly used to understand the behaviour of individuals (Bolino et al. 2008; Edgar et al. 2018). From a corporate reporting perspective, impression management is considered as attempts to influence the impressions conveyed to users of accounting information. Godfrey *et al.* (2003, p. 96) assert that impression management “occurs when management selects the information to display and presents that information in a manner that is intended to distort readers’ perceptions of corporate achievement.” This involves the shaping of representations to influence stakeholder perceptions, by controlling *what* is disclosed and *how* (Bansal and Kistruck 2006). Generally, organisations tend to have strong incentives to employ impression management strategies in sustainability reporting. These incentives emanate from material self-interest in conveying an impression that the firm is achieving certain desirable social and environmental goals often imposed on the firm by various stakeholder groups (Merkl-Davies and Brennan, 2011). Previous studies suggest impression management often tends to be a low-cost and easy option to more substantive actions to improve organisational legitimacy (Neu et al. 1998; Boiral 2016). This involves the use of diverse strategies including expressions, graphs, and images to influence the impressions conveyed to the stakeholders (Cho et al. 2012). Along these lines, impression management can be viewed as a strategic tool for managing stakeholders’ perceptions and address threats to organisational legitimacy (Hooghiemstra 2000; Bansal and Kistruck 2006; Perkiss et al. 2021).

In the context of corporate SDGs reporting, organisational managers can be motivated to engage in impression management for at least two reasons. First, the SDGs signify intergovernmental aspirations to stimulate actions in critical areas of importance for humanity and the environment (UN, 2015). However, the goals have gained salience among several stakeholder groups (e.g., investors, public policy groups, professional bodies, and the media), culminating in mounting social and political pressures on corporations to act on the SDGs (Bebbington and Unerman, 2018; KPMG, 2018). Silva (2021) underscores that failure to address these pressures and stakeholder expectations may lead to threats to organisational legitimacy. Nevertheless, the SDGs are much more general and less corporate-focused, with the business case for the SDGs still in contention. Scheyvens *et al.* (2016, p. 380) argue, for example, that “the often rosy triple win rhetoric around the SDGs presents a fundamentally unrealistic picture and one that ignores clear tensions that are likely to arise between goals of different interest groups.” Second, while businesses have been encouraged to integrate the SDGs into their reporting practices, reporting remains unregulated, providing companies with considerable freedom in deciding the report content and how to report. Although the *SDG Compass* offers guidance in selecting and communicating firms’ SDG-related initiatives, many SDGs (e.g., SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 3 – Good Health and Well-Being) are either too general or lack prescriptive measurement indicators to capture firms’ contributions. In this regard, businesses might be expected to attempt to manage stakeholders’ perceptions by describing their SDG-related initiatives more favourably. Through a symbolic approach, companies may give the appearance of aligning their practices with the SDGs, even if this does not reflect the underlying reality. Additionally, companies may seek moral legitimacy by persuading various stakeholder groups that they are committed to doing the right thing and on course in delivering the SDGs. However, statements conveying organisational commitment and contributions towards the SDGs may rather be a simulacrum (Boiral 2013). In this context, the legitimacy and impression management perspectives offer a useful theoretical framing to extend the literature on corporate reporting on the SDGs.

5.3 Corporate reporting on the SDGs

The bulk of research has primarily concentrated on the drivers of SDGs reporting. Broadly, the drivers of SDGs reporting can be classified into country-level institutional factors and firm-level factors. Rosati and Faria (2019) identify several country-level institutional factors that influence SDGs reporting, such as climate change vulnerability, national corporate social responsibility, employment protection, and lower levels of market coordination. Similarly, Bose and Khan (2022) show that SDGs reporting is more prevalent in shareholder-oriented jurisdictions and in countries with established sustainability regulations and higher SDGs performance ratings. At the firm level, previous studies underscore various antecedents affecting SDGs reporting, including firm size, ownership structure, board characteristics, and chief executive officer attributes (e.g., Awuah *et al*., 2024; García-Sánchez *et al.*, 2020; Garrido-Ruso *et al.*, 2023; Martínez-Ferrero and García-Meca, 2020; Rosati and Faria, 2019b). For instance Subramaniam *et al.* (2023) document that institutional ownership, CEO duality, firm size, board gender diversity, sustainability committee and board experience in sustainability influence SDGs disclosure. In a related study, García-Sánchez *et al.* (2020) show that ownership by foreign investors, pension funds, and other investors affects corporate reporting on the SDGs. In summary, previous studies indicate that corporate SDGs reporting is influenced by a combination of organisational and country-level institutional factors.

Despite the extensive literature on the drivers of SDGs reporting, the prevailing accounting research has, however, not devoted much attention to the content and quality of SDG-related disclosures (exceptions are Lodhia *et al.*, 2023; Silva, 2021; van der Waal and Thijssens, 2020). Consequently, whether firms' SDG-related disclosures follow a substantive or symbolic approach remains largely inconclusive. Lodhia *et al.* (2023) explore the disclosure practices of Australian firms regarding their commitment to the SDGs, while Silva (2021) examines how businesses use SDG-related disclosures to manage their legitimacy. This body of literature suggests that, despite the increasing reference to the SDGs in corporate reporting, challenges persist in aligning the SDGs with the corporate objective of shareholder wealth maximisation. From a substantive perspective, SDGs reporting would be characterised by a genuine sense of accountability to stakeholders and a commitment to enhancing transparency. Under this approach, SDGs reporting should comprehensively detail corporate policies, objectives, targets, and actions related to priority SDGs including quantifiable information, thereby improving the quality of the information disclosed, and enhancing the stakeholders' engagement process. In addition, SDGs reporting should address the business impacts—both positive and negative—on the SDGs and how businesses are addressing these impacts, providing value-relevant information for the market. Along these lines, Nicolò *et al.* (2024) provide empirical evidence that SDG-related disclosures improve analyst forecast quality, highlighting the value-relevance of SDGs reporting to the market. Similarly, García Meca and Martínez Ferrero (2021) show that SDGs reporting improves the performance of companies in controversial and environmentally sensitive industries.

Conversely, a symbolic approach to SDGs reporting seeks to portray the company as an ‘SDGs-committed’ firm, with disclosures presented in a manner detached from the underlying reality (Hopwood 2009; Boiral 2013). This approach involves deliberately manipulating SDG-related disclosures to mask corporate activities, thereby influencing stakeholders’ perceptions of firms’ contributions to the SDGs. As Scheyvens *et al.* (2016) argue, one of the main barriers to SDGs integration is the clash between the dominant business model, which is rooted in short-term thinking, and the long-term focus of the SDGs. Additionally, the lack of clear reporting guidelines, regulatory enforcement, and the broad nature of the SDGs continue to pose significant challenges to corporate SDGs reporting (Nicolò et al. 2024). This raises concerns about the potential abuse and manipulation by managers, who control the reporting process. By managing *what* and *how* companies communicate their SDG-related accounting initiatives, organisational managers may selectively disclose information in a manner that builds or maintains their legitimacy and reputation, rather than seeking genuine accountability. Thus, in a symbolic approach to SDGs reporting, the disclosure would consist of boilerplate information that offers minimal value in enhancing stakeholders’ understanding of business impacts on the SDGs, and the specific actions aimed at addressing these impacts (Michelon et al. 2015).

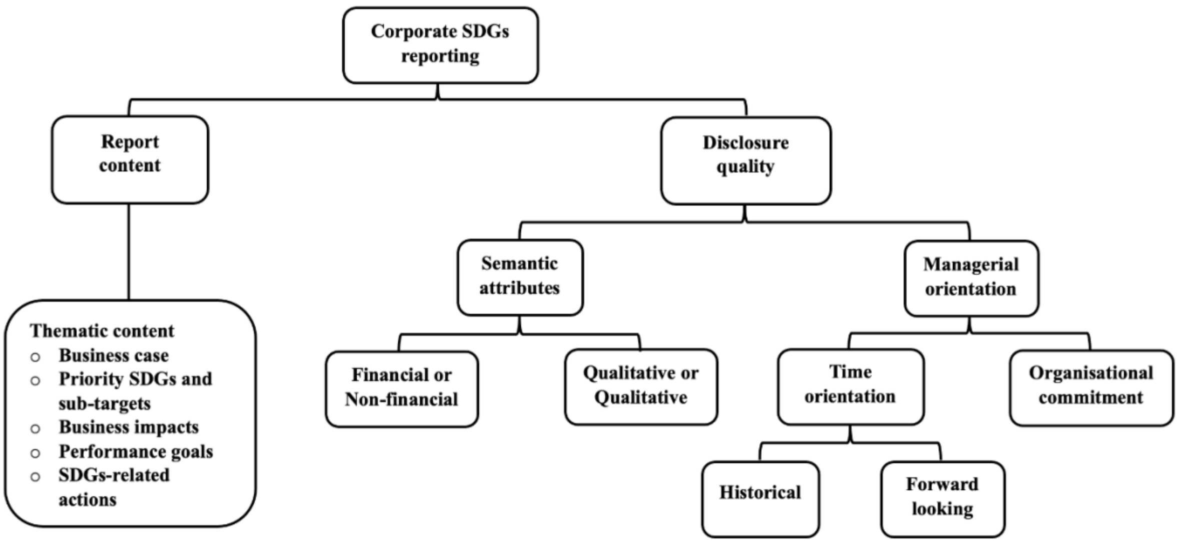
Overall, research on the scope and quality of SDGs reporting, while being performed by a handful of scholars, is growing and beginning to provide valuable insights into what is missing and what is needed to further this field. In light of the tremendous importance of the SDGs for the globe and the important role of the private sector in achieving these goals, a much richer body of literature is needed. In this sense, the substantive versus symbolic perspectives to legitimacy management reflect potential avenues for expanding this burgeoning stream of literature. In their study on the SDGs and accounting research, Bebbington and Unerman (2018, p. 10) call for further research to help understand where firms’ “SDG-related accounting initiatives lie on the continuum between pure rhetoric and meaningful action”. We address this call by examining the thematic content and quality of SDG-related disclosures, and the extent to which such disclosures facilitate impression management.

5.3.1 Disclosure framework: scope and quality of SDGs disclosure

Prior SDGs disclosure research has adopted several measures to capture the volume and variety of disclosures (Avrampou et al. 2019; Gunawan et al. 2020; Caputo et al. 2021; Gerged and Almontaser 2021; Bose and Khan 2022). However, the majority of these measurement approaches do not accurately capture the quality of SDGs reporting. In particular, while some studies employ a dummy variable (whether the SDGs are mentioned or otherwise) as an indication of reporting (e.g., García Meca and Martínez Ferrero, 2021; Kazemikhasragh *et al.*, 2021; Martínez-Ferrero and García-Meca, 2020; Rosati and Faria, 2019a), others consider the frequency of SDG mentions (word counts) (e.g., Ahmad and Buniamin, 2021; Gerged and Almontaser, 2021; van der Waal and Thijssens, 2020). Although these measures offer preliminary insights, they remain limited in assessing disclosure quality in accordance with recommended guidelines such as the *SDG Compass* and KPMG's *quality criteria for SDGs reporting* (KPMG, 2018). As Michelon *et al.* (2015) argue, while both the amount *('how much')* and themes *('what')* of disclosure are equally relevant for corporations and report users, they fail to consider other important dimensions that characterise the information disclosed.

According to Beretta and Bozzolan (2004, p. 266), disclosure quality depends on "both the quantity of the information disclosed and on the richness offered by additional information." They suggest that the mere disclosure of a large volume of information may not necessarily amount to high-quality reporting; rather, the value lies in the additional insights and contexts offered. Expanding on this perspective, Michelon *et al.* (2015) propose that the richness of sustainability disclosures could be understood as the degree to which the information enables users to understand the social and environmental impacts of corporate activities and infer the organisation's approach to sustainable development. In other words, the more comprehensive and insightful sustainability disclosures, the better-equipped stakeholders are to evaluate the organisation's commitment to sustainable development. In the context of the SDGs reporting, a good report should not only inform about an organisation's objectives but also detail the activities and strategies to achieve those objectives. This includes disclosures on material SDGs, significant impacts (both positive and negative) related to material SDGs, objectives for the material SDGs and progress made, and strategies and practices to manage impacts related to material SDGs. Thus, greater information diversity indicates the firm's awareness of its impact on a wider scale, which might be indicative of social responsibility, accountability and management's commitment to sustainable development (Beck et al. 2010). Based on the *SDG Compass*, KPMG (2018) proposed a nine-item quality framework for evaluating the substantiveness of SDG-related disclosures. The framework focuses on firms acknowledging the business impacts on the SDGs and making a business case for them (understanding), identifying priority SDGs and sub-targets with explanations on the methodology used (prioritisation), and reporting performance goals and indicators to measure progress (measurement). Along these lines, a substantive approach to SDGs reporting would entail adherence to all the elements of the framework (understanding, prioritisation, and measurement), along with the three sub-elements within each category. On the other hand, any disclosure that falls short of these criteria could be perceived as symbolic.

Figure 5-1. Disclosure framework for SDGs reporting



Source: Author's own creation

Given the methodological limitations in prior SDGs reporting research, we adapt Beretta and Bozzolan's (2004) framework for risk disclosure to SDGs reporting. The framework allows to "capture a great number of quantitative and qualitative features concerning a specific kind of voluntarily disclosed information" (Michelon et al. 2015, p. 65). It considers four distinct yet complementary dimensions of disclosure including the *content* of disclosures, the *economic sign* attributed to the expected impacts, the *type of measures* used to quantify and qualify the expected impacts, and the *outlook orientation and managerial approach*. Following Beretta and Bozzolan (2004) and Michelon *et al.* (2015), we propose a framework that considers three distinct yet complementary dimensions: the *content* of the information disclosed (what is disclosed), the *type of measures* used to quantify and qualify SDGs activities (how it is disclosed) and *managerial orientation* (the corporate approach to the SDGs). Given the apparent dearth in the scholarly literature regarding the *content* of corporate disclosures on the SDGs, we develop our framework relying on the *SDG Compass* and KPMG's *quality framework for SDGs reporting*. In our framework, the content of SDGs disclosures includes the following categories: disclosures on business case for the SDGs; priority SDGs; SDG targets; business impacts on priority SDGs; objectives, and specific business actions towards priority SDGs. Regarding the semantic attributes of the disclosures, we propose that SDG-related disclosures will be enriched by the way corporate actions are qualified and quantified (type of measures). Thus, we consider whether SDG-related initiatives are expressed quantitatively, qualitatively, in financial or non-financial terms (Beattie et al. 2004, 2008). Additionally, the managerial orientation captures the time orientation (forward-looking or historical) and organisational commitment (whether the SDGs are referenced in the Chairman's or CEO's statement). Figure 5–1 shows our disclosure framework adopted.

5.3.2 Typology of impression management strategies

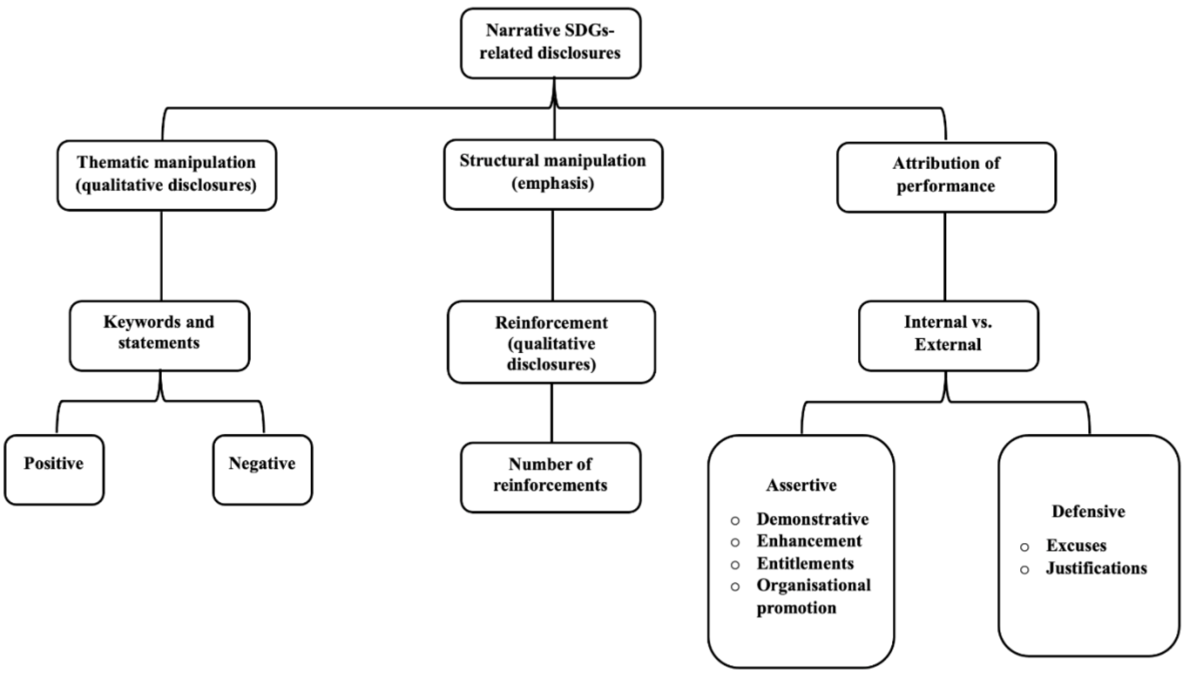
Several impression management strategies have been identified in the literature (Brennan et al. 2009; Cho et al. 2010; Dunne et al. 2021). For instance, Tedeschi and Melburg (1984) classified impression management strategies into two broad categories: assertive and defensive. Assertive strategies are used to proactively establish or reinforce particular attributes which are valued by an audience (Cooper and Slack 2015). On the other hand, defensive strategies are reactionary and often employed to minimise damage (Dunne et al. 2021) or respond to a predicament (Cooper and Slack 2015). On the whole, the literature suggests that firms' impression management strategies primarily focus on manipulating either the presentation of information (language, verbal tone, graphs, images, location and positioning) through bias and selectivity or the disclosure choices (thematic content, quantity, attribution) provided. Accordingly, these strategies introduce bias into the reporting process "through the use of ambiguity, responsibility avoidance, or both." (Cho et al. 2010, p. 432).

In their extensive review of impression management research, Merkl-Davis and Brennan (2007) classified organisational impression management strategies into two broad categories: concealment and attribution. According to Merkl-Davis and Brennan (2007), concealment strategies seek to either obfuscate negative outcomes or emphasise positive organisational outcomes. On the other hand, attributional strategies focus on framing performance to mitigate blame by attributing positive organisational outcomes to internal factors ("entitlements") and negative organisational outcomes to external factors ("excuses") (Merkl-Davis and Brennan 2007, p. 126). Generally speaking, managers can shape perceptions by using a range of strategies. Notable impression management strategies in narrative disclosures include using thematic manipulation to emphasise good news by including more positive than negative statements/keywords, reinforcements, and performance comparisons to convey a positive view of performance. further, impression management may manifest in narrative disclosures through presentational and visual techniques (Cooper and Slack 2015). Attributional strategies can also be used to signal competence and success by claiming responsibility for positive organisational outcomes and attributing negative organisational outcomes to external or uncontrollable factors (Merkl-Davis and Brennan 2007; Brennan et al. 2009; Hahn and Lülfs 2014).

Our research focusses on the impression management strategies that portray the company in a favourable light as an SDGs-committed organisation. This includes strategies that focus on demonstrating success, establishing positive identities, building positive reputational characteristics and promoting the organisation's competence and expertise in delivering the SDGs (Edgar et al. 2018). Further, this is accomplished by emphasising good news and obfuscating adverse information through persuasive language (Merkl-Davis and Brennan 2007; Cho et al. 2010). For this reason, we examine the use of thematic manipulation, structural manipulation, and attributional strategies in firms' SDG-related disclosures. Thematic manipulation involves management's use of positive and negative words/themes to present themselves and their performance in the best possible light (Merkl-Davis and Brennan

2007; Brennan et al. 2009). Following Brennan *et al.* (2009), we examine thematic manipulation based on analysis of positive/negative keywords and statements. On the other hand, structural manipulation may occur through repetitions, reinforcements, visual emphasis, and location or positioning of information. We focus on the use of reinforcements (qualifiers) to emphasise firms' SDG-related initiatives or lighten the effect of negative outcomes. Furthermore, we followed a three-stage abductive process proposed by Dunne *et al.* (2021) to classify attributional strategies into assertive and defensive strategies. First, we reviewed the different impression management strategies identified in previous impression management research (Tedeschi and Melburg 1984; Mohamed et al. 1999; Bansal and Kistruck 2006; Cooper and Slack 2015; Sandberg and Holmlund 2015). This ensured that our framework is comprehensive and considers all relevant strategies identified in the literature. This resulted in 16 different impression management strategies (see Appendix 2). Next, we include/exclude a strategy from our typology if we judge it as likely/unlikely to be deployed in reporting firms' SDG-related performance. Figure 5–2 summarises the analytical framework for impression management strategies in SDG-related disclosures, adapted from Merkl-Davis and Brennan (2007).

Figure 5-2. Typology of impression management strategies for SDGs reporting

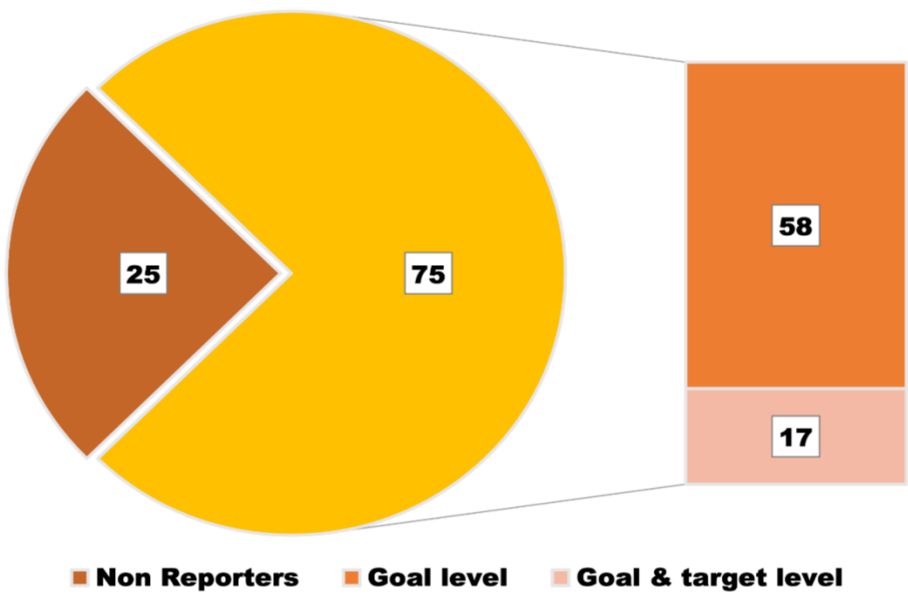


Source: Author's own creation

5.4 Research method

The analysis focuses on the FTSE 100 index, which comprises 100 prominent companies on the London Stock Exchange by market capitalisation. Our focus on listed companies in the UK is motivated by the dearth of research on corporate SDGs reporting originating from this region (Awuah *et al.*, 2023; Botchway and Bradley, 2023; Silva, 2021). Moreover, the UK is touted as highly proficient in the field of social and environmental reporting (Bebbington *et al*., 2012; Beck et al., 2010). Further, the literature suggests that large companies often face external pressures due to their visibility (Michelon et al. 2015), which can undermine their legitimacy and reputation. Consequently, such companies tend to provide sustainability performance disclosures, which may help address some of these external threats (Neu *et al*., 1998). To understand the scope and quality of the prevailing reporting practice, we considered the most recent reports available, as they offer a snapshot of the companies' performance (Kolk, 2008, Silva, 2021). Thus, we examined the sustainability performance reports (sustainability reports, corporate social responsibility reports, economic, social and governance reports, integrated reports, and annual reports) of FTSE 100 companies, published during the 2022 financial year (see Appendix 3).

Figure 5-3. Corporate reporting on the SDGs



Source: Author's own creation

5.4.1 Scope and quality of SDGs disclosures

To address the content and quality of SDGs reporting, we adopt a meaning-oriented multi-stage qualitative content analysis (Boiral 2013; Cooper and Slack 2015). First, a text search with the following terms "sustainable development goal*" or "SDG*" was performed to identify the sustainability performance reports that reference the SDGs. This process yielded 75 sustainability performance reports. For each report, we analysed the SDG-related disclosures and teased out from the reports those passages relevant to the firm's SDGs performance. We carefully separated SDG-specific disclosures from the reports by identifying explicit references to the 17 SDGs and their associated targets. This involved a detailed content analysis where we isolated statements, goals, and metrics directly linked to each SDG. This rigorous process was applied to all documents to ensure that our dataset focuses specifically on SDG-related information, distinguishing it from broader sustainability disclosures. We define the unit of analysis as single sentences because they are relatively more reliable than pages or paragraphs (Michelon et al. 2015). Next, we apply our disclosure framework to the narrative disclosures to capture the disclosures pertaining to firms' SDG-related initiatives. In this process, the disclosures on SDGs performance were analysed and coded into the disclosure framework based on the content it refers to (business case, priority SDGs, SDG targets, business impacts, performance objectives, and actions). For instance, we analyse relevant extracts to identify how firms conclude on which SDGs are material to their operations. This is crucial because although the SDGs are interrelated, not all 17 goals are equally relevant to every company. These disclosures improve transparency and help address the increasing concerns about firms engaging in SDGs washing or 'cherry-picking' (Heras-Saizarbitoria et al. 2021). Also, we coded the SDG-related disclosures according to the type of measures (qualitative, quantitative, financial, or non-financial) and managerial orientation (historical, forward-looking, organisational commitment). Managerial orientation assesses the commitment at the top management level (references to the SDGs in the chairman or CEO's report) and whether SDG-related disclosures are either historical or forward-looking.

5.4.2 Measuring impression management bias

We study three impression management strategies: thematic manipulation (statements and keywords); structural manipulation (emphasis by reinforcements);

and assertive/defensive strategies. We adopted manual meaning-oriented content analysis of the SDG-related narratives. Specifically, we analysed the disclosures on firms' specific actions or SDG-related initiatives to examine the presence of impression management. We chose both statements and keywords as the unit of analysis to allow for methodological triangulation (Brennan et al. 2009). We developed a list of keywords based on lists derived from previous studies (Abrahamson and Amir 1996; Henry 2008). The keyword analysis involved coding the number of times a keyword is mentioned within the SDG-related disclosures. Similar to Abrahamson and Park (1994) and Brennan *et al.* (2009) we included grammatical variations of words as separate keywords (e.g. "lead", "leader", "leading"). Furthermore, statements were classified as positive or negative based on the nature of the information disclosed. Following Rodrigue *et al.* (2015), statements were considered to be (i) positive when they reflected an activity undertaken by the firm with beneficial implications on the SDGs and (ii) negative when they reflected an activity undertaken by the firm with detrimental implications on the SDGs. Where a sentence refers to more than one issue that could be analysed separately, we treated the issue as a separate statement. As illustrated in example 1 in Table 9, three statements can be identified within the single sentence (two positive and one negative).

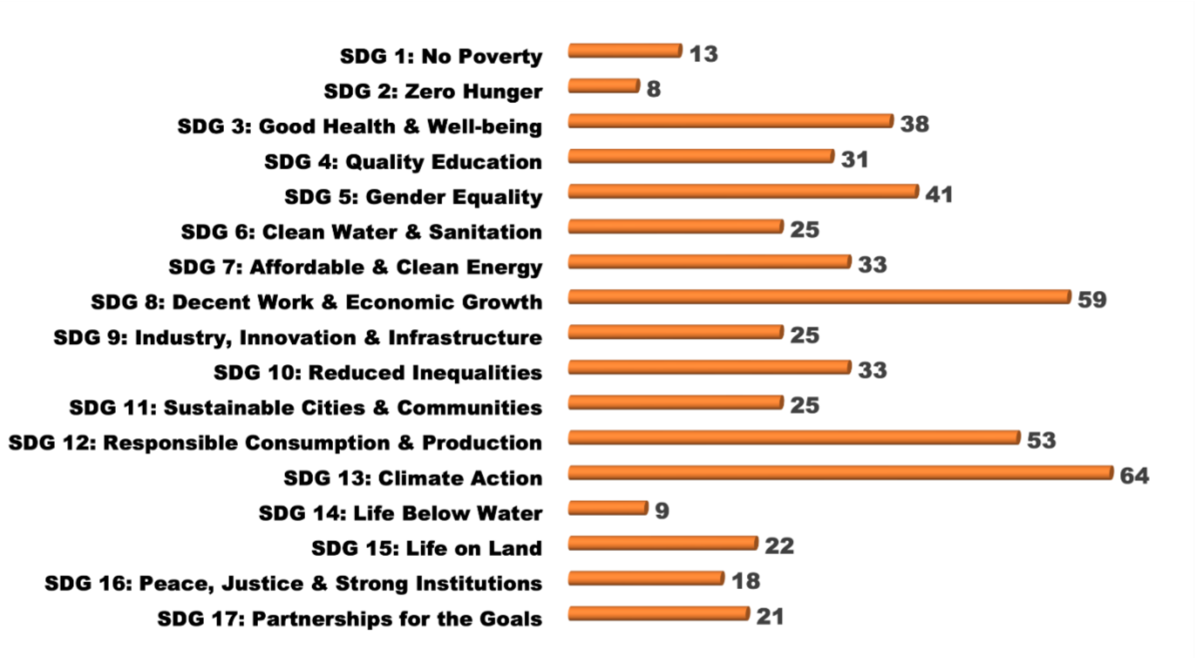
Moreover, emphasis is one of the subtle promotional techniques in narrative reporting (Henry 2008; Brennan et al. 2009). Emphasis as an impression management strategy is premised on the assumption that the reader pays attention to the disclosures emphasised more (Brennan *et al.*, 2009). Although several techniques can be used to emphasise narrative disclosures, we focus on the use of reinforcements to emphasise SDGs performance. According to Brennan *et al.* (2009, p. 814), "reinforcement occurs when emphasis is added to a particular keyword by use of a qualifier". Qualifiers or evaluative comments are less subtle promotional techniques used to create a "stronger argument for a particular conclusion than the nonreinforced version" (Maat 2007, p. 68). Example 3 illustrates the use of qualifiers to reinforce positive keywords. The words "substantially", "heavily" and "good" reinforce the keywords "reducing", "invest" and "progress" respectively. Similarly, in example 4 the use of the word "slightly" de-emphasises the negative keywords "down" and "below". Further, we calculated a composite impression management score based on the analysis of statements, keywords, and reinforcements. A weighting of 1.0 was assigned for each keyword or statement and a weighting of 0.5 for each keyword reinforced with a qualifier. Thus, the total qualitative composite impression management score ranges from a maximum of 2.5 to a minimum of 1.0 as shown in Table 10. These scores capture the extent of bias present in the SDG-related disclosures. We compute an impression management bias score as the difference between total composite scores for all positive keywords/statements less the total composite scores for all negative keywords/statements, divided by the total composite scores for all keywords/statements (Brennan et al. 2009). This measure of bias is consistent with the approach used in previous studies (Henry 2008; García Osma and Guillamón-Saorín 2011; Rodrigue et al. 2015). We provide an illustrative example in Table 10 showing that the SDG-related disclosures for Barratt Developments Plc are biased towards a positive/optimistic tone.

Finally, we code each statement as either assertive or defensive based on our impression management framework. Assertive statements attempt to explain an event in a way that maximises the implications for the actor, making them effective strategies for legitimacy management. This involves presenting corporate actions in a manner that is likely to be perceived by stakeholders as a success. Drawing on previous studies (Tedeschi and Melburg 1984; Hooghiemstra 2000; Cooper and Slack 2015), we focus on three assertive strategies: organisational promotion; enhancements; and entitlements. In contrast, defensive statements tend to address negative outcomes or repercussions by dissociation, providing excuses or justifications, and the use of apologies (Hooghiemstra 2000; Edgar et al. 2018). As shown in Figure 5–2, we classify SDG-related disclosures into six assertive and defensive strategies. We conducted several rounds of coding to enhance the coding reliability. The lead author completed the initial coding. The remaining three authors critically reviewed the coding and mapping procedures, examining back and forth the coding decisions made. This process involved a critical review of references within the initial codes to ascertain the alignment with the strategies in our framework.

Table 9. Examples of coding (thematic and structural manipulation)

Thematic manipulation	**Emphasis – Reinforcement of keywords**
Example 1: Analysis of statements *Despite the SSE's scope 1 emissions falling by 19% compared to 2020/21(Statement+1), and being the lowest since SSE's records began(Statement+2), SSE's scope 1 intensity increased slightly by 1% to 259gCO2e/kWh in 2021/22(Statement-1)* – SDG 13 (SSE plc 2022)	Example 3: Emphasis – Reinforcements of positive keywords *By leading the transition to a circular economy, we contribute to substantially(Reinforcement) reducing(Keyword) waste generation through prevention, recycling and reuse* – SDG 12 (DS Smith 2022)
Example 2: Analysis of Statements with multiple keywords and statements *This year we reduced(Keyword-1) GHG emissions by 5.3%(Statement+1), building on our 2021 achievement(Keyword+1) of a 4.0% reduction(Keyword-2) in absolute emissions(Statement+2). GHG emissions reductions(Keyword-3) were driven by continuous improvement(Keyword+2) projects(Statement+3) and an increase(Keyword+3) in the use of certificate-backed renewable gas at production sites in the United Kingdom and Canada(Statement+4)* – SDG 7, 12, 13 (Diageo 2022).	Example 4: Diminution of negative keywords *93.45% of packaging solutions sold as CoC certified in 2021. This was down(Keyword) slightly(Reinforcement) in 2020 and was driven predominantly by low paper availability* – SDG 12, 13, 15 (United Utilities 2022) *We invested £3.2 million in R&D this year, representing 4.8% of revenue. This was slightly(Reinforcement) below(Keyword) our target due to delays caused by the pandemic* – SDG 4, 12, 14, 15, 16 (Dechra Pharceuticals PLC 2022)

Figure 5-4. Corporate reporting on the specific SDGs



Source: Author’s own Creation

Table 10. Calculating qualitative composite impression management scores

Measure	Weighting
Thematic – keywords	1.0
Thematic – statements	1.0
Emphasis – Reinforcement (keywords only)	0.5
Maximum possible composite score per keyword/statement	2.5
Minimum possible composite score per keyword/statement	1.0

Calculating bias using qualitative disclosures (Barratt Development Plc, 2021)

Measure	**Positive**	**Negative**	**Positive score**	**Negative score**	**Total score**
Thematic – keywords	13	5	13 x 1	5 x 1	18
Thematic – statements	18	3	18 x 1	3 x 1	21
Emphasis – Reinforcement of keywords	3	1	3 x 0.5	1 x 0.5	2
Total composite score			**32.5**	**8.5**	**41**

Measure of bias

$32.5_{\text{positive score}} – 8.5_{\text{negative score}} = 24_{\text{Net positive score}}/41_{\text{Total score}} = +0.59$

The measure of bias is interpreted as follows: +1=completely positively biased; 0=no bias; – 1=completely negatively biased

5.5 Findings

This section presents our findings regarding the scope and quality of corporate SDGs disclosures among FTSE 100 companies based on the analyses of sustainability performance reports.

5.5.1 Scope and quality of SDGs reporting

Figure 5–3 reveals that a majority of FTSE 100 companies provide some level of information regarding the SDGs. Specifically, 75 companies include relevant disclosures about the SDGs in their sustainability performance reports. Notably, some companies have taken an additional step by explicitly labelling their reports as "sustainable development reports" (e.g., Mondi Group; Smurfit Kappa). Moreover, a few reporting companies issue separate reports solely dedicated to SDGs disclosures, complementing the information presented in their sustainability performance reports (e.g., GlaxoSmithKline; Kingfisher; Mondi Group; Polymetal). Consistent with previous studies (KPMG, 2022; Rosati and Faria, 2019a; Silva, 2021), our results underscore a notable reception of the SDGs among private sector entities, particularly listed companies in the UK. An in-depth analysis of the reports indicates that most companies recognise the significance of the UN 2030 Agenda and articulate their respective roles in advancing this overarching mission. Also, a majority of the reporting companies acknowledge the collaborative efforts among governments, the private sector, and civil societies in devising solutions to the global challenges espoused by the SDGs as evidenced in the following quote:

> *"The UN Sustainable Development Goals (SDGs) bring together governments, civil society and the private sector to create a sustainable future. We have mapped our Sustainability Agenda to the eight SDGs that are most relevant for our business and stakeholders"* (BAT 2021, p. 24)

Analysing the reporting companies by industry, the results in Table 11 show that companies operating in all industries other than technology have integrated the SDGs into their reporting practices. The leading sectors include industrials, consumer discretionary, and financials with 17, 15, and 13 companies respectively. The high proportion of the industrial and consumer discretionary sectors can be attributed to significant environmental and social impacts of companies operating in this sector (García Meca and Martínez Ferrero 2021; Lodhia et al. 2023) as well as the sector's representation among the FTSE 100 list. Overall, the results suggest that the SDGs have resonated well across all industries. Furthermore, we note that most of the reporting companies explicitly disclose their priority SDGs (see Figure 5–4). Consistent with prior studies (Silva 2021; Lodhia et al. 2023; Thammaraksa et al. 2024), the most prominent goals across these reporting companies are SDG 13 - Climate Action, SDG 8 - Decent Work and Economic Growth, SDG 12 - Responsible Consumption and Production, and SDG 5 - Gender Equality. Specifically, out of the 75 reports examined, 86% mention at the goal level that their operations contribute to SDG 13. Following closely is SDG 8 with 78% of the companies referencing this as a priority goal. Similarly, SDG 12 is a priority for 71% of the companies, while 55% articulate that their activities contribute towards achieving SDG 5. We posit that these findings are not surprising given that these SDGs align closely with the private sector's operational activities, regulatory requirements, as well as existing sustainability strategies of firms. Also, most sustainability reporting standards/frameworks offer prescriptive guidance on the topics covered by these SDGs, allowing companies to align their existing disclosures with the SDGs. Additionally, these goals address pertinent issues that have gained considerable attention in both scholarly discourse and print media, particularly due to their implications on the environment and society as a whole. The least prominent SDGs include SDG 2 – Zero Hunger, SDG 14 – Life Below Water, SDG 1 – No poverty, and SDG 16 – Peace, Justice and Strong Institutions. These goals are more oriented towards the public sector and thus seem disconnected from the core operations and sustainability practices of the private sector.

Table 11. Number of SDGs reporting firms by industry

Industry	**No. of companies**
Industrials	17
Consumer Discretionary	15
Financials	12
Consumer Staples	9
Basic Materials	6
Health Care	5
Utilities	4
Real Estate	3
Telecommunications	2
Energy	2
Total	**75**

Surprisingly, our analysis at the target level has revealed a disconcerting trend, as only a few companies disclose specific SDGs targets related to the material SDGs mentioned in their reports. Specifically, only 17 companies provide disclosure of selected SDG targets associated with the priority goals addressed in their reports. For instance, Next plc states its commitment to nine priority SDGs and further outlines some corporate actions aimed at contributing towards these goals. However, no explicit targets under each of these nine material SDGs are disclosed. Similarly, Glencore plc's report maps its actions and strategies to seven specific SDGs but does not address the targets it has committed to. Accordingly, only a handful of companies (4%) disclose clear business case for taking action on the SDGs including an analysis of the business impacts on the priority SDGs identified (see also, Lodhia *et al.*, 2023). The following extract illustrates how Mondi Group assesses its impacts on the SDGs.

> *"In determining the strategic relevance of each UN SDG, we consider both the positive and potentially negative impacts of our operations and factors – such as the significance of each goal and its sub-targets across our value chain. We evaluate the alignment of goals and sub-targets with our business activities, our ability to leverage our skills and resources to help drive change, and the importance of issues to our stakeholders"* (Mondi Group 2021, p. 22).

Additionally, the results reveal that only a limited number of companies disclose performance goals and objectives in relation to the priority SDGs and sub-targets. Concerning the firm-specific actions, the results show that 83% of reporting firms disclose SDG-related initiatives aimed at contributing to their priority SDGs. Although the majority of the reporting companies disclose SDG-related initiatives, only a few companies provide measurable indicators to track progress (see Table 12). Specifically, only 25% of the reporting companies disclose quantitative (financial or non-financial) information in support of actions towards specific SDGs. Thus, SDGs disclosures are largely qualitative, highlighting a challenge in evaluating corporate efforts towards the SDGs. Also, the disclosures are predominantly historical, with little or no comparative information to assess a company's SDG-related performance over time. This suggests that while most companies reference the SDGs in their sustainability performance reports, there is a notable disparity in the level of attention given to the quality of SDG-related disclosures. This is further exemplified in instances where some companies align multiple SDGs to some firm-specific initiatives, implying their contributions to these goals, yet fail to adequately demonstrate the explicit connections between these initiatives and the SDGs they claim to advance (e.g., Aviva; Dechra Pharmaceuticals Plc). Additionally, the absence of clear and measurable disclosures regarding specific actions on material SDGs suggests that corporate disclosures primarily revolve around SDGs rhetoric (Boiral 2016; Heras-Saizarbitoria et al. 2021). Also, the selectivity and heterogeneity evidenced in the reporting practice reinforce earlier assertions that companies have not necessarily transformed their operations as a result of the SDGs. Instead, a majority of organisations map existing sustainability strategies to multiple SDGs. Consistent with previous studies (van der Waal and Thijssens 2020; Heras-Saizarbitoria et al. 2021; Lodhia et al. 2023), this evidence points out that while companies are increasingly providing SDG-related disclosures, these companies are approaching SDGs reporting symbolically. The quality of information disclosed appears to be inconsistent with the quality criteria proposed by KPMG (2018) and the *SDG Compass*.

5.5.2 Impression management in corporate SDGs disclosures

5.5.2.1 Tone of SDG-related disclosures

Having examined the content and quality of SDG-related disclosures, we then considered the use of impression management in framing corporate contributions towards the SDGs. We analysed the qualitative information to examine the extent to which the disclosures are biased towards positive language. Table 13 presents the results in terms of the number of statements and keywords analysed. Consistent with prior studies (Cho et al. 2010; Rodrigue et al. 2015; Melloni and Stacchezzini 2016), the results reveal that corporate SDG-related actions are largely communicated using positive language. Accordingly, we find evidence of strong impression management bias with an impression management score of +0.532. The limited information on negative events is in sharp contrast with the wealth of information on firms' positive impacts on the SDGs. The results suggest SDG-related disclosures are more focused on emphasising good performance through the use of positive keywords and qualifiers, to present the company in a more favourable light (Brennan et al. 2009; Cho et al. 2010). This is strongly consistent with the view that companies are particularly keen to use their reporting discretion to portray a favourable impression of themselves to their stakeholders. As Aerts (1994, p. 337) underscores, impression management can be effectively executed through the use of performance explanations particularly in cases where the explanations of organisational events are "not simply the outcome of straightforward data analysis process". Given that the SDGs are less corporate focussed, with the business case for the SDGs not clearly established, it is not surprising that corporate contributions are expressed in a more optimistic and positive tone. In this case, one can argue that firms are more likely to use certain language characteristics to frame their SDG-related initiatives in an attempt to positively shape stakeholders' perceptions (Maat 2007; Cho et al. 2010; Edgar et al. 2021).

5.5.3 Assertive and defensive strategies

Table 14 presents the results of the impression management strategies present in corporate SDG-related disclosures. Similar to previous findings (Edgar et al. 2018; Li et al. 2023), our results reveal that defensive strategies are less prevalent (23%) in SDG-related disclosures as compared to assertive strategies (77%). Assertive strategies are more likely to be used to establish a particular identity or traits which are valued by the audience, such as support for the SDGs (Cooper and Slack 2015). The strong use of assertive strategies corroborates previous studies suggesting that SDG-related disclosures are purposely for improving firms' reputation and signalling commitment to the SDGs (Avrampou et al. 2019; Silva 2021; Lodhia et al. 2023; Thammaraksa et al. 2024). Such strategies are proactive, and mainly designed to explain an event in a way that maximises the implications for the actor, making them effective strategies for legitimacy management. Due to the adverse consequences that companies may suffer from acting unsustainably, managers tend to have strong incentives to deploy assertive strategies to maximise the desirability of their actions. This involves presenting corporate actions in a manner that is likely to be perceived by stakeholders as a success and socially desirable. However, relying solely on assertive strategies may undermine the credibility of the firm's performance. Thus, assertive strategies are balanced with some defensive strategies to produce a balanced and believable performance (Dunne et al. 2021). The primary defensive strategies are the use of excuses and justifications, accounting for 15% and 8% respectively.

Table 12. Quality of SDG-related disclosures

		Historical	Forward-looking
Quantitative	Financial	**8 Companies** As part of our commitment to invest $30 million over three years in racial equity programmes, in 2021 we invested $5.9 million and committed a further $3.4 million, taking our first-year total to $9.3 million (WPP 2021)	**12 Companies** We also renewed our commitment to support our community work and set a new target for 2020-2025 to donate over €24 million to social, environmental and community activities. This represents a 20% increase in our annual social investments so far (Smurfit Kappa 2021)
	Non-financial	**11 Companies** 5.5 million tonnes of carboard produced in 2021/22 that can be easily recycled contributing to target 12.5 (DS Smith, 2022)	**7 Companies** We are delighted and honoured to sponsor 831 young people (15 to 18 year-olds) through the Ivy House Award over 2021/22. We’ve committed to sponsor another 1,000 young people over 2023 and 2024 (Natwest Group plc 2021)
Qualitative		**43 Companies** Dechra made significant improvements during 2022, with all wood pallets and shippers used by the logistic centre in Denmark now being FSC certified. Most of our manufacturing sites and offices are also now using only FSC sourced paper combined with efforts to reduce paper usage by replacing with digital solutions (Dechra Pharceuticals PLC 2022)	**19 Companies** SEGRO is committed to championing low-carbon growth and has set a target to be net-zero carbon by 2030. We will reduce the embodied carbon in our new developments as well as reducing the carbon intensity of our properties through initiatives such as increasing our solar generation capacity (SEGRO 2021)

Table 13. Impression management bias based on qualitative disclosures

Measure	Positive	Negative	Total	Weighting	Positive score	Negative score	Total score
Thematic – statements	657	152	809	1.0	657	152	809
Thematic – keywords	435	182	619	1.0	435	184	617
Emphasis – reinforcement of keywords	56	15	71	0.5	28	7.5	71
Total composite score					**1120**	**341.5**	**1497**
Impression management Bias Score							
Positive composite score	1120						
Negative composite score	341.5						
Total composite score	1497						
Bias score	**+0.532**						

Assertive statements dominate firms' SDG-related disclosures through demonstrative, organisational promotion, entitlement, and enhancement strategies. Most reporting companies frame their contributions to the SDGs through detailed facts and numbers (both financial and non-financial) in relation to specific SDG-related initiatives. According to Bansal and Kistruck (2006), a demonstrative impression management strategy highlights firm actions through detailed accounts including specific examples, quantitative information and graphs. Such disclosures are predominantly factual rather than opinions and can be subjected to external verification (Bansal and Kistruck 2006; Sandberg and Holmlund 2015). This strategy is mostly used when the company has successfully acted in line with its priority SDGs and discloses factual or numerical information to describe its actions. Given the level of detailed information disclosed, some stakeholders may interpret this as a substantive commitment to the SDGs.

Furthermore, FTSE 100 companies also complement demonstrative statements with organisational promotion. Organisational promotion relates to instances where management presents their actions in an overly favourable manner, emphasising their superior qualities and abilities (Cooper and Slack 2015; Sandberg and Holmlund 2015; Ozsozgun Caliskan et al. 2021). By adopting this strategy, organisational managers seek to create a noble, competent and credible impression, thereby establishing a positive identity or reputation. Some reporting companies establish a positive identity for themselves through references to awards and recognitions to increase the attractiveness of their actions. For instance, Barratt Developments state that *"we were the first national housebuilder to set science-based targets and we are proud to be a signatory of the United Nations Race to Zero campaign*" – SDG 13 (Barratt Developments PLC 2021, p. 21). Similarly, organisational promotion is established through references that (in)directly project an image of how corporate activities benefit society. This is often achieved by reinforcing the reason for their very existence, illustrating the positive benefits of its products or services to society as echoed in the following quote:

> *"We play a significant role in protecting nations and keeping people safe. Our products and services enable governments to defend the lives and freedoms of people around the world, support international stability, and keep people safe, both at home and overseas"* – SDG 16 (BAE Systems plc 2021, p. 37)

Furthermore, SDGs performance disclosures tend to reflect good management through internal attribution and are consistent with entitlements and enhancements. Entitlements refer to instances where management attributes positive events or outcomes to their efforts (Dunne et al. 2021). As Hooghiemstra (2000, p. 61) argues, entitlements seek to emphasise the actor's responsibility for the positive outcome particularly when that "responsibility is either ambiguous or unclear." Evidence of entitlements is largely reflected in statements about specific internal actions relevant to positive contributions to firms' priority SDGs (Edgar et al. 2018). For example, Dechra Pharmaceuticals Plc (2022, p. 16) claims that "*we have also continued to make good progress on emission reduction initiatives such as lowering refrigerant gas losses by 91% at our site in Londrina, Brazil."* – SDG 13. Similarly, Compass Group asserts that "*we are on track for 100% certified sustainable palm oil from physical sources being used in our kitchens to prepare food by 2022"* – SDG 2.4 (Compass Group 2021, p. 48). These statements corroborate the notion that SDG-related disclosures are framed in a manner that maximises the desirable implications for management. On the other hand, enhancements seek to portray positive outcomes within the contexts of adverse external factors to increase the favourability of the outcome (Tedeschi and Melburg 1984; Aerts 2005). For instance, St James Place Plc used enhancement in framing its contributions within the context of the COVID-19 pandemic to maximise the favourability of its actions as evidenced in the quote below:

> *"The COVID-19 pandemic continued to present challenges in delivering face to face financial education, but we continued to provide virtual and home learning resources for primary and secondary school aged students, and developed a new offering for 5–7-year-olds"* – SDG 4.4 (St James Place 2021, p. 34)

In contrast, defensive statements are rarely used in relation to SDG-related disclosures. These consist of claims attributing negative outcomes to external factors such as industry conditions and the COVID-19 pandemic. Defensive strategies become apparent when a company falls short of its desired objectives and targets regarding its priority SDGs. In such instances, the company seeks to attribute its failure to some uncontrollable events. The aim is to portray an impression of infallibility, denying the assertion that its actions or inactions resulted in this failure. Defensive strategies that are commonly used in framing negative SDG-related outcomes include justifications and excuses. Justification is a defensive attributional strategy whereby an organisation implicitly accepts responsibility for an outcome, however, simultaneously reduces its negative consequences by emphasising other anticipated favourable outcomes (Aerts 2005). For instance, in the following quote, Severn Trent implicitly accepts its inability to take significant action on its Scope 3 efforts contextualising it as a sector-wide concern, however, proceeds to reduce the repercussions of this inaction by highlighting anticipated performance from 2025 onwards.

> *"Like many industries, we in the water sector have not been able to take significant action yet, but we are collecting data and gathering the support we need to begin planning, and we expect to begin seeing Scope 3 reduction solutions from at least 2025 onward"* – SDG 13 (Severn Trent 2022, p. 28)

Table 14. An overview of attributional strategies used in SDGs reporting

Attributional strategies	Files	References	
		No. of observations	%
Assertive strategies			
Demonstrative	20	72	34%
Enhancements	10	18	8%
Entitlements	13	22	10%
Organisational promotion	19	53	25%
Defensive strategies			
Excuses	12	32	15%
Justifications	7	17	8%
Total		**214**	**100%**

Similarly, excuses become apparent when a company falls short of its desired objectives and targets regarding its priority SDGs. In such instances, the company seeks to attribute its failure to some uncontrollable events. The aim is to portray an impression of infallibility, denying the assertion that its actions or inactions resulted in this failure. For instance, Diageo Plc attributes its negative performance in regard to the proportion of recycled content to slow global material recovery rates as a result of the COVID-19 pandemic as evidenced following quote: "*…global material recovery rates and recycling centres have not yet returned to their pre-Covid-19 operating levels, which has affected how much recycled content is available to our supply chain* (Diageo, 2022, p. 38). Furthermore, some reporting companies attribute negative SDGs performance to 'strong commercial growth' and 'adverse weather conditions'.

The direct attribution of adverse SDGs performance to the weather is illustrated in the following quote: *"SSE's renewable generation output (inc. pumped storage, biomass and constrained off wind in GB) fell by 7% between 2020/21 and 2021/22, from 10.2TWh to 9.5TWh, driven by unfavourable weather conditions over the summer"* – SDG 7 (SSE plc 2022, p. 34). These findings highlight firms' desire to manage stakeholder perceptions by excusing adverse impacts on the SDGs to external factors.

5.6 Discussion and conclusion

"Halfway to the deadline for the 2030 Agenda […], progress on more than 50 per cent of targets of the SDGs is weak and insufficient; on 30 per cent, it has stalled or gone into reverse" (UN, 2023, p. 2). Pressures continue to mount on businesses to embed the SDGs into their core strategies, business models and operational activities (Bebbington and Unerman 2020; Nicolò et al. 2024; Zampone et al. 2024). In response, there is a growing necessity for broader corporate reporting practices that allow stakeholders to evaluate firms' contributions to the SDGs. The management challenge for the SDGs is to design an information management approach which focuses on the identification of specific business impacts on the SDGs, which of these are relevant, how can they addressed and, how these impacts can be measured, analysed, and communicated to both internal and external stakeholders (Schaltegger and Burritt 2010). Conversely, management may attempt to signal concern for the SDGs by engaging in window dressing to cover up the lack of activity. Drawing on prior SDGs reporting and impression management literature, we examine whether and the extent to which firms use SDGs reporting to manage stakeholder perceptions regarding corporate contributions to the SDGs (impression management), or rather provide substantive information on firms' SDG-related initiatives.

Consistent with the critical perspective of corporate sustainability reporting, our results suggest that corporate reporting on the SDGs is largely symbolic, rather than substantive. Although companies appear to increasingly reference the SDGs in their sustainability performance reports, the disclosures relating to how these goals have been integrated within business operations tend to be superficial. Notably, the lack of disclosures regarding the business case for the SDGs, methodologies for selecting priority SDGs, specific SDGs sub-targets, and measurable indicators dilutes the value relevance of such disclosures. Furthermore, most companies map existing sustainability initiatives as contributions to the SDGs, often with no clear linkage with the core business activities. Along these lines, firms' SDG-related initiatives are often presented in a conciliatory manner (Silva 2021) rather than as a strategic transformation of internal practices and business processes. This absence of relevant information could be construed as an attempt to obscure the lack of meaningful contributions to the 2030 Agenda or to blur stakeholders' perception of the firm's engagement with the SDGs (Burritt and Schaltegger 2010; Schaltegger and Burritt 2010). In this sense, SDGs reporting could be considered as a means to signal concern by engaging in SDG-related rhetoric aimed at portraying an SDGs-committed corporation while masking other pertinent elements of the disclosure.

Further, our results support the notion that accounting narratives represent one of the means for impression management (Aerts 1994; Li et al. 2023). Consistent with previous studies, we demonstrate that companies respond to societal pressures by providing explanations to reinforce their claims for positive social identities. Through these explanations, managers may seek to convey an impression of a responsible actor, competent, and successful, leading to a higher legitimating effect (Higgins and Walker 2012; Hahn and Lülfs 2014). Conversely, managers may use accounting narratives to convey an impression of powerlessness through external attributions (excuses and justifications), thereby evading responsibility for unsustainable outcomes (Dunne et al. 2021). The increased social and political pressures on companies coupled with the demands for accountability create incentives for impression management.

Our results support our contention that the broad nature of the SDGs offers incentives for impression management through systematic biases (language and attributional behaviour) in firms' SDG-related disclosures. We find, first, that companies use more positive language in SDGs reporting to present a more favourable impression of their contributions. In particular, the language and tone of SDG-related disclosures strongly focus on emphasising positive outcomes that create a generally optimistic image of their commitment to the 2030 Agenda. By selectively biasing the tone of SDG-related disclosures, SDGs reporting can be a powerful instrument to supplement or reinforce an optimistic view of the firms' impacts on the SDGs. Nevertheless, the tendency to provide more explanations is evident for both positive and negative impacts on the

SDGs. Second, consistent with attributional framing behaviour (Aerts 2005), the results provide considerable evidence of self-serving attributional tendencies in framing corporate contributions to the SDGs. We find that companies were more likely to attribute positive impacts on the SDGs to internal efforts rather than to the environment. In this context, SDG-related disclosures are framed to portray the company as competent, ethical, innovative and credible, whose existence and operations benefit society. These explanations are intended to maximise the company's responsibility and (un)consciously, present the company as a responsible actor that can be trusted (Merkl-Davies and Brennan 2011; Dunne et al. 2021). However, such performance explanations can be perceived as symbolic representations when the company overly attributes positive outcomes to itself, culminating in a lower legitimating effect.

Given that audiences are rational and tend to be less convinced as assertive attributional claims increase, assertive strategies must be balanced with defensive performance explanations to produce a more credible and rounded performance (Aerts 2005; Dunne et al. 2021). In this context, defensive impression management strategies complement the assertive opportunistic attributional behaviour. Overall, defensive attributional tendencies (excuses and justifications) are less prominent in SDG-related disclosures as compared to assertive attributional tendencies. Defensive attributional strategies are largely used to convey an impression of powerlessness through disclosures that either frame an adverse outcome as an industry-wide issue or attribute the event to external factors. Although companies may acknowledge the negative behaviour and express a commitment to act sustainably, they also tend to suggest that they had no other choice due to these factors. To convey this impression, companies may use a combination of excuses and justifications. However, it is crucial to emphasise that the success of this impression depends on the perception of its stakeholders. Excuses and justifications are only effective in supporting this impression if stakeholder pressures and scrutiny are directed towards other companies rather than the reporting entity (Hahn and Lülfs 2014; Sandberg and Holmlund 2015). On the contrary, if stakeholders are aware of the company's responsibility for the unsustainable behaviour, then the impression of powerlessness that it seeks to convey might fail to generate the intended legitimacy (Ashforth and Gibbs 1990; Diouf and Boiral 2017). Overall, our results suggest an active framing of

SDG-related disclosures in a self-serving manner to influence key stakeholders to believe that the company is committed to the 2030 Agenda. Our results align with previous studies that found widespread tendencies of attributional framing in discretionary disclosures (Hooghiemstra 2000; Aerts 2005; Merkl-Davis and Brennan 2007; Cho et al. 2010; Edgar et al. 2018; Li et al. 2023).

5.6.1 Implications and suggestions for future research

Our study makes several important contributions to the literature. First, we contribute to the critical perspective on SDGs reporting by presenting new evidence that, consistent with existing sustainability practices, SDGs reporting is prone to managerial capture (Michelon et al. 2015). We extend the literature by focussing on an underdeveloped research area – the thematic content and quality of SDG-related disclosures. In doing so, we address the call in the literature for research on where corporate "specific SDG-related accounting initiatives lie on the continuum between pure rhetoric and meaningful action" (Bebbington and Unerman 2018, p. 10). Second, we develop and apply a comprehensive disclosure framework to capture the thematic content and quality of SDG-related disclosures. Given that corporate SDG-related disclosures are predominantly qualitative, it is imperative to consider other semantic elements and the meaning of information disclosed to provide a holistic understanding of corporate disclosure behaviour. While previous studies have examined the scope of SDGs reporting, much of the prevailing studies primarily focus on whether companies reference the SDGs through word counts as an indication of reporting (Rosati and Faria 2019a; García Meca and Martínez Ferrero 2021; Gerged and Almontaser 2021). Following prior narrative disclosure research (Beretta and Bozzolan 2004; Hasseldine et al. 2005; Michelon et al. 2015), we contend that the exclusive focus on the disclosure quantity is not a satisfactory proxy for the quality of disclosures, thereby presenting an incomplete picture of firms' SDG-related disclosure behaviour.

Although our results remain largely consistent with previous studies, we enrich the literature by highlighting other critical elements of SDG-related disclosures. Third, we extend the impression management literature by examining two less-researched impression management strategies: thematic manipulation and structural manipulation (emphasis by reinforcing disclosures) (Brennan et al. 2009). We contribute new insights on impression management in narrative disclosures and provide empirical support for Brennan *et al.'s* (2009) methodological approach. Although impression management research in sustainability reporting has garnered considerable attention in recent years, a majority of the studies focus on attributional and neutralisation strategies (e.g., Boiral, 2016; Hooghiemstra, 2000; Sandberg and Holmlund, 2015; Talbot and Boiral, 2018). Our study complements this stream of research by examining self-serving bias manifested through linguistic and attributional strategies aimed at managing stakeholder perceptions of corporate contributions to the 2030 Agenda. Finally, our study contributes to the methodological debate on the measurement of SDG-related disclosures by developing a disclosure framework using the *SDG Compass* (Global Reporting Initiative, UN Global Compact and World Business Council for Sustainable Development, 2016) and KPMG's *quality criteria for SDGs reporting* (KPMG, 2018).

Our study also offers valuable practical implications. From a market perspective, investors and other stakeholders who consider SDG-related disclosures in their decision-making processes should be aware of various impression management strategies embedded in these disclosures. Given that the SDGs are less corporate-focused and reporting remains largely voluntary, many companies resort to boilerplate disclosures aimed at managing stakeholders' perceptions rather than providing incremental, value-relevant information. This practice poses significant challenges for investors and other stakeholders in accurately evaluating the substantive nature of firms' initiatives and contributions to the SDGs. From a management perspective, our study could be of interest to managers concerned about effectively communicating their contributions to the SDGs. The study highlights deficiencies in the current approach to SDGs reporting, indicating a lack of value-enhancing attributes that could increase the relevance of these disclosures to stakeholders. The proposed disclosure framework for SDGs reporting could assist managers in enhancing the thematic content and quality of SDGs disclosures, thereby improving the substantiveness of SDG-related disclosures. In light of these findings, there are important policy implications regarding the possible approaches for SDGs reporting, suggesting a potential need for regulatory action. The results demonstrate that SDG-related disclosures, like other discretionary accounting narratives, may be susceptible to impression management.

The mounting evidence of a symbolic approach to SDGs (e.g., Avrampou *et al.*, 2019; Heras-Saizarbitoria *et al.*, 2021; Lodhia *et al.*, 2023; Silva, 2021) underscores the necessity for policymakers to consider a standardised reporting framework to harmonise firms' SDGs disclosure behaviour. The absence of clear and mandatory reporting guidelines creates incentives and motives for managerial capture, resulting in a superficial approach to SDGs reporting. Despite initiatives such as the *SDG Compass* and KPMG's *quality criteria for SDGs reporting*, significant variations persist in aspects such as the SDGs prioritisation process, articulating the business case for priority SDGs, and defining specific targets, performance, and actions to measure firms' contributions. Consistent with prior studies (Lodhia et al. 2023; Thammaraksa et al. 2024) we argue that developing a standardised reporting framework is an essential requirement for substantive SDGs reporting. While sustainability reporting is increasingly becoming mandatory in most jurisdictions, challenges remain regarding the alignment of various sustainability standards with the SDGs and how businesses should embed and disclose their SDG-related performance. This underscores the need for a systematic process to identify the linkages between the SDGs and existing sustainability reporting standards/frameworks, enabling companies to meaningfully account for their SDG-related initiatives. In this sense, a standardised reporting framework is expected to enhance reporting quality and foster a substantive approach to SDGs reporting.

Finally, our results should be interpreted considering the choices made regarding the sample and the subjective analysis and interpretation of the data. The conclusions are drawn from a sample of 75 sustainability performance reports issued within one year from one jurisdiction. Therefore, we do not seek to generalise the degree to which our findings may be evident in different research contexts. Nevertheless, we believe that our study extends the literature in this field. In light of these limitations, we advocate for more corporate SDGs reporting research. The literature highlights the growing importance of research in this field (see. Bebbington and Unerman, 2020; Pizzi *et al.*, 2020; Rosati and Faria, 2019a). The perception of stakeholders regarding the credibility of SDGs disclosures and the extent to which disclosures on SDGs performance influence the perceptions of stakeholders remain unanswered. Another promising area would be a longitudinal study of SDGs reporting and impression management. Such studies would provide valuable insight into how firms' SDGs disclosure practices have developed over the period. Future research may also explore the effectiveness of standardisation in mitigating impression management in narrative disclosures by comparing SDG-related disclosures with non-SDG sustainability disclosures. Therefore, future research could extend this literature by addressing these unanswered questions.

Chapter 6

CEO narcissism, power and corporate SDGs reporting: An empirical analysis[5]

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6.1 Introduction

In recent years, the discourse around sustainable development has garnered significant attention and political authority following the publication of the Brundtland Report in 1987 (United Nations World Commission on Environment and Development, 1987). On a global scale, several public policy-making institutions have developed various policy initiatives aimed at promoting sustainable development (Caprani 2016; Bebbington and Unerman 2018). An example of such initiatives is the United Nations' (UN) 2030 Agenda for Sustainable Development introduced in September 2015 (UN, 2015). This comprehensive agenda outlines 17 interconnected Sustainable Development Goals along with corresponding targets and indicators, aimed at addressing diverse global challenges ranging from poverty reduction to climate change mitigation. As highlighted by Zampone et al. (2024), the SDGs signify a breakthrough moment for national governments and corporations, providing a platform to confront critical sustainability challenges, and creating a better society for present and future generations. Given the substantial investments required for the achievement of these goals, there have been vigorous political and social pressures on corporations to spearhead this transformation by integrating the SDGs into their strategies and operations (Bebbington and Unerman 2020; Awuah et al. 2024). As corporations endeavour to align their strategies and operations with the SDGs, SDGs reporting has become increasingly important for corporations as a mechanism to demonstrate business contributions to the SDGs. Along these lines, corporate SDGs reporting has attracted considerable interest among researchers and practitioners (Bebbington & Unerman, 2018; KPMG, 2022; Pizzi, Caputo, Corvino, & Venturelli, 2020).

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 SDGs, and the instrumental role of SDGs engagement on firm performance. Our motivation to investigate these issues is prompted by a notable gap in the literature regarding the intrinsic drivers and value relevance of SDG-related disclosures. Recently, corporate SDGs reporting research has explored why companies differ in their reporting on the SDGs. This stream of literature suggests that corporate SDGs reporting is not only a function of organisational factors (e.g., Pizzi, Rosati, & Venturelli, 2021; Rosati & Faria, 2019b) but also depends on institutional and cultural factors (Rosati and Faria 2019a;

García-Sánchez, Rodríguez-Ariza, et al. 2020; Bose and Khan 2022; Pizzi et al. 2022). Notwithstanding these insightful studies, little attention has been devoted to the role of corporate executives (e.g., CEOs) in corporate SDGs reporting. In particular, a crucial factor that has been overlooked is the role of CEOs in firms' SDG-related initiatives. This dearth of research is noteworthy, considering the theoretical arguments of the upper echelons perspective highlighting the consequences of top executives' characteristics on corporate strategic outcomes (Hambrick and Mason 1984; Carpenter et al. 2004; Hambrick 2007). While a large body of literature exists on the drivers of corporate SDGs reporting, the exclusive focus on external and organisational factors presents, at best, an incomplete understanding of the underlying motivations for corporate SDGs reporting (Al-Shammari, Rasheed, & Al-Shammari, 2019; Awuah et al., 2023).

Specifically, we draw on the notions of CEO narcissism and power as potential explanations for corporate SDGs reporting. These attributes are relevant in the context of the SDGs, given the mounting evidence indicating that SDGs reporting is largely symbolic (Avrampou et al. 2019; García Meca and Martínez Ferrero 2021; Thammaraksa et al. 2024). The SDGs are intergovernmental commitments to stimulate action in critical areas for humanity and the planet (Bebbington & Unerman, 2018; UN, 2015). In this regard, the private sector's engagement is largely voluntary, although 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' (Kernberg 1975; Aabo and Eriksen 2018) through SDG-related disclosures. Given the significant publicity and stakeholder interest in the SDGs, we expect CEOs with high narcissistic tendencies to disclose more SDG-related information as a way to fulfil their need for attention and praise. Moreover, 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 considering the desirability of such practices by society (Al-Shammari et al., 2019; Patrenko, Aime, Ridge, & Hill, 2016). These benefits may include positive praise from stakeholders, attention in the media, and other image-reinforcing activities. Despite the potential for managers to use SDGs reporting as a tool for image-reinforcing and attention-seeking purposes, few studies (except for Garrido-Ruso, Aibar-Guzmán, & Suárez-Fernández, 2023) have examined CEO narcissism as a possible explanation for corporate SDGs reporting. In line with this thinking, we argue that narcissistic CEOs may leverage SDGs reporting as a tool to generate a narcissistic supply.

Furthermore, corporate SDGs reporting, in its current form, is largely subjective, lacking any strict reporting guidelines. Thus, businesses have control over the type and extent of information disclosed. In this regard, CEO power is an important factor to consider because it gives a CEO the freedom to mobilise resources to direct strategic actions as well as determine salient actors and pressures to prioritise (Finkelstein 1992; Walls and Berrone 2017). Along these lines, previous studies suggest that CEO power affects a firm's sustainability actions and disclosure practices (Jiraporn and Chintrakarn 2013; Muttakin et al. 2018; Chu et al. 2023). According to Walls and Berrone (2017), CEOs are inclined to pursue a particular strategy when they possess a personal understanding and a vested interest in the matter, along with the requisite expertise to effectively address it. This allows CEOs to trivialise issues which in their view may be detrimental to their short-term interests. Also, CEOs can exert greater influence on voluntary sustainability-related reporting (Garcia-Sanchez et al. 2021). This is more pronounced in firms led by powerful CEOs, as CEO power reduces the monitoring capacity of boards, particularly on matters related to voluntary disclosure. CEO power provides CEOs with recognition as the main executives with managerial dominance to control agendas (Byun and Al-Shammari 2021). As Muttakin et al. (2018) stress, the board's ability to exercise independent monitoring and control may be more critical in compliance-oriented reporting than voluntary reporting such as SDGs reporting. We assert that these arguments also hold for the SDGs and related disclosures. Given that the SDGs are less corporate-focused with the 'business case' for companies not clearly established, powerful CEOs may not sanction SDG-related initiatives in the interest of protecting short-term shareholder demands. Also, powerful CEOs may trivialise SDG-related disclosures because the incremental personal gains associated with these actions are not material (Jiraporn and Chintrakarn 2013). In this regard, firms with powerful CEOs may afford to place less emphasis on SDGs reporting.

Additionally, we address concerns about the strategic implications of the SDGs for corporations. Specifically, we investigate whether engagement with the SDGs generates value-enhancing effects for businesses. One of the foremost concerns in the sustainability literature relates to the instrumental role of corporate sustainability practices on firm performance (García Meca and Martínez Ferrero 2021; Nguyen et al. 2021; Sandberg et al. 2023). In the context of the SDGs, several scholars maintain that the SDGs offer new opportunities for businesses, such that a strategic alignment of the SDGs with business operations could yield tangible benefits for firms. Consequently, businesses have been urged to rethink their value-creation processes in an attempt to integrate sustainable development concerns into corporate strategies and operations (Dyllick and 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 and Martínez Ferrero 2021). Considering the intricate interplay between sustainability practices and corporate performance, as underscored by the mixed findings in existing literature, the question remains whether SDGs engagement may generate any tangible economic benefits for reporting firms. This is particularly important as it provides further evidence relating to the substantive or symbolic role of corporate SDGs reporting (Ashforth and Gibbs, 1990). Although 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' SDG-related initiatives. Thus, the potential exploitation of SDGs by narcissistic executives to further their interests raises significant concerns regarding the substantive role of SDGs reporting. Along these lines, the central question remains: 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' SDG-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 et al. 2020). Lastly, our study contributes to the current debate on the instrumental role of corporate SDG-related initiatives and disclosures (García Meca and Martínez Ferrero 2021; Awuah et al. 2024). 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 et al. 2019; García Meca and 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.

6.2 Theoretical framework and literature review

6.2.1 Theoretical perspectives

This paper is grounded in the upper echelons (Hambrick and Mason 1984; Hambrick 2007) and agency perspectives (Jensen and Meckling 1976). The upper echelons theory states that corporate executives have bounded rationality and are susceptible to cognitive biases (Hambrick 2007; Arena et al. 2018). 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 (Carpenter et al. 2004; Arena et al. 2018). 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 (Gerstner et al. 2013; Arena et al. 2018; Buchholz et al. 2020; Aibar-Guzmán and Frías-Aceituno 2021).

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 (Hutzschenreuter et al. 2012; Dabbebi et al. 2022). 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 (Hambrick 2007; Arena et al. 2018). For instance, Yim (2013) shows that a CEO's age predicts a firm's acquisition activity. Hirshleifer et al. (2012) find that firms with overconfident CEOs invest more in innovation and achieve greater innovation success rates. 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. 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 and 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 et al. 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 (Sheikh 2018; Harper and Sun 2019). 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 et al. 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 (Walls and Berrone 2017; Muttakin et al. 2018). 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.

6.2.2 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 and Unerman 2018). As Weerasinghe, Samudrage, and Gunarathne (2023) point out, the investment requirements of SDG-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, 2023; 2022). 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). 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.

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, et al. 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 and van Tulder 2018), culture (Pizzi et al. 2022), imitation and competitive pressures (Zampone et al. 2023), national sustainability regulation (Bose and Khan 2022), Global Reporting Initiative (GRI) compliance and external assurance (Subramaniam et al. 2023). In addition, firm-specific antecedents include corporate governance, relative size, intangible assets, board attributes, and institutional ownership (Rosati and Faria 2019b; García-Sánchez et al. 2022). 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 (Bebbington and Unerman 2018; Avrampou et al. 2019; 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 and Berrone 2017). Given the seeming consensus that executives' cognitive biases and preferences affect how they interpret business situations (Hambrick and Mason 1984; Carpenter et al. 2004), 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 (Tang et al. 2018; Sheikh 2019; Deore et al. 2023).

6.3 Hypothesis development

6.3.1 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 and Hambrick 2011; Gerstner et al. 2013; Reina et al. 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 (Emmons 1987; Bogart et al. 2004). 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 et al. 2004; Chatterjee and Hambrick 2007). Accordingly, various psychology scholars have developed psychometric scales to measure narcissism (Raskin and Hall 1979; Emmons 1987).

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 (John and Robins 1994; Campbell et al. 2004; Campbell and Campbell 2009). 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 and 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 and Al-Shammari 2021), adoption of technological discontinuities (Gerstner et al. 2013), earnings management (Buchholz et al. 2020), and financial performance (Olsen et al. 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 and 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 et al. 2024). Achieving the 2030 Agenda requires bold, ambitious SDG-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. 2024; 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 SDG-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.

6.3.2 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 (Donaldson and Davis 1991; Walls and Berrone 2017; Byun and Al-Shammari 2021). 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 (Pavlik et al. 1993; Kashmiri and Brower 2016). 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 et al. 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 (Jiraporn and Chintrakarn 2013; Al-Shaer et al. 2023). First, entrenched CEOs may perceive any additional personal gains through SDG-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 et al. 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 (Muttakin et al. 2018; Chu et al. 2023). 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 (Muttakin et al. 2018; Garcia-Sanchez et al. 2021). 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.

6.3.3 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 (McCarthy et al. 2017; Abatecola and Cristofaro 2020; Chu et al. 2023). 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 and 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 and Lee 2016; Marquez-Illescas et al. 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.

6.3.4 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 (Yu et al. 2018; Qureshi et al. 2020; Eliwa et al. 2021; Okafor et al. 2021; Zhou et al. 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 et al. 2012, 2015). 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 and Lülfs 2014; Talbot and 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 SDG-related actions, enabling stakeholders to appreciate firms' contributions to the SDGs. According to Accenture and UN Global Compact (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 (United Nations Global Compact and Accenture Strategy 2019; Nguyen et al. 2021; Okafor et al. 2021; Thammaraksa et al. 2024).

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 and Schaltegger 2017; Schaltegger et al. 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 and Gibbs 1990), we maintain that firms that strategically disclose SDG-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.

6.4 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 (Silva 2021; Botchway and Bradley 2023; Awuah et al. 2024) as well as the region's proficiency in the field of social and environmental accounting (Beck et al. 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 (Olsen et al. 2014; Marquez-Illescas et al. 2019). 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 6–1 shows the conceptual model.

6.4.1 Variable measurement

6.4.1.1 CEO narcissism

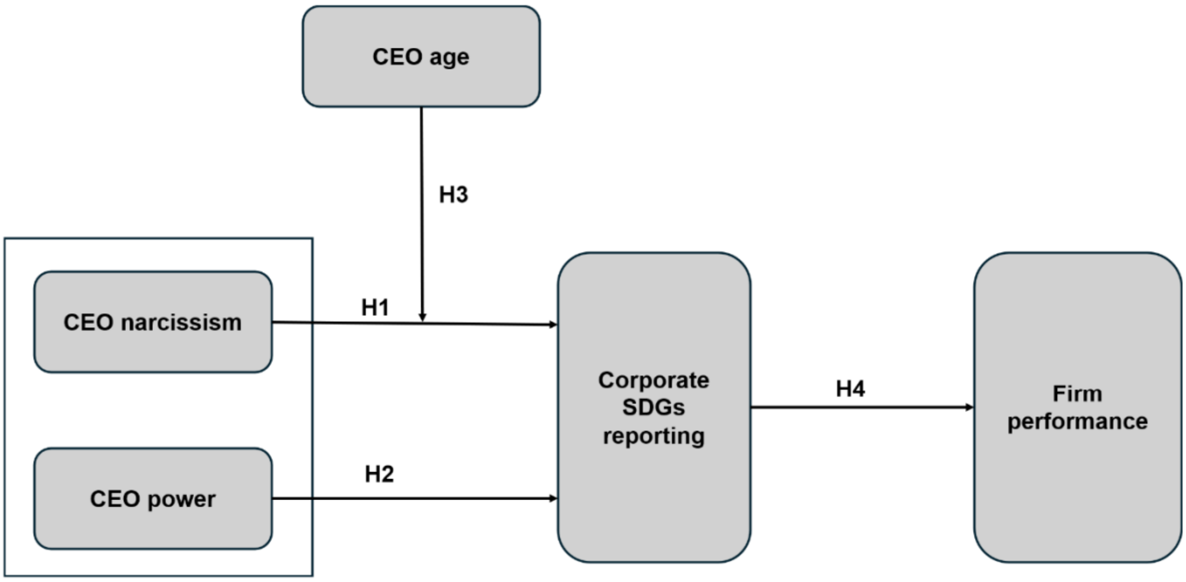
Several instruments have been proposed to measure narcissism (Raskin and Hall 1979; Chatterjee and Hambrick 2007; Patrenko et al. 2016). Prominent among these measures is the Narcissistic Personality Inventory (NPI) proposed by Raskin and Hall (1979). However, given the challenges in getting top executives to complete the NPI, prior management scholars have developed several unobtrusive measures to capture CEO's narcissistic tendencies (Chatterjee and 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 15. 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 et al. 2019; Marquez-Illescas et al. 2019).

6.4.1.2 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 (Muttakin et al. 2018; Byun and Al-Shammari 2021; Deore et al. 2023). 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.

Figure 6-1: Conceptual framework



Source: Author's own creation

6.4.1.3 SDGs reporting score

The literature on corporate SDGs reporting uses different measures to capture the extent of SDGs disclosure. While a strand of scholars (Rosati and Faria 2019a; García Meca and Martínez Ferrero 2021; Krasodomska et al. 2023) use a dichotomous variable (whether the SDGs are mentioned or otherwise) as evidence of reporting, others develop a disclosure index using the *SDG Compass* (Pizzi et al. 2021; Bose and Khan 2022) or the *quality criteria for SDGs reporting* developed by KPMG (2018) (Lodhia et al. 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, and World Business Council for Sustainable Development, 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 SDG-related initiatives, time orientation, and future plans. These dimensions collectively measure both the thematic content (scope) and quality of SDG-related disclosures (Beattie et al. 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 et al. 2008; Hooks and 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 16. 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.

6.4.1.4 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 (Patrenko et al. 2016; Yu et al. 2018; García Meca and Martínez Ferrero 2021; Sandberg et al. 2023).

6.4.1.5 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 and Al-Shammari 2021; Chu et al. 2023), we standardise our measure for CEO age by creating a dummy variable (1 if the CEO 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.

Table 15. 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.

6.4.1.6 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 (Ntim 2016; Nguyen et al. 2021). We measure leverage as the ratio of long-term debt to total equity (Martínez-Ferrero and García-Meca 2020; García Meca and Martínez Ferrero 2021). Firm risk is the firm’s beta (Yang et al. 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 17.

Table 16. 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 SDG-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 SDG-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

6.4.2 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 (Liang and Zeger 1986; Ballinger 2004). 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:

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

6.5 Results

6.5.1 Descriptive statistics

The descriptive statistics and correlations are provided in Table 18. 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.

6.5.2 Main results

We present the results for our hypotheses in Table 19. The first model in Table 19 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 ($\beta = 0.049$, $p = .025$). Concerning Hypothesis 2, the results in model 2 show that CEO power is significant and negatively influences SDGs reporting ($\beta = -0.171$, $p = .001$). 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 ($\beta = -0.074$, $p = .020$). 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 ($\beta = 0.012$, $p = .499$), thus Hypothesis 4 is not supported.

6.5.3 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 et al. 2011; Jiraporn and 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 20 (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.

Consistent with prior CEO narcissism literature (Chatterjee and Hambrick 2007; Patrenko et al. 2016; Dabbebi et al. 2022), 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 21. 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.

Table 17. Variable 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 18. 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 19. Results of GEE analyses

Models	1	2	3	4
Variables	**DV: SRS**	**DV: SRS**	**DV: SRS**	**DV: ROA**
Independent variables				
CEO_narcissism		0.049**	0.081***	
		(0.025)	(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***
	(0.056)	(0.027)	(0.015)	(0.005)
BOD_size	0.089	0.115	0.107	-0.016
	(0.455)	(0.293)	(0.305)	(0.437)
SUS_com	0.167***	0.131**	0.143**	-0.047
	(0.003)	(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
	(0.436)	(0.326)	(0.279)	(0.787)
CAPEX	0.210***	0.203***	0.206***	-0.029
	(0.000)	(0.000)	(0.000)	(0.110)
Fsize	0.002	0.003	0.002	0.003
	(0.802)	(0.645)	(0.777)	(0.435)
ROA_lag				0.270***
				(0.000)
Constant	-0.442	-0.387	-0.367	0.045
	(0.203)	(0.217)	(0.216)	(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***	277.03***	248.07***	203.49***
	(0.000)	(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.

6.6 Discussion and implications

6.6.1 Summary of findings

Drawing on insights from both upper echelons and agency perspectives, we argue that both CEO attributes are influential on corporate SDG-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 SDG-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 and 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 and 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 (Marquez-Illescas et al. 2019; Byun and Al-Shammari 2021), 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 and Meckling 1976), we find that CEO power has a negative impact on corporate reporting on the SDGs. Our findings are consistent with previous studies (Harper and Sun 2019; Sheikh 2019; Garcia-Sanchez et al. 2021), 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 (Scheyvens et al. 2016; Bebbington and Unerman 2018), powerful CEOs may perceive any incremental personal benefits from SDG-related investments as trivial compared to the potential gains from alternative investments. Accordingly, powerful CEOs may restrict the board’s potential to invest in SDG-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 SDG-related rhetoric (Bebbington and Unerman 2018). Consistent with the symbolic perspective of sustainability management (Michelon et al. 2015; Avrampou et al. 2019; van der Waal and Thijssens 2020), our findings suggest that corporate SDG-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 SDG-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 (Jensen and Meckling 1976; Chatterjee and Hambrick 2007).

6.6.2 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 (Rosati and Faria 2019a, 2019b;

Pizzi et al. 2021; Bose and Khan 2022). 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 SDG-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 and 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.

Table 20. Robustness check

Models	5	6	7
Variables	**DV: SRS**	**DV: SRS**	**DV: Tobin's Q**
Independent variables			
CEO_narcissism	0.123**	0.165**	
	(0.029)	(0.021)	
CEO_power	-0.101**	-0.096*	
	(0.047)	(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 21. Robustness check with the endogeneity control

Models	8	9
Variables	**DV: SRS**	**DV: SRS**
Independent variables		
CEO_narcissism	0.048**	0.80***
	(0.029)	(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.

6.6.3 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 and 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 SDG-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 position 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 SDGs 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 SDG-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 SDG-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.

6.7 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 and 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.

Chapter 7

Summary, Conclusion and Recommendations

7.1 Introduction

In recent years, concerns about the impacts of corporations on the environment and wider society have received considerable attention. Indeed, there has been a surge of enthusiasm for ways in which corporations can balance their economic responsibilities with other social and environmental responsibilities (Scheyvens et al. 2016). In this regard, the SDGs emerged as a guidepost to direct the sustainable efforts of the private sector while also urging corporations to rethink their business models and how they sustainably create value (Rosati and Faria 2019a; Weerasinghe et al. 2023). Given the scale of the SDGs and the development challenges they address, the involvement of the private sector is critical in achieving the goals. The business case supporting the involvement of the private sector rests on arguments around capability, leadership, resources, and innovation. Consequently, the SDGs have gained salience within the business community, with a majority of large corporations embedding the goals within their operations and reporting practices. Hence, SDGs reporting has emerged as an accountability mechanism for communicating the private sector's contributions to the SDGs Agenda.

Against this background, the current study sought to explore the practice of corporate reporting on the SDGs within the UK corporate environment. In this regard, the first part of the thesis reviewed the empirical literature on this nascent reporting practice to identify how this research field has developed, offer a critique, and suggest a research agenda to advance the field further. The second part focuses on examining to what extent current sustainability performance reports of FTSE 100 companies incorporate disclosures on the SDGs (scope and quality of SDGs reporting), and the use of impression management in demonstrating corporate accountability. The third part investigates the intrinsic antecedents/motivations for corporate SDGs reporting, and the relationship between corporate SDGs reporting and firm performance. Overall, the thesis offers some significant contributions to the existing literature on corporate SDGs reporting and corporate sustainability which are discussed in-depth in this chapter.

In this concluding chapter, a summary of the research findings, conclusions and recommendations are presented. Further, the chapter provides a discussion of the potential academic, practice, and policy implications of the study. The chapter concludes by articulating the limitations of the study and proceeds to suggest potential avenues for future research on corporate SDGs reporting.

7.2 Summary of research findings

This section provides a summary of the research findings from the three articles.

7.2.1 Corporate reporting on the sustainable development goals: a structured literature review and research agenda

Using a structured literature review methodology, this study reviews the prevailing empirical literature on corporate SDGs reporting, develops insights into the state of this research field and identifies a future research agenda. The findings reveal that overall, corporate SDGs reporting is developing as a research field of great importance. The findings suggest that the prevailing literature succinctly describes corporate engagement with the SDGs as superficial. We observe that the current literature lacks theorisation and overly focusses on publicly listed companies. Further, regions such as North America, the UK and other emerging economies have received less attention from scholars. Also, research themes such as organisations' engagement with the SDGs and drivers of SDGs reporting dominate the existing literature. More so, the discourse is driven by the prevalence of research with positivist orientations and associated research methods. Accordingly, studies that use anti-positivist research methods to obtain evidence-based management perceptions on the phenomenon are currently lacking. In view of the foregoing, we have identified five broad areas that warrant the attention of researchers to advance the field further.

7.2.2 Accounting for the Sustainable Development Goals: Walking the talk or managing impressions?

Drawing on the theoretical perspectives of legitimacy and impression management, this study investigates how FTSE 100 companies disclose their contributions to the SDGs and examines whether and the extent to which these disclosures reflect the outcome of genuine accountability to stakeholders, or merely represent impression management. Following Ashforth and Gibbs' (1990) substantive versus symbolic approach to legitimacy management, we theorise that a substantive approach to

SDGs reporting entails unbiased disclosure of SDG-related information, in accordance with the *SDG Compass* and KPMG's *quality criteria for SDGs reporting*. Conversely, if a symbolic approach is adopted, SDG-related disclosures are expected to be self-serving, constituting impression management. Adopting a meaning-oriented content analysis approach, we apply our disclosure framework and typology of impression management strategies to the SDG-related disclosures within the sustainability performance reports of selected FTSE 100 companies.

The study provides evidence that the majority of FTSE 100 companies are increasingly referencing the SDGs in various corporate sustainability performance reports. Nevertheless, for companies reporting their contributions to the SDGs, the disclosures are largely limited with most companies primarily aligning their existing sustainability activities with several SDGs, suggesting a symbolic approach to the SDGs. Furthermore, the results reveal that only a limited number of companies disclose performance goals and objectives in relation to the priority SDGs and sub-targets as well as measurable indicators to track progress. This suggests that while most companies reference the SDGs in their sustainability performance reports, there is a notable disparity in the level of attention given to the quality of SDG-related disclosures. Regarding impression management, the evidence reveals the extensive bias of SDG-related disclosures towards positive and optimistic language as well as self-serving assertive attributional strategies. Given that the SDGs are less corporate focussed, with the business case for the SDGs not clearly established, it is not surprising that corporate contributions are expressed in a more optimistic and positive tone. Our results support our contention that the broad nature of the SDGs offers incentives for impression management through systematic biases (language and attributional behaviour) in firms' SDG-related disclosures. We find that companies use more positive language in SDGs reporting to present a more favourable impression of their contributions by emphasising positive outcomes that create a generally optimistic image of their commitment to the 2030 Agenda. Additionally, assertive statements dominate firms' SDG-related disclosures through demonstrative, organisational promotion, entitlement, and enhancement strategies. Overall, our results suggest an active framing of SDG-related disclosures in a self-serving manner to influence key stakeholders to believe that the company is committed to the 2030 Agenda.

7.2.3 CEO narcissism, power, and corporate SDGs reporting: an empirical analysis

Based on a sample of 325 CEO-year observations, the study examines the relationship between CEO narcissism and power on corporate SDGs reporting, the mediating effect of CEO age on CEO narcissism-SDGs reporting nexus, and the influence of SDGs reporting on firm performance. The findings provide considerable support for our hypotheses including evidence that CEO narcissism and CEO power significantly influence firms' engagement with the SDGs. Thus, the findings reveal that firms with narcissistic CEOs are more likely to engage with the SDGs and integrate the goals in their sustainability performance reports. This suggests that firms may be engaging with the SDGs not necessarily for strategic reasons or the incentive to contribute towards their achievement but to satisfy the CEO's craving for attention and praise. This finding is consistent with prior studies on corporate sustainability (Patrenko et al. 2016; Tang et al. 2018; Al-Shammari et al. 2019; Dabbebi et al. 2022). In addition, coherent with prior studies (Marquez-Illescas et al. 2019; Byun and Al-Shammari 2021), the findings show that CEO age has implications for CEO narcissism and SDGs reporting nexus such that the effect of CEO narcissism on SDGs reporting is weaker for firms with older CEOs.

Regarding the effect of CEO power on SDGs reporting, the findings reveal that firms with powerful CEOs are less likely to integrate the SDGs into their business operations and reporting practices. This is consistent with the arguments of prior research (Jiraporn and Chintrakarn 2013; Muttakin et al. 2018) that powerful CEOs may feel entrenched in their positions and thus could afford not to care about the interests of other stakeholders. Lastly, the findings confirm the symbolic role of corporate SDGs reporting (Ashforth and Gibbs 1990). The study evidences corporate SDGs reporting does not play an instrumental role in improving firm performance. Consistent with prior literature (Avrampou et al. 2019; García Meca and Martínez Ferrero 2021; Bose and Khan 2022), the findings indicate firms' engagement with the SDGs is largely driven by symbolic motives rather than their potential to improve value creation process. 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.

7.3 Contribution to academia

The contributions of the study to knowledge are manifold. First, the primary contribution to the SDGs reporting literature is the introduction of a multi-dimensional disclosure framework to measure SDGs performance. Research on corporate SDGs reporting documents an increasing lack of completeness and concerns about the quality of SDG-related disclosures (Avrampou et al. 2019; García Meca and Martínez Ferrero 2021; Silva 2021). Although research on corporate SDGs reporting has increased over the period, most scholars have investigated the field using measures that do not accurately capture the quality of reporting. As Chauvey et al. (2015) point out, though the amount *('how much')* and the topics *('what')* of disclosure are potentially relevant for managers and report users, they fail to take into account other important dimensions that characterise the information disclosed. Accordingly, Beretta and Bozzolan (2004, p. 266) accentuate that disclosure quality "depends on both the quantity of information disclosed and on the richness offered by additional information". Information diversity signals an organisation's awareness of its impacts on a wider scale (Beck et al. 2010), and thus, an instrument that captures a "high level of resolution of meaning" is imperative (Michelon et al. 2015, p. 65). In this regard, the proposed disclosure framework overcomes the limitations associated with traditional measurement approaches such as word counts or binary variables as a measure of corporate SDGs performance.

Second, we contribute to the critical perspective on SDGs reporting by presenting new evidence that, consistent with existing sustainability practices, SDGs reporting is prone to managerial capture (Michelon et al. 2015). We extend the literature by focussing on an underdeveloped research area – the thematic content and quality of SDG-related disclosures. In doing so, we address the call in the literature for research on where corporate "specific SDG-related accounting initiatives lie on the continuum between pure rhetoric and meaningful action" (Bebbington and Unerman 2018, p. 10). We extend the impression management literature by examining two less-researched impression management strategies: thematic manipulation and structural manipulation (emphasis by reinforcing disclosures) (Brennan et al. 2009). We contribute new insights on impression management in narrative disclosures and provide empirical support for Brennan *et al.'s* (2009) methodological approach.

Although impression management research in sustainability reporting has garnered considerable attention in recent years, a majority of the studies focus on attributional and neutralisation strategies (e.g., Boiral, 2016; Hooghiemstra, 2000; Sandberg and Holmlund, 2015; Talbot and Boiral, 2018). Our study complements this stream of research by examining self-serving bias manifested through linguistic and attributional strategies aimed at managing stakeholder perceptions of corporate contributions to the 2030 Agenda.

Third, the study extends the literature on determinants/antecedents of SDGs reporting, addressing calls for theoretical innovation in SDGs reporting research (Bebbington & Unerman, 2018). Considering the dominance of legitimacy, institutional and stakeholder theories in voluntary disclosure research, the study contributes to the literature by shedding light on how the attributes of key decision-makers in the firm may play a role in the decision to integrate the SDGs. Grounded in the upper echelons theory, the study focuses on CEO narcissism and CEO power, recognising their significance in shaping corporate strategic actions. With narcissistic CEOs exhibiting a persistent demand for external narcissistic supply, the 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 this vein, the study offers novel insights into the intrinsic antecedents of SDGs reporting, contributing valuable perspectives to the understanding of the strategic dynamics shaping corporate engagement with the SDGs.

Fourth, the study provides statistical evidence to support the prevailing discourse on the instrumental role of corporate sustainability practices, particularly SDGs engagement, on firm performance. The findings are consistent with the symbolic perspective of sustainability reporting, suggesting that corporate engagement with the SDGs currently lacks value-enhancing actions to influence firm performance. The study reveals a deficiency in the current approach to embedding the SDGs, lacking value-enhancing attributes that could generate tangible economic benefits for reporting firms (Dyllick and Muff 2016). Consequently, managers should reconsider their strategies for SDGs integration, emphasising material SDGs, identifying opportunities for a “win-win” approach (Zampone et al. 2023), and avoiding boilerplate reporting. Thus, the current 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, the study contributes to this stream of literature (e.g., Avrampou et al., 2019; Emma & Jennifer, 2021; Silva, 2021) which suggests that corporate SDGs reporting is purposefully for legitimacy or impression management purposes. Accordingly, the study enriches the existing literature by proposing a typology of impression management strategies companies deploy to frame their SDGs performance, as well as the corresponding impressions, conveyed through these disclosures.

Lastly, the relevance of longitudinal research has been well-established in the literature. As Beattie et al. (2008) observe, longitudinal research offers the opportunity to investigate innovation and change in reporting practices over a period. Longitudinal studies are useful in highlighting the pattern of narrative disclosures over time. Given that the majority of corporate SDGs reporting is cross-sectional (Awuah et al. 2024), the study addresses calls for longitudinal studies in SDGs reporting research, enriching our understanding of how this reporting practice has evolved over time. The study also contributes to the understanding of the scope and quality of corporate SDGs reporting within the UK corporate environment. Although corporate SDGs reporting research has increased over the years, the UK has been largely ignored in the prevailing discourse except for Silva (2021) and Botchway and Bradley (2023). This is quite staggering considering the size of the UK corporate environment and expertise in the field of social and environmental reporting (Bebbington *et al*., 2012; Beck et al., 2010). Thus, the study extends the literature by examining how this nascent reporting practice is evolving in this research context.

7.4 Implications for policy and practice

To begin with, the current study contributes to the policy discourse on the SDGs and the needed actions to ensure that collectively, we achieve the SDGs Agenda by 2030. As the UN Secretary-General António Guterres points out, *“unless we act now, the 2030 Agenda could become an epitaph for a world that might have been”* (UN, 2023, p. 2). As governments strive to act on the SDGs, the focus has now shifted to the private sector and the role of corporations in achieving the goals. Considering the overwhelming evidence that corporate engagement is symbolic, the question that still lingers is whether the time has come to use the ‘stick’ (coercive or regulatory actions) in an attempt to encourage substantive actions. As Scheyvens et al. (2016, p. 380) accentuates, “most businesses do not respond to the soft language of business responsibility, rather, they only make substantive changes if they are obliged to do so.” This is particularly important given that the SDGs are less corporate-focused, enabling the private sector to adopt a symbolic approach to the SDGs agenda. In this regard, the current study contributes to the ongoing policy discourse on mandating SDGs reporting in line with *Target 12.6*, by arguing that achieving the SDGs requires a move towards a more corporate social obligation (Caprani 2016; Scheyvens et al. 2016), rather than a voluntary supplementary activity. This necessitates regulatory intervention to influence businesses in adopting a substantive approach which may result in transformational changes necessary to advance the goals.

On the same policy implication, the current study highlights significant variations in how businesses account for and communicate their contributions to the SDGs. Although some companies disclose how material or priority goals are selected and acted upon, the majority of reporting firms largely adopt a boilerplate approach and align their sustainability activities with all the SDGs. Thus, despite reporting initiatives such as the *SDG Compass* by the World Business Council for Sustainable Development (WBCSD), GRI, and the UN Global Compact, variations persist in how companies communicate their SDG-related actions. In this regard, there is a compelling need for policymakers and regulators to consider a uniform reporting framework to harmonise SDGs disclosure practices, thereby enhancing the relevance of SDGs reporting and fostering substantive contributions to sustainable development. Understanding the antecedents of corporate SDGs reporting and the impact of SDGs integration on firm performance could assist policymakers in formulating policies that promote a substantive approach to corporate engagement (Ashforth and Gibbs 1990; Gray 2010). This requires an integrated approach, where organisations assess their entire value chain to discern the impact of their operations on the SDGs and identify opportunities for value creation. Such a uniform reporting framework will increase the credibility and quality of corporate SDGs reporting, thereby enhancing the information usefulness of SDG-related disclosures.

Additionally, the results indicate the need to develop more robust governance mechanisms to ensure that businesses adopt a substantive approach towards the

SDGs Agenda. The results highlight the role of CEO narcissism and power in corporate SDGs reporting and how narcissistic CEOs may use SDGs reporting for their self-interest motives. Also, the presence of a sustainability committee and a more gender-diverse board positively influences SDGs reporting. These results have important implications for policy in understanding current practices and corporate responses to the SDGs. On one hand, powerful CEOs, driven by their self-interest may be less motivated to invest firms' resources in initiatives that advance the SDGs. In contrast, CEOs with high narcissistic tendencies may use the SDGs to generate narcissistic supply culminating in a symbolic approach to the SDGs. This is pronounced in firms with young and highly narcissistic CEOs. Policy implications could arise in relation to the appropriate governance mechanisms to restrain the downsides of excessive CEO narcissism and power. For instance, policymakers or regulators may use sustainability committees to curb the downsides of CEO narcissism, and direct firms' efforts towards substantive engagement. Accordingly, a more diverse and balanced board may restrain powerful CEOs from becoming deeply entrenched such that they no longer favour SDG-related investments. Thus, understanding the effects of CEO attributes on firms' SDG-related initiatives is crucial in directing future policy and regulatory efforts aimed at advancing corporate actions towards achieving the SDGs.

Furthermore, the results represent new avenues for practitioners and consultants. The findings demonstrate that a deeper understanding of the managerial implications as well as the drivers of SDGs disclosure practices is necessary in order to more substantive changes in corporate SDGs engagement (García Meca and Martínez Ferrero 2021; Pizzi et al. 2022) (Emma and Jennifer, 2021; Pizzi et al., 2022). Thus, the study highlights specific areas and new opportunities that practitioners may focus on to enhance the value of corporate SDGs reporting. This will require active collaborations between the accounting academic community and practitioners, as emphasised by the SDGs framework.

From a market standpoint, investors should exercise great caution when analysing corporate disclosures concerning their contributions to sustainable development. The findings underscore that such disclosures may be motivated by self-interests, particularly the narcissistic inclinations of CEOs, rather than genuine commitments to the SDGs and stakeholder accountability. From a management perspective, The disclosure framework proposed for SDGs reporting could assist managers in enhancing the scope and quality of SDGs disclosures, thus satisfying the principles of transparency, comparability and balance underpinning reporting on the SDGs. Also, the persistent use of symbolic representations to manage legitimacy may yield unexpected outcomes that may be costly over the long term (Ashforth and Gibbs 1990). Such symbolic practices tend to exacerbate stakeholder perceptions regarding the credibility and transparency of SDGs reporting as an effective accountability mechanism.

7.5 Limitations of the study and suggestions for future research

While this study offers useful insights into corporate SDGs reporting, it is imperative to bear in mind the limitations of the study, which in turn represent avenues for future research. First, the sample was limited to only FTSE 100 companies listed on the London Stock Exchange, which was reduced further due to data unavailability. Thus, future research might extend the study to consider larger samples, such as FTSE 250, FTSE 350, or FTSE All-Share, thereby improving the generalisability of the findings. Accordingly, future research may investigate sustainability performance reports of companies in different jurisdictions, thereby facilitating cross-contextual comparisons and enriching the understanding of corporate contributions to sustainable development.

Second, the SDG-related disclosures contained in firms' sustainability performance reports were analysed using a self-constructed disclosure framework based on the *SDG Compass* (GRI and UNGC, 2016) and the *State of Progress: Business Contribution to the SDG*. Although the instrument is quite broad in analysing the extent (scope) and quality of SDG-related disclosures compared to prior measurement approaches, it remains a self-developed disclosure framework which is susceptible to the researcher's subjectivity-bias. Accordingly, self-constructed frameworks risk overlooking other relevant disclosure elements (Beattie et al. 2004). In this regard, future research may adopt the instrument to examine SDGs reporting in other contexts to enhance its reliability. In addition, future research may use other well-established frameworks such as the GRI standards to assess firms' SDGs performance. Similarly, given the challenges associated with the use of questionnaires to assess CEOs' personality traits, the study followed prior research on CEO narcissism and adopted an unobtrusive approach to measure CEO narcissism. Future research may extend the literature by considering 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.

Furthermore, another limitation of the study was the focus on examining SDGs reporting from the preparers' (management) perspective (Burritt and Schaltegger 2010; Schaltegger and Burritt 2010). While this perspective offers a valuable theoretical framework for exploring firms' SDGs performance, the perspective of the users of this information is an important avenue for future research. Future research may examine the effect of impression management on readers/users of SDG-related disclosures. Given that the current study focuses on impression management from the preparers' perspective, the researcher does not conclude whether the impression management strategies are successful in influencing readers, or whether they can identify and assess the bias associated with these disclosures. Thus, future research may enrich the discourse by investigating stakeholders' expectations and views on corporate SDGs reporting.

Lastly, the strategic value of SDG-related disclosures in managerial decision-making is an important theme for future research. Although there seems to be an overwhelming consensus regarding the role of SDGs reporting in driving transformational changes in firms' SDGs performance (Pizzi et al. 2020; Weerasinghe et al. 2023; Zampone et al. 2023), its role in addressing management's information requirements remain open questions. As Awuah et al. (2023) argue, organisations may use SDGs reporting to inform their corporate sustainability strategies which ultimately may lead to an improved SDGs performance. Qian and Schaltegger (2017) demonstrate this in the field of carbon accounting, highlighting the importance of reporting in improving sustainability performance. In this regard, future research may investigate how SDGs reporting supports managerial decision-making and whether firms use reporting to influence SDGs performance in subsequent periods. Additionally, future research may explore how managers integrate the SDGs into their core business operations as well as the strategic use of reporting for internal decision-making. This calls for more interventionist research, such as case studies, where researchers engage with organisations to explore these issues.

7.6 Chapter summary

This chapter presents a summary of the key findings of the study and provides the implications for literature, policy and practice. Further, the limitations of the study are discussed in detail which represent avenues for future SDGs-motivated accounting research.

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Appendices

Appendix 1: Corporate SDG reporting publications reviewed

Authors	Title
Ahmad and Buniamin, (2021)	The Relationship between SDG Engagement and Corporate Financial Performance: Evidence from Public Listed Companies in Malaysia
Arena *et al.* (2022)	Sustainable development goals and corporate reporting: An empirical investigation of the oil and gas industry.
Avrampou *et al.* (2019)	Advancing the Sustainable Development Goals: Evidence from leading European banks
Battaglia *et al.* (2020)	Moving Businesses toward Sustainable Development Goals (SDGs): Evidence from an Italian “Benefit-For-Nature” Corporation
Bose and Khan (2021)	Sustainable development goals (SDGs) reporting and the role of country-level institutional factors: An international evidence
Botchway and Bradley (2022)	The diffusion of the sustainable development goals (SDGs): an examination of preparer perceptions
Calabrese *et al.* (2022)	Is the private sector becoming cleaner? Assessing the firms' contribution to the 2030 Agenda.
Caputo *et al.* (2021)	The contribution of higher education institutions to the sdgs—an evaluation of sustainability reporting practices
Consolandi *et al.* (2020)	Material ESG Outcomes and SDG Externalities: Evaluating the Health Care Sector’s Contribution to the SDGs
Cosma *et al.* (2020)	Sustainable Development and European Banks: A non-financial disclosure analysis
Costa *et al.* (2021)	Corporate Social Responsibility through SDGs: Preliminary Results from a Pilot Study in Italian Universities
Costa *et al.* (2022)	Do SDGs Really Matter for Business? Using GRI Sustainability Reporting to Answer the Question
Curtó-Pagès *et al.* (2021)	Coming in from the Cold: A Longitudinal Analysis of SDG Reporting Practices by Spanish Listed Companies Since the Approval of the 2030 Agenda

Di Vaio and Varriale (2020)	SDGs and airport sustainable performance: Evidence from Italy on organisational, accounting and reporting practices through financial and non-financial disclosure
Diaz-Sarachaga (2021)	Monetizing impacts of Spanish companies toward the Sustainable Development Goals
Diaz-Sarachaga (2021b)	Shortcomings in reporting contributions towards the sustainable development goals
Elalfy *et al.* (2020)	The Sustainable Development Goals: a rising tide lifts all boats? Global reporting implications in a post SDGs world
Emma and Jennifer (2021)	Is SDG reporting substantial or symbolic? An examination of controversial and environmentally sensitive industries
Erin and Bamigboye (2021)	Evaluation and analysis of SDG reporting: evidence from Africa
Fonseca and Carvalho, (2019)	The Reporting of SDGs by Quality, Environmental, and Occupational Health and Safety-Certified Organizations
García-Sánchez *et al.* (2020)	Do institutional investors drive corporate transparency regarding business contribution to the sustainable development goals?
García-Sánchez *et al.* (2020)	Sell recommendations by analysts in response to business communication strategies concerning the Sustainable Development Goals and the SDG compass
Gazzola *et al.* (2020)	Non-Financial Information Disclosure in Italian Public Interest Companies: A Sustainability Reporting Perspective
Gerged and Almontaser, (2021)	Corporate adoption of SDG reporting in a non-enabling institutional environment: Insights from Libyan oil industries
Guandalini *et al.* (2019)	Assessing the implementation of Sustainable Development Goals through switching cost.
Gunawan *et al.* (2020)	Sustainable development goal disclosures: Do they support responsible consumption and production?
Heras-Saizarbitoria *et al.* (2021)	Organizations' engagement with sustainable development goals: From cherry-picking to SDG-washing?
Hummel and Szekely (2021)	Disclosure on the Sustainable Development Goals – Evidence from Europe

Iazzi *et al.* (2022)	Sustainable Development Goals and healthy foods: perspective from the food system
Ike *et al.* (2019)	The process of selecting and prioritising corporate sustainability issues: Insights for achieving the Sustainable Development Goals
Izzo *et al.* (2020)	The Challenge of Sustainable Development Goal Reporting: The First Evidence from Italian Listed Companies
Jha and Rangarajan (2020)	The approach of Indian corporates towards sustainable development: An exploration using sustainable development goals based model
Kazemikhasragh *et al.* (2021)	Factors influencing the adoption of SDG reporting by large African and Asian companies
Khaled *et al.* (2021)	The Sustainable Development Goals and corporate sustainability performance: Mapping, extent and determinants
Krasodomska *et al.* (2023)	Reporting on Sustainable Development Goals in the European Union: what drives companies' decisions?
Kuswantoro *et al.* (2022)	Exploring the implementation of sustainable development goals: a comparison between private and state-owned enterprises in Indonesia.
Lau and Wong (2022)	The integration of Sustainable Development Goals into businesses sustainability management: a reporting perspective
Macellari *et al.* (2021)	Exploring bluewashing practices of alleged sustainability leaders through a counter-accounting analysis
Manes-Rossi and Nicolo (2022)	Exploring sustainable development goals reporting practices: From symbolic to substantive approaches-Evidence from the energy sector
Martínez-Ferrero and García-Meca (2020)	Internal corporate governance strength as a mechanism for achieving sustainable development goals

Nechita *et al.* (2020)	Is Financial Information Influencing the Reporting on SDGs? Empirical Evidence from Central and Eastern European Chemical Companies
Nichita *et al.* (2020)	Reporting on Sustainable Development Goals. A score-based approach with company-level evidence from Central-Eastern Europe economies
Nylund *et al.* (2022)	Firm engagement in UN Sustainable Development Goals: Introduction of a constraints map from a corporate reports content analysis
Oppong (2022)	Sustainable Development Goals and Small and Medium Enterprises: A Comparative Study of Emerging Economies and Sub-Saharan Africa
Ordonez-Ponce and Khare (2021)	GRI 300 as a measurement tool for the United Nations sustainable development goals: assessing the impact of car makers on sustainability
Ordonez-Ponce and Talbot (2023)	Multinational enterprises' sustainability practices and focus on developing countries: Contributions and unexpected results of SDG implementation
Ordonez-ponce and Weber (2022)	Multinational financial corporations and the sustainable development goals in developing countries
Perello-Marin *et al.* (2022)	Analysing GRI reports for the disclosure of SDG contribution in European car manufacturers
Pineda-Escobar (2019)	Moving the 2030 agenda forward: SDG implementation in Colombia
Pizzi *et al.* (2021)	The determinants of business contribution to the 2030 Agenda: Introducing the SDG Reporting Score
Pizzi *et al.* (2022)	Voluntary disclosure of Sustainable Development Goals in mandatory non- financial reports: The moderating role of cultural dimension
Rosati and Faria (2019a)	Addressing the SDGs in sustainability reports: The relationship with institutional factors

Rosati and Faria (2019b)	Business contribution to the Sustainable Development Agenda: Organizational factors related to early adoption of SDG reporting
Santos and Silva Bastos (2021)	The adoption of sustainable development goals by large Portuguese companies
Silva (2021)	Corporate contributions to the Sustainable Development Goals: An empirical analysis informed by legitimacy theory
Singh and Rahman (2021)	Integrating corporate sustainability and sustainable development goals: towards a multi- stakeholder framework
Tsalis *et al.* (2020)	New challenges for corporate sustainability reporting: United Nations' 2030 Agenda for sustainable development and the sustainable development goals
Tsalis *et al.* (2022)	The nexus of United Nations' 2030 Agenda and corporate sustainability reports.
Vallet-Bellmunt *et al.* (2022)	Reporting Sustainable Development Goal 12 in the Spanish food retail industry. An analysis based on Global Reporting Initiative
van der Waal and Thijssens (2020)	Corporate involvement in Sustainable Development Goals: Exploring the territory
van der Waal *et al.* (2021)	The innovative contribution of multinational enterprises to the Sustainable Development Goals
van Zanten and van Tulder (2018)	Multinational enterprises and the sustainable development goals: An institutional approach to corporate engagement
Yu *et al.* (2020)	Adoption and Implementation of Sustainable Development Goals (SDGs) in China—Agenda 2030
Zampone *et al.* (2022)	Gender diversity and SDG disclosure: the mediating role of the sustainability committee
Zampone *et al.* (2023)	Imitation is the sincerest form of institutionalization: Understanding the effects of imitation and competitive pressures on the reporting of sustainable development goals in an international context.

Appendix 2: Developing a typology of impression management strategies

IM strategy	Description	Source	Included/Excluded
Admission	This strategy refers to the firm readily admitting instances where it has failed to act sustainably or in a manner that supports the impression it seeks to portray.	Sandberg and Holmlund (2015)	Included (Defensive)
Apologies	This relates to instances where an organisation's management accepts at least some responsibility for an event with a negative outcome and expresses some remorse.	Cooper and Slack (2015), Tedeschi and Melburg (1984)	Excluded This strategy is akin to the admission and thus has been integrated with the admission strategy
Concealment	An organisation downplays an event with a negative outcome by giving it less prominence.	Cooper and Slack (2015), Merkl-Davies and Brennan (2011)	Excluded Initial analysis of the disclosures did not support the use of concealment
Demonstrative	An organisation's management attempts to provide information about its actions in instances where it has succeeded in behaving sustainably. Reporting facts and	Bansal and Kistruck (2006)	Included (Assertive)

	numbers to describe its actions and giving examples of actions		
Disassociation	This relates to instances where an organisation distances itself from an event with a negative outcome	Cooper and Slack (2015), Ogden and Clarke (2005)	Excluded Initial analysis of the disclosures did not support the use of disassociation. At best, FTSE 100 companies attribute responsibility or non-performance to other actors, thus the use of disassociation appears less probable.
Description	This relates to instances where the company provides information about its actions.	Sandberg and Holmlund (2015)	Excluded Similar to the demonstrative strategy. This impression is captured by the demonstrative strategy.
Enhancement	This strategy is employed by management to reinforce the desirability of a positive event/outcome for which they were, at least partially, responsible.	Hooghiemstra (2000), Mohamed *et al*. (1999)	Included (Assertive)

Entitlement	An organisation’s management attempts to maximise its responsibility for a positive event or outcome.	Hooghiemstra (2000); Tedeschi and Melburg (1984)	Included (Assertive)
Exemplification	An organisation portrays an image of integrity, social responsibility and conformity to principled ideals and ethical conduct	Cooper and Slack (2015), Ogden and Clarke (2005)	Excluded This behaviour is similar to organisational promotion and thus we integrate it with organisational promotion.
Excuses	These are explanations designed to deny the organisation’s responsibility for events that may reflect unfavourably on its image or claims to legitimacy, however, attribute the failure to external, uncontrollable, or unintentional causes	Ashforth and Gibbs (1990), Hooghiemstra, (2000)	Included (Defensive)
External attribution	An organisation’s management attributing negative outcomes to external factors	Brennan and Merkl-Davies (2013), Dunne *et al.* (2021)	Excluded This strategy is captured by the strategy of excuses.

Internal attribution	Instances where management attributes positive outcomes to their actions, claiming responsibility for positive outcomes	Brennan and Merkl-Davies (2013), Dunne *et al.* (2021)	Excluded This behaviour is captured by the entitlement strategy.
Justification	The organisation accepts responsibility for the unfavourable action but denies that the act resulted in any adverse outcomes. This strategy seeks to reduce the negativities of the consequences	Hooghiemstra, (2000), Tedeschi and Melburg (1984)	Included (Defensive)
Omission	An organisation deliberately withholding negative information from the public	Cooper and Slack (2015), Dunne *et al.* (2021)	Excluded Omissions are usually identified by examining counter accounts. The use of counter accounts is beyond the scope of the study, and thus the exclusion of this strategy.
Organisational handicapping	An organisation presents a task as being too difficult to complete, thus it should be excused for non-performance	Boiral (2013), Copper and Slack (2015), Mohammed et al. (1999)	Excluded This strategy is captured by the strategy of excuses

Organisational promotion	An organisation promoting its competence, qualities, experience, and capabilities	Jones and Pittman (1982), Sandberg and Holmlund (2015)	Included (Assertive)
Praise	Presenting the organisation in an overly favourable manner as noble with high morals, competent, credible and praises its very existence	Bolino *et al.* (2008), Sandberg and Holmlund (2015)	Excluded This strategy is similar to organisational promotion, thus integrated with the strategy of organisational promotion

Appendix 3: List of FTSE 100 companies as of September 2022

	Company	Reports
1	3i Group Plc	Sustainability Report
2	Abrdn plc	Sustainability Report
3	Admiral Group	Sustainability Report
4	Anglo American	Sustainability Report
5	Antofagasta Holdings	Sustainability Report
6	Ashtead Group plc	Responsible Business Report
7	Associated British Foods plc	Responsibility Update
8	AstraZeneca plc	Sustainability Report
9	Auto Trader Group plc	Annual Report
10	Avast plc	ESG Report
11	AVEVA Group plc	Sustainability Report
12	Aviva plc	Sustainability Report
13	B&M European Value Retail SA	ESG Report
14	BAE Systems plc	Annual Report
15	Barclays plc	Annual Report
16	Barratt Developments plc	Annual Report and Accounts
17	Berkeley Group Holdings plc	Sustainability Report
18	BHP Group Plc	Annual Report
19	BP Plc	Sustainability Report
20	British American Tobacco plc	ESG Report
21	British Land Co plc	Sustainability Accounts
22	BT Group plc	Manifesto Report
23	Bunzl plc	Sustainability Report
24	Burberry Group plc	Annual Report
25	Coca-Cola HBC AG	Integrated Annual Report
26	Compass Group plc	Sustainability Report
27	CRH plc	Sustainability Report
28	Croda International plc	Sustainability Report
29	DCC plc	Sustainability Report
30	Dechra Pharmaceuticals plc	Sustainability Report
31	Diageo plc	Annual (Integrated) Report

32	Entain plc	ESG Report
33	Evraz plc	Sustainability Report
34	Experian Plc	Annual Report
35	Ferguson plc	ESG Report
36	Flutter Entertainment	Annual Report
37	Fresnillo	Annual Report
38	GlaxoSmithKline plc	ESG Report; Our Contribution to the SDGs
39	Glencore plc	Sustainability Report
40	Halma plc	Annual Report and Accounts
41	Hargreaves Lansdown plc	CSR Impact Report
42	Hikma Pharmaceuticals	Sustainability Report
43	HSBC Holdings plc	Annual Report and Accounts
44	Imperial Brands Group	Annual Report and Accounts
45	Informa plc	Sustainability Report
46	InterContinental Hotels Group plc	Responsible Business Report; ESG Databook
47	Intermediate Capital Group plc	Sustainability and People Report
48	International Consolidated Airlines Group SA	Consolidated Statement of Non-Financial Information
49	Intertek Group plc	Sustainability Report
50	ITV plc	Social Purpose Impact Report
51	JD Sports Fashion plc	Annual Report and Accounts
52	Kingfisher	Responsible Business Report
53	Land Securities Group plc	Sustainability Performance and Data Report
54	Legal & General Group plc	Sustainability Report
55	Lloyds Banking Group plc	ESG Report
56	London Stock Exchange Group plc	Sustainability Report
57	M&G plc	Sustainability Report
58	Meggitt	Annual Report and Accounts
59	Melrose Industries plc	Sustainability Report

60	Mondi Plc	Sustainable Development Report; SDG Index
61	National Grid	Responsible Business Report
62	NatWest Group plc	ESG Supplement
63	Next plc	Corporate Responsibility Report
64	Ocado Group plc	Annual Report
65	Pearson plc	Annual Report
66	Pershing Square Holdings Ltd	Annual Report
67	Persimmon plc	Sustainability Report
68	Phoenix Group Holdings Plc	Sustainability Report
69	Polymetal International plc	Integrated Annual Report
70	Prudential plc	ESG Report
71	Reckitt Benckiser Group Plc	Sustainability Insights
72	RELX plc	Corporate Responsibility Report
73	Rentokil Initial Plc	Responsible Business Report
74	Rightmove plc	Sustainability Report
75	Rio Tinto plc	Annual Report
76	Rolls Royce Holdings Plc	Annual Report
77	Royal Dutch Shell Plc	Sustainability Report
78	Royal Mail PLC	Corporate Responsibility Report
79	RS Group	Annual Reports and Accounts
80	Sage Group plc	Sustainability Report
81	Sainsbury (J) plc	Sustainability Update
82	Schroders plc	Annual Report and Accounts
83	Scottish Mortgage Investment Trust	Annual Report
84	Segro Plc	Performance Data Pack
85	Severn Trent Plc	Sustainability Report
86	Smith (DS)	Sustainability Report
87	Smith & Nephew plc	Sustainability Report
88	Smiths Group Plc	Global ESG Report
89	Smurfit Kappa Group Plc	Sustainable Development Report
90	Spirax-Sarco Engineering plc	Sustainability Report
91	SSE plc	Sustainability Report

92	St James's Place Plc	Annual Report and Accounts
93	Standard Chartered plc	ESG Report
94	Taylor Wimpey plc	Sustainability Supplement and ESG Addendum
95	Tesco plc	Annual Report
96	Unilever plc	Annual Report and Accounts
97	United Utilities Group Plc	Annual Report
98	Vodafone Group plc	Annual Report
99	Whitbread plc	ESG Report
100	WPP plc	Sustainability Report