ESG Performance and Beyond: Exploring Leadership, Organizational Psychological Capital, and Narcissistic Reporting

A thesis submitted for the degree of
Doctor of Philosophy in Accountancy

Karim Gaber Mohamed Mahran Abdelsayed

Brunel Business School

Brunel University London

January 2025

Author’s Declaration

To the best of my knowledge, this thesis contains no material previously published by any other person, except where the due acknowledgement has been made. This thesis does not include any content that has been previously accepted for application towards any other academic degree or diploma at any university.

Name: Karim Gaber Mohamed Mahran Abdelsayed

Signature:……………………………

Date: 13th January 2025

The study presented in chapter 2 of this PhD thesis has been accepted for publication in Business Strategy and the Environment Journal; citation: “Mahran, K., & Elamer, A. A. (2024). Chief Executive Officer (CEO) and corporate environmental sustainability: A systematic literature review and avenues for future research. *Business Strategy and the Environment*, *33*(3), 1977-2003., https://doi.org/10.1002/bse.3577”.

This paper was also presented in the *British Accounting and Finance Association (BAFA) Doctoral Masterclasses, 2023,* where I was awarded the “BAFA Doctoral Masterclass Award” for the Best Paper. Additionally, it was presented at the *2022 BAFA South-East Area Group Annual Conference,* and *2023 Brunel Doctoral Research Poster Conference.*

The study presented in chapter 3 of this PhD thesis has been accepted for publication in Business Strategy and the Environment Journal; citation: “Mahran, K., & Elamer, A. A. (2024). Shaping ESG commitment through organizational psychological capital: The role of CEO power. *Business Strategy and the Environment*, https://doi.org/10.1002/bse.4007”.

This paper was also presented in *The International Journal of Accounting* (*TIJA) PhD Consortium, 2023, (Vienna, Austria).*

The study presented in chapter 4 of this PhD thesis has been submitted to *Journal of Business Ethics*, which is currently undergoing a third round of revision and resubmission.

Abstract

Environmental, Social, and Governance (ESG) performance has emerged as a critical focus for businesses, driven by global challenges such as climate change, social inequality, and corporate misconduct. This thesis examines the dimensions of ESG performance through three essays, exploring the roles of corporate leadership, intangible organizational resources, and corporate communication strategies. Using a systematic literature review (SLR) and empirical analyses, this thesis provides novel insights into the effect of leadership and psychological resources in shaping ESG outcomes. The empirical analyses employ a dataset of 1,659 firm-year observations from UK companies listed on the FTSE 350 Index between 2012 and 2021 and employing advanced Natural Language Processing (NLP) techniques.

The first essay presents a comprehensive SLR on the CEO–environmental sustainability relationship, synthesizing 139 studies to provide a robust framework for understanding the field. It identifies critical gaps in the literature, such as the limited exploration of CEO psychological traits and the qualitative dimensions of environmental disclosures, including tone, specificity, and readability. By mapping CEO attributes to environmental outcomes, this review highlights the importance of integrating psychological and demographic factors in future sustainability research. Recommendations for future studies include cross-country comparisons, industry-specific analyses, and an exploration of underrepresented regions.

The second essay investigates the influence of Organizational Psychological Capital (OPC) on ESG performance and examines the moderating role of CEO power. The findings reveal a significant positive relationship between OPC and ESG performance, underscoring the importance of intangible resources. However, the study also shows that CEO power negatively moderates this relationship, indicating that leadership dynamics play a critical role in shaping the effectiveness of psychological resources in achieving sustainability outcomes. The analysis further highlights the dual strategic importance of OPC as a driver of both ESG and financial performance, contributing to the literature on resource-based and leadership theories.

The third essay explores the relationship between ESG performance and the use of narcissistic rhetoric in corporate disclosures, with a specific focus on the moderating role of board gender diversity. The study finds that firms with stronger ESG performance employ more narcissistic rhetoric to project legitimacy and enhance stakeholder perceptions. However, this relationship is tempered by board gender diversity, with more gender-diverse boards fostering balanced and transparent communication. The findings contribute to the literature by linking ESG performance with corporate narrative strategies and demonstrating the role of internal governance mechanisms in shaping disclosure practices.

This thesis makes significant contributions to the academic discourse on corporate governance, sustainability, and organizational behavior. First, it offers the first SLR on the CEO–environmental sustainability relationship, addressing critical gaps in the literature and providing a research framework guides future research. Second, it is the first study introduces OPC as a key intangible resource driving ESG performance, expanding resource-based theory and integrating it with upper echelons theory. Third, it enriches the disclosure literature by being the first to link ESG performance with a relatively understudied disclosure strategy—narcissistic rhetoric— and integrates legitimacy theory and gender socialization theory to explore how governance structures shape corporate narratives. Finally, the thesis employs advanced methodological approaches, including NLP techniques, to analyze qualitative dimensions of ESG disclosures, setting a precedent for future research in corporate sustainability practices and communication strategies.

Dedication

To my mother, whose unconditional love, endless sacrifices, and unwavering support have been the foundation of all my achievements. Your strength and guidance have inspired me every step of the way.

To my beloved wife, Hadeel, for your boundless patience, encouragement, and unwavering belief in my dreams. Your love and support have been my anchor throughout this journey, and I am forever grateful for your presence by my side.

To my beautiful daughter, Dalida, whose laughter and innocence bring light to my darkest days. You are my constant source of joy, motivation, and hope for a brighter and better future.

To my sisters, Sara and Riham, for their unconditional care, kindness, and unwavering faith in me. Your encouragement and belief in my abilities have been a constant source of strength.

To my colleague and sister, Sara Al-Asmakh, for your invaluable support, friendship, and encouragement. Your unwavering faith in my abilities and your thoughtful guidance have made this journey much more meaningful.

Acknowledgements

بسم الله الرحمن الرحيم

In the Name of Allah, the Most Gracious, the Most Merciful.

All praises be to Allah, who granted me the strength, patience, and wisdom to complete this thesis. Peace and blessings be upon Prophet Muhammad, whose teachings continue to inspire and illuminate the lives of millions. May Allah's blessings be upon him, his family, and his companions.

I am deeply grateful to my supervisor, Dr. Ahmed Elamer, for his unwavering support, guidance, and encouragement throughout this journey. From the very beginning, he has treated me not just as a student but as a colleague, fostering a relationship built on mutual respect and trust. His patience with my frequent questions and discussions—often outside of working hours—has been remarkable, and his constructive feedback has been instrumental in shaping my research and professional development. Dr. Ahmed's belief in my abilities and his constant encouragement have motivated me to push beyond my limits. I am fortunate to have had the privilege of working under his supervision, and I owe much of my current success to his mentorship. Thank you, Dr. Ahmed, for your unwavering dedication and for always being there to guide and inspire me.

I would also like to extend my heartfelt gratitude to my second supervisor, Professor Peter Jelfs, for his insightful guidance and invaluable support throughout this journey. His expertise and thoughtful feedback have greatly enriched my work, and his encouragement has been a source of motivation. Thank you, Professor Peter, for your dedication and contributions to my academic growth.

I would like to express my heartfelt gratitude to my dear friends, Dr. Ahmed Saleh and Mohamed Elgayar, and their families for their unwavering support throughout this journey. Beyond the academic realm, our families have shared countless cherished moments together, creating a bond that has been a source of comfort and joy. The time spent with your families, watching our children grow and sharing laughter, has provided me with balance and happiness amidst the challenges. Thank you for your kindness, generosity, and for being such an integral part of this journey.

I am deeply grateful to my colleagues at Brunel University London for their unwavering support and encouragement throughout this journey. Their shared insights, discussions, and kindness have not only enriched my academic experience but also made this challenging journey more enjoyable and fulfilling. Thank you for being an integral part of this milestone.

Lastly, I would like to extend my deepest gratitude to Damanhour University and the Egyptian Cultural and Educational Bureau in London for their generous financial support. Their unwavering commitment and assistance have been instrumental in enabling me to pursue and complete my studies, for which I am profoundly thankful. Without their support, this achievement would not have been possible.

Table of Contents

List of Tables

List of Figures

List of Appendices

List of Abbreviations

Abbreviation	Definition
2SLS	Two-Stage Least Squares
CEO	Chief Executive Officers
CSR	Corporate Social Responsibility
ESG	Environmental, Social, and Governance
GHG	Greenhouse Gas
GMM	Generalized Method of Moments
ICB	Industry Classification Benchmark
LSE	London Stock Exchange
NLP	Natural Language Processing
OPC	Organizational Psychological Capital
RBV	Resource-Based View
SDG	Sustainable Development Goals
SLR	Systematic Literature Review
SMEs	Small and Medium-sized Enterprises
TCFD	Task Force on Climate-Related Financial Disclosure
UK	United Kingdom
US	United States

Chapter 1

Introduction to the Thesis

1.1 Introduction

Environmental, Social, and Governance (ESG) issues have become a critical priority for businesses, driven by the need to address global challenges such as social inequality, corporate misconduct, climate change, resource depletion, and biodiversity loss (Albitar et al., 2023; Eliwa et al., 2023; Orazalin et al., 2024). No longer peripheral concerns, these issues are now integral to corporate strategies, as stakeholders—including regulators, investors, consumers, and communities—demand greater transparency, accountability, and alignment with sustainability goals (Bhandari et al., 2022; Khatib et al., 2021). ESG encompass three key dimensions: environmental stewardship, which focuses on reducing carbon footprints and managing resources responsibly; social equity, which emphasizes fair labor practices, diversity, and community engagement; and governance integrity, which ensures ethical leadership, transparency, and effective decision-making (Lee et al., 2023; Roberts et al., 2021). By embedding these principles into core operations, companies are shifting from reactive measures to proactive strategies, addressing immediate challenges while securing long-term success in an increasingly competitive and sustainability-driven global market (Al-Shammari et al., 2019; Bassyouny et al., 2020).

In this evolving landscape, the role of corporate leadership in driving ESG initiatives has become increasingly critical (Christensen et al., 2021; Haque, 2017). Chief Executive Officers (CEOs), in particular, play a pivotal role in the integration of ESG principles within organizational strategies and operations (Al-Shaer et al., 2023; Lu et al., 2022). Their decisions shape resource allocation, corporate culture, and the prioritization of sustainability objectives (Elsayih et al., 2020; Giannarakis et al., 2022). CEOs influence how businesses respond to external pressures, such as regulatory demands and stakeholder expectations, and internal challenges, including resource constraints and operational efficiency (Khatib et al., 2021; McLaughlin et al., 2019; Roberts, Hassan, et al., 2021). Their ability to align ESG initiatives with long-term strategic objectives is crucial for fostering innovation, enhancing organizational resilience, and maintaining competitive advantage (Winschel, 2021). By setting a clear vision for sustainability and leading by example, CEOs can cultivate a corporate culture that values transparency, accountability, and ethical practices, thereby driving meaningful progress in environmental, social, and governance domains (Al-Shaer & Zaman, 2019; Mahran & Elamer, 2024a).

In addition to the role of corporate leadership, organizational intangible assets are expected to play a significant role in influencing ESG performance (Gunarathne et al., 2021; Mansouri & Momtaz, 2022). These assets, which include elements such as corporate reputation, culture, and psychological resources, provide the foundation for embedding sustainability into a company's core operations (Grözinger et al., 2022). Among these intangible assets, Organizational Psychological Capital (OPC) stands out as a critical factor (Anglin et al., 2018a; Luthans et al., 2004; McKenny et al., 2013). OPC, encompassing optimism, resilience, hope, and confidence, fosters a supportive and innovative organizational environment. It is anticipated to strengthen a firm's capacity to address sustainability challenges, adapt to regulatory demands, and meet stakeholder expectations (McKenny et al., 2013). By enhancing employee engagement and collaboration, OPC can drive proactive efforts toward achieving environmental and social goals (Luthans, 2007; Wang et al., 2014). Furthermore, OPC is expected to improve an organization's ability to innovate and implement effective governance practices, ensuring alignment with ESG objectives (Schmidt & Flatten, 2022). This influence is particularly crucial in times of uncertainty, where a positive and resilient organizational culture can help navigate disruptions while maintaining a focus on long-term sustainability goals (Anglin et al., 2018a). Together, these factors underscore the integral role of OPC in complementing leadership to drive meaningful progress in ESG performance.

ESG practices are not only operational imperatives but also strategic tools for shaping corporate disclosures and reinforcing legitimacy (Lee et al., 2023). Companies with strong ESG performance often use these disclosures to showcase their commitment to sustainability, fostering trust and enhancing their corporate reputation (Merkley, 2014; Shan, 2019). In this context, some organizations may strategically incorporate elements of narcissistic rhetoric—a communication style characterized by self-promotion, entitlement, and an exaggerated emphasis on success (Iivonen and Moisander, 2015). This rhetoric allows companies to highlight their ESG achievements while downplaying or omitting challenges and shortcomings (Duchon and Drake, 2009). By portraying themselves as exemplary leaders in sustainability, companies can create an idealized narrative that reinforces their legitimacy and positions them as superior in addressing ESG concerns (Anglin et al., 2018b; Craig and Amernic, 2011). Thus, companies with robust ESG practices may strategically use narcissistic rhetoric not only to align with stakeholder expectations but also to enhance their perceived legitimacy and maintain a competitive edge in the sustainability-driven business landscape.

Prior studies on the relationship between CEOs and sustainability practices have highlighted the significant influence of CEO attributes, such as tenure, gender, education, and power, on the adoption and effectiveness of ESG practices (e.g., Adu et al., 2022b; Al-Shaer & Zaman, 2019; Elsayih et al., 2020; Giannarakis et al., 2022; Gómez-Bezares et al., 2019; Oware & Awunyo-Vitor, 2021; Razali et al., 2016; Shahab et al., 2022; Sumarta et al., 2021; Ullah et al., 2022; Winschel, 2021). These studies present a diverse range of findings: while some emphasize positive relationships, showcasing how visionary leadership and inclusive CEO characteristics can enhance ESG outcomes, others highlight negative associations, particularly when excessive CEO power prioritizes short-term financial goals over long-term sustainability. This fragmented knowledge has created inconsistencies in understanding the CEO-ESG dynamic, necessitating further investigation to reconcile these conflicting findings and build a comprehensive framework.

Similarly, research on organizational resources has predominantly focused on tangible, traditional factors like financial resources, physical assets, and organizational processes to explain variations in corporate performance (e.g., Gabler et al., 2023; Orazalin et al., 2024; Porcu et al., 2020). While these studies offer valuable insights, they often neglect the role of intangible resources in shaping ESG practices. For instance, OPC remains underexplored in the context of ESG performance, despite its potential to foster innovation, adaptability, and alignment with sustainability objectives. The limited attention paid to OPC in existing literature underscores the need to investigate how such intangible assets contribute to enhancing corporate sustainability and addressing the complexities of ESG implementation.

Furthermore, the connection between ESG practices and corporate narratives, particularly the strategic use of narcissistic rhetoric, has received limited scholarly attention. Previous research has primarily examined the relationship between ESG performance and the extent of corporate disclosure, focusing on the amount and type of information shared with stakeholders (e.g., Baldini et al., 2018; Giannarakis et al., 2017; Eliwa et al., 2023; Saputra & Murwaningsari, 2021; Wong & Zhang, 2022). While these studies provide a foundational understanding of how ESG performance influences transparency and reporting, they often overlook the communicative styles used within these narratives. Specifically, the link between ESG performance and the use of narcissistic rhetoric in corporate narrative disclosure, which could be instrumental in shaping corporate legitimacy and stakeholder perceptions, remains underexplored.. This gap highlights the need to understand how organizations strategically balance authentic ESG disclosures with narrative techniques designed to enhance their image and reputation.

To address these research gaps, this thesis undertakes a comprehensive examination of the interplay between corporate leadership and sustainability by conducting a Systematic Literature Review (SLR), as well as empirically investigate the association between OPC and ESG performance, and the link between ESG practices and organizational narcissistic rhetoric, utilizing a dataset from the United Kingdom (UK) companies. A context chosen for its strong emphasis on sustainability initiatives, making it an ideal setting for this research. The UK has established stringent ESG reporting regulations and fostered a corporate culture that prioritizes transparency, accountability, and ethical practices (Moussa et al., 2023). Regulatory frameworks such as the Financial Conduct Authority’s ESG disclosure requirements and the widespread adoption of the Task Force on Climate-Related Financial Disclosures (TCFD) have set high standards for corporate sustainability practices (Al-Shaer et al., 2023). Furthermore, the UK's focus on employee engagement, organizational well-being, and positive organizational behavior aligns closely with the principles of OPC, making it an exemplary environment for studying these dynamics (Smith, 2020). This robust regulatory environment is further reinforced by active stakeholder engagement, with investors, consumers, and communities increasingly demanding meaningful contributions to environmental and social causes (Al-Shaer & Zaman, 2019). In this context, corporate disclosures become a vital tool for communicating ESG efforts. Examining the language used in these disclosures, including elements of narcissistic rhetoric, is crucial to understanding how companies balance their sustainability narratives with stakeholder expectations and legitimacy demands.

1.2 Objectives of the Study

This thesis aims to achieve the following objectives:

- Objective 1: Present a SLR on CEO and corporate environmental sustainability.
- Objective 2: Examine the relationship among OPC, ESG, and CEO power.
- Objective 3: Explore the association between ESG performance, organizational narcissistic rhetoric, and board gender diversity.

1.3 Summary of Results and Significant Contributions

1.3.1 Objective 1: Present a SLR on CEO and corporate environmental sustainability

The SLR primarily aims to explore the relationship between CEO characteristics and corporate environmental sustainability and seeks to answer two main questions. First what does the literature show about the current state of research on the link between CEO characteristics and corporate environmental sustainability? Second, what are the research gaps and possible directions for future research in this area? Focusing on themes such as CEO demographic traits, psychological attributes, environmental performance, and environmental disclosure. The study delves into how these themes connect, analyzing how demographic factors like age, tenure, and gender, along with psychological aspects such as humility and overconfidence, shape sustainability outcomes. By synthesizing 139 studies, the review seeks to identify gaps, trends, and patterns in existing literature. It provides a roadmap for future research by offering a theoretical framework that links CEO attributes with organizational environmental outcomes. The objective is not only to deepen academic understanding but also to offer practical insights for decision-makers and policymakers, emphasizing the critical role of leadership in promoting sustainability.

1.3.1.1 Summary of Results

The results highlight several key findings. Research on the relationship between CEO traits and environmental sustainability has seen a significant rise, particularly in recent years, with a notable peak in 2022. Geographically, studies have concentrated heavily on the United States (US) and China, while developing economies remain underrepresented. The findings underscore the influence of CEO demographic characteristics, such as age, tenure, education, and gender, on environmental performance and disclosure. Moreover, psychological traits like humility, narcissism, and overconfidence are found to impact sustainability efforts, though these aspects remain underexplored. The review also points out that most studies focus on environmental performance, often using quantitative metrics, whereas qualitative aspects of environmental disclosure, such as tone and specificity, have been largely overlooked. Additionally, while theoretical frameworks such as upper echelons theory are commonly employed, other theories and the integration of different theoretical approaches remain underutilized, indicating a need for a more comprehensive and varied theoretical grounding in this area.

1.3.1.2 Significance

The first objective of this thesis makes a significant contribution to both academic research and practical applications by addressing critical gaps in the relationship between leadership and environmental sustainability. To the best of the author's knowledge, this is the first literature review that offering a comprehensive overview of how CEO attributes influence environmental performance and disclosure practices. The study offers a holistic approach that enhances theoretical clarity and establishes a foundation for a more nuanced understanding of leadership's impact on corporate sustainability. Additionally, a key academic contribution of the study is the development of a theoretical framework that links CEO characteristics with environmental sustainability outcomes, drawing on established theories such as upper echelons theory and stakeholder theory. The research critically evaluates the application of these theories in prior studies, exposing inconsistencies and proposing pathways for the creation of more integrated and robust theoretical models. This effort not only enriches the theoretical landscape but also provides a systematic foundation for future research to investigate the interplay between CEO traits and sustainability initiatives, addressing methodological limitations in existing studies.

Moreover, the study identifies critical research gaps, particularly in the underexplored influence of CEO psychological traits on qualitative aspects of environmental disclosure, such as tone, specificity, and readability. It also highlights the disproportionate focus on developed economies like the United States and China, leaving developing regions and diverse industrial contexts underrepresented. These findings underscore the need to expand research into less explored areas, including cross-country comparisons and sector-specific analyses, to broaden the scope and applicability of sustainability studies. Practically, it offers actionable insights to corporate leaders, governance bodies, and policymakers by emphasizing the significance of diverse CEO traits in driving effective environmental strategies. It highlights the need for leadership development programs and board-level initiatives that align with sustainability goals. Furthermore, it stresses the integration of sustainability-oriented leadership qualities in succession planning and corporate governance frameworks, addressing the fragmented application of such principles in practice.

1.3.2 Objective 2: Examine the relationship among OPC, ESG, and CEO power

The objective of the second essay is to investigate the role of OPC in shaping corporate ESG practices, with a particular focus on the underexplored potential of intangible resources within the corporate sustainability domain. OPC, characterized by attributes such as resilience, optimism, and confidence, represents a unique and valuable resource that can drive organizations toward more effective sustainability outcomes (McKenny et al., 2013). In addition to examining this primary relationship, the essay explores the moderating effect of CEO power on the OPC-ESG performance connection, analyzing how leadership dynamics influence the deployment and effectiveness of psychological resources in achieving sustainability goals.

Grounded in the Resource-Based View (RBV) and upper echelons theory, the study offers a comprehensive interdisciplinary framework for understanding the interplay between OPC, ESG commitment, and leadership power. RBV highlights the strategic importance of intangible resources like OPC (Barney, 1991; Orazalin et al., 2024), while upper echelons theory emphasizes the role of leadership characteristics in shaping organizational outcomes (Hambrick, 2007; Hambrick & Mason, 1984). By integrating these perspectives, the research addresses a notable gap in the literature, providing a deeper understanding of how psychological resources and leadership attributes jointly contribute to corporate sustainability initiatives. To achieve its objectives, the study is guided by two key research questions. First, how does OPC impact corporate ESG practices, fostering enhanced sustainability performance? Second, to what extent does CEO power moderate this relationship, potentially amplifying or tempering the influence of OPC on ESG outcomes?

1.3.2.1 Summary of Results

Using a dataset comprising 1,659 firm-year observations from UK companies listed on the FTSE 350 Index and employing Natural Language Processing (NLP) techniques and Python-based analytics, this study reveals significant insights into the relationship between OPC, ESG performance, and CEO power. The findings demonstrate that OPC plays a pivotal role in shaping corporate sustainability practices, with higher levels of OPC linked positively with enhanced ESG performance. The analysis highlights that firms with stronger collective psychological attributes—such as optimism, resilience, and confidence—are better equipped to implement and maintain effective ESG strategies. However, the moderating effect of CEO power shows that this positive relationship is tempered in cases where CEOs hold significant authority. This negative moderation suggests that powerful CEOs may prioritize short-term financial goals over long-term sustainability initiatives, thus diminishing the overall impact of OPC on ESG performance

Additional analyses highlight that while OPC is positively associated with all dimensions of ESG, its influence varies across ESG pillars. Morover, OPC is shown to enhance financial performance, extending its benefits beyond sustainability outcomes. These results underscore the dual strategic importance of OPC as both a driver of ESG performance and a contributor to broader financial success. Furthermore, robustness tests, including Two-Stage Least Squares (2SLS) and Generalized Method of Moments (GMM), address potential endogeneity concerns and validate the consistency of the findings.

1.3.1.2 Significance

The second essay of this thesis makes significant theoretical contributions and offers practical implications that advance the understanding of corporate sustainability. Theoretically, to the best of the author's knowledge, this research is the first to examine the impact of OPC, an intangible resource, on ESG performance. This pioneering work provides a novel perspective on the strategic role of psychological resources in shaping corporate sustainability outcomes. Furthermore, the integration of RBV and upper echelons theory creates a comprehensive theoretical framework that bridges organizational behavior and strategic management. This unique combination sheds light on the interplay between OPC and leadership dynamics, offering an understanding of how intangible resources and CEO influence jointly impact ESG outcomes, particularly through the study's focus on the moderating effect of CEO power.

Practically, the essay delivers actionable insights for corporate boards and policymakers. It underscores the critical importance of fostering OPC within organizations to enhance their capacity for sustainability initiatives. At the same time, it highlights the need to balance CEO power to ensure that psychological resources are effectively leveraged for long-term ESG commitments. Moreover, the findings emphasize the broader implications of OPC in driving financial performance, demonstrating its dual value as a resource that benefits both sustainability practices and overall corporate success. Collectively, these contributions position the study as a significant addition to the discourse on sustainable business strategies and corporate governance, offering valuable guidance for academics and practitioners alike.

1.3.2 Objective 3: Explore the association between ESG performance, organizational narcissistic rhetoric, and board gender diversity

The third essay focuses on exploring the relationship between ESG performance and the use of narcissistic rhetoric in corporate narrative disclosures using a dataset comprising 1,659 firm-year observations from UK companies listed on the FTSE 350 Index and employing NLP techniques. It delves into how organizations with varying levels of ESG performance strategically employ rhetorical techniques to highlight their achievements and sustain legitimacy in the eyes of stakeholders. Additionally, the study investigates the moderating effect of board gender diversity, specifically analyzing how the percentage of female directors on the board influences the connection between ESG performance and narcissistic rhetoric.

Central to this investigation are two research questions that guide the study's objectives. First, how does ESG performance impact the use of narcissistic rhetoric in corporate disclosures? Second, to what extent does board gender diversity influence this relationship? The research is grounded in two key theoretical frameworks: legitimacy theory and gender socialization theory. Legitimacy theory provides a foundation for understanding how organizations construct narratives to align their activities with societal norms and expectations, thereby maintaining or enhancing their social license to operate (Dowling and Pfeffer, 1975; Lee et al., 2023; Roberts et al., 2021). Gender socialization theory complements this by offering insights into how gender diversity influences decision-making processes and communication styles, suggesting that greater representation of women on boards may lead to less self-aggrandizing and more inclusive rhetoric in corporate disclosures (Boulouta, 2013; Eliwa et al., 2023).

1.3.3.1 Summary of Results

The findings reveal a significant relationship between ESG performance and the use of narcissistic rhetoric in corporate narrative disclosures among UK companies. Firms with stronger ESG performance tend to employ more narcissistic language in their disclosures, strategically emphasizing their sustainability achievements to enhance their corporate image and project legitimacy. This behavior aligns with the principles of legitimacy theory, as organizations use narrative rhetoric to align their activities with societal expectations and maintain their social license to operate (Dowling and Pfeffer, 1975; Lee et al., 2023). The moderating effect of board gender diversity adds an important layer to these findings. The analysis shows that a higher percentage of female directors on the board significantly reduces the extent of narcissistic rhetoric in corporate ESG disclosures. This result supports gender socialization theory, highlighting the influence of gender diversity in fostering more balanced and transparent corporate communication (Boulouta, 2013; Eliwa et al., 2023). Additional analyses reveal a positive link between financial performance and the use of organizational narcissistic rhetoric. This suggests that firms not only use self-promotional language to highlight their ESG achievements but also to reinforce their financial success, leveraging both to bolster their reputation and stakeholder confidence. The robustness of these findings is confirmed through multiple robustness analyses.

1.3.3.2 Significance

The third essay makes several significant contributions, advancing both theoretical understanding and practical applications in the fields of corporate governance, sustainability, and organizational behavior. First, by examining the relationship between ESG performance and narcissistic rhetoric in corporate narrative disclosures, the essay provides novel insights into how firms strategically construct their sustainability narratives. This research highlights the deliberate use of rhetorical strategies by companies to project legitimacy, enhance their corporate image, and align their activities with societal expectations. It illuminates the role of narrative construction as a tool for signalling commitment to sustainability, demonstrating how organizations frame their ESG achievements to maintain their social license to operate.

Second, the research uniquely integrates legitimacy theory and gender socialization theory, offering a comprehensive theoretical framework for understanding the factors that shape the language of corporate disclosures. By combining these perspectives, the study addresses a critical gap in the literature, exploring how organizational and leadership dynamics intersect to shape corporate rhetoric. This theoretical contribution not only enriches the academic discourse on corporate sustainability but also paves the way for future research on the strategic use of language in corporate reporting.

Third, the results highlight the role of diverse leadership in fostering more balanced, transparent, and stakeholder-focused communication. Female board members are shown to influence the language of corporate narratives, promoting authenticity and inclusivity over self-aggrandizement. This contribution extends gender socialization theory, providing empirical evidence of how diverse leadership structures can shape organizational behavior and communication practices.

Practically, the findings have important implications for various stakeholders. For corporate leaders, understanding the relationship between ESG performance and narcissistic rhetoric provides valuable insights into the delicate balance required to maintain legitimacy. This knowledge can guide them in crafting disclosures that project confidence without crossing into excessive self-promotion. For policymakers and regulators, our study underscores the need to promote ethical communication practices beyond merely ensuring accurate ESG reporting. It suggests that new legislation or guidelines could be introduced to enforce transparency and incentivize companies to genuinely embrace sustainability practices, fostering a more authentic approach to corporate communication. Finally, for stakeholders such as investors and consumers, the study highlights the role of narcissistic rhetoric in corporate communication. Being aware of this can help them critically evaluate the true nature of corporate disclosures and make more informed decisions based on the genuine performance and practices of organizations.

1.4 Overview of Thesis

This thesis is structured into five chapters as follows:

Chapter 1 serves as an introduction, presenting the background and motivation for the study. It outlines the research questions and objectives, summarizes the key findings, highlights the significant contributions for each objective individually, and concludes with an overview of the thesis structure.

Chapter 2 presents the first essay: "Chief Executive Officer (CEO) and corporate environmental sustainability: A systematic literature review and avenues for future research".

Chapter 3 presents the second essay: "Shaping ESG Commitment through Organizational Psychological Capital: The Role of CEO Power".

Chapter 4 presents the third essay: "Navigating the corporate ego: Understanding the association between ESG performance and organizational narcissistic rhetoric".

Chapter 5 presents a summary and conclusion of the thesis, highlighting its contributions and implications. It also addresses the limitations of the study and offers suggestions for future research.

Chapter 2

Essay 1

Chief Executive Officer (CEO) and corporate environmental sustainability: A systematic literature review and avenues for future research

Abstract

Environmental sustainability has gained significant importance for organizations, highlighting the crucial role of business leaders in addressing environmental degradation. However, the connection between chief executive officer (CEO) characteristics and environmental sustainability remains understudied in academic literature. Understanding this relationship is crucial, considering the significance of environmental sustainability in organizational strategies. This paper presents the first systematic literature review (SLR) on this topic, aiming to identify gaps and opportunities for future research. The SLR analysed 139 studies on the CEO–environmental sustainability relationship. The findings indicate a recent increase in research activity, particularly peaking in 2022 and focusing on China and the United States (US). Most studies employed upper echelons theory and examined the influence of CEO demographic characteristics on environmental performance. However, less attention has been given to CEO psychological traits, such as personality and ethical leadership, and environmental disclosure. Furthermore, qualitative aspects of environmental disclosure, including reporting tone, readability and specificity, have received less attention. The findings offer valuable insights for academics, practitioners and policymakers. Recommendations for future research include exploring the impact of CEO psychological traits and environmental disclosure on a firm's environmental sustainability. Additionally, studying cross-country and cross-industry differences in this relationship is encouraged. This study makes a significant contribution to the field by shedding light on the crucial and relevant topic of environmental sustainability and its association with CEO characteristics, providing valuable insights to guide future research and inform decision-makers.

Keywords: CEO; corporate environmental sustainability; CEO demographic characteristics; CEO psychological characteristics; environmental performance; environmental disclosure.

2.1 Introduction

Chief executive officers (CEOs) have gained significant attention in academia, politics and media, with a focus on their characteristics and impacts (Lu et al., 2022). In today's political climate, it is crucial for business leaders to prioritize both commercial success and environmental consciousness. CEOs have a fiduciary responsibility to prevent negative environmental effects and address climate change (Al-Shaer et al., 2023). To fulfil this obligation, CEOs should take measures to reduce their company's carbon footprint, establish measurable targets for Greenhouse Gas (GHG) emissions reduction and minimize resource usage (Haque, 2017). Increasingly, regulators, investors and environmental organizations demand that CEOs adopt corporate reforms addressing climate change concerns (Al-Shaer et al., 2023). CEOs' approaches to environmental reporting and performance can vary, but society needs assurance that businesses are meeting their environmental responsibilities for sustainable growth. Different perspectives on sustainability influence how CEOs implement sustainability policies and guide corporate decisions (Landrum, 2018).

The connection between CEOs and environmental sustainability has received limited attention, resulting in a growing body of research on the relationship between corporate governance, the board of directors, and the CEO regarding environmental performance and reporting (Christensen et al., 2021; Shahab et al., 2020). Previous studies have explored various aspects, including CEO compensation, CEO attributes' impact on environmental performance, and environmental disclosure (Adu et al., 2022b; Al-Shaer & Zaman, 2019; Elsayih et al., 2020; Giannarakis et al., 2022; Gómez-Bezares et al., 2019; Oware & Awunyo-Vitor, 2021; Razali et al., 2016; Shahab et al., 2022; Sumarta et al., 2021; Ullah et al., 2022; Winschel, 2021). However, a comprehensive understanding of the CEO–environmental sustainability engagement literature is still lacking. CEOs hold a crucial role in driving environmental initiatives and shaping sustainability strategies (Aabo & Giorici, 2022; Khatib et al., 2021; McLaughlin et al., 2019; Roberts, Hassan, et al., 2021; Roberts, Nandy, et al., 2021; Ullah et al., 2022, 2023). Connecting these efforts to a broader framework, such as the United Nations Sustainable Development Goals (SDGs), can provide a clear pathway for aligning business actions with global sustainability priorities (Rosati et al., 2022; Van Zanten & van Tulder, 2021). Conducting a systematic literature review (SLR) would address the knowledge gap and provide insights into future prospects in the CEO–environmental sustainability engagement field (Shahab et al., 2020).

This SLR aims to investigate the relationship between CEOs and environmental sustainability by examining the existing literature and considering recent developments in the field. The review is motivated by several key factors: firstly, the United Nations climate change conferences that focus on addressing climate change globally and building on previous achievements for future goals; secondly, CEOs' increasing emphasis on implementing environmental strategies, highlighting their recognition of sustainability's importance for organizational success; thirdly, the growing interest of companies in sustainability issues, which can attract investment, enhance stakeholder engagement, and promote the development of sustainable and resilient organizations; and lastly, scholars in the sustainability field increasingly recognize the importance of understanding the connection between CEOs and firms' environmental policies. This review aims to provide a comprehensive overview of the current research landscape and offer insights into future prospects, bridging a significant knowledge gap in the CEO–environmental sustainability engagement literature.

This SLR offers unique contributions to the literature on CEOs and environmental sustainability. Firstly, it comprehensively analyses previous studies published over the past decade, identifying patterns, trends, and gaps in the existing literature. It provides a roadmap for future research, synthesizing various aspects like year, journal, country, research methodologies, and theoretical frameworks. Prior research has often focused on specific aspects, making this comprehensive approach distinct. Secondly, this study compiles relevant research in a user-friendly table, facilitating future researchers. The table includes publication-specific data such as research methodology, theoretical framework, and key findings, enabling quick identification of relevant literature. Thirdly, this study contributes to the development of a theoretical framework that captures key dimensions of the CEO–environmental sustainability relationship. By synthesizing existing literature, it identifies influential factors like CEO characteristics, corporate governance, stakeholder pressure, and institutional factors. This framework informs future research and enhances understanding of how CEOs contribute to sustainable development. Lastly, this study provides valuable insights for academics, practitioners, policymakers, and business leaders. It highlights gaps in the literature and offers actionable recommendations based on a comprehensive analysis. This unique contribution aids in effectively addressing climate change.

The structure of this review study is organized into five main sections. Section 2, ‘Research Framework,’ outlines the scope and objectives of the study, while ‘Methodology’ describes the methods and approaches used to conduct the review. Section 3 presents the findings of the review. Section 4 provides suggestions for further research. Section 5 summarizes the key points and highlights the significance of the study.

2.2 Research Framework and Methodology

2.2.1 Scope of the review

Recent research has highlighted the importance of both substantive and process-oriented carbon reduction initiatives for companies to legitimize their environmental sustainability efforts. For example, several studies have investigated the effectiveness of carbon reduction targets and initiatives in reducing GHG emissions (Haque & Ntim, 2022; Luo & Tang, 2021). These studies have shown that companies that set carbon reduction targets and implement actual initiatives tend to have lower emissions and better environmental performance than those that do not. Moreover, scholars have emphasized the importance of process-oriented carbon reduction initiatives in enhancing the legitimacy of a firm's environmental sustainability efforts. Such initiatives include stakeholder engagement, environmental reporting, and certification programs (Alshbili & Elamer, 2020; Alshbili et al., 2021; Banerjee et al., 2003; Boulhaga et al., 2023; Crossley et al., 2021). For example, some studies have shown that stakeholder engagement can enhance the legitimacy of a firm's environmental sustainability efforts by enabling the identification and prioritization of key environmental issues and concerns (Crossley et al., 2021; Elmagrhi et al., 2019; Hassan et al., 2020, 2021; Hazaea et al., 2022). Other studies have shown that environmental reporting and certification programs can enhance the transparency and credibility of a firm's environmental sustainability efforts, thereby enhancing stakeholder trust and support (Banerjee et al., 2003; Warmate et al., 2021).

It has been found that setting carbon reduction targets and implementing actual initiatives lead to lower emissions and improved environmental performance (Haque & Ntim, 2022; Luo & Tang, 2021). Process-oriented initiatives, such as stakeholder engagement, environmental reporting, and certification programs, play a crucial role in enhancing the legitimacy of a firm's environmental sustainability efforts (Banerjee et al., 2003; Crossley et al., 2021). Stakeholder engagement helps identify and prioritize key environmental issues (Crossley et al., 2021), while environmental reporting and certification programs improve transparency and credibility, fostering stakeholder trust and support (Banerjee et al., 2003).

In this SLR, we examine the relationship between CEOs and environmental sustainability, aiming to clarify and improve existing definitions (Fatima & Elbanna, 2023). CEO attributes have been identified as crucial in shaping firm outcomes, such as performance (Abernethy et al., 2019; Dikolli et al., 2018; Nienhaus, 2022; Saleh et al., 2020), compensation (Chang et al., 2021; Powers et al., 2016), disclosure (Ernawan & Daniel, 2019; Liu & Nguyen, 2020), earnings management (Alhmood et al., 2020; Bouaziz et al., 2020), and risk-taking (Campbell et al., 2019; Farag & Mallin, 2018). Despite this, the connection between CEO characteristics and environmental sustainability has received relatively limited attention in the academic literature (Arena et al., 2018).

Environmental sustainability includes a variety of practices and policies designed to reduce a firm's impact on the natural environment (Aguilera et al., 2021). These practices involve energy and waste reduction, sustainable resource usage, and the implementation of environmental management systems. In light of current environmental challenges, businesses are encouraged to adopt environmentally sustainable strategies (Walls & Berrone, 2017).

Researchers in management are increasingly focused on understanding how CEOs and corporate governance structures impact decision-making related to environmental sustainability. Environmental initiatives demand substantial investments and require collaboration among various corporate actors (Walls & Berrone, 2017). This literature review examines the broad concept of environmental sustainability, encompassing environmental performance, innovation, and firms' environmental disclosure, all of which fall under the responsibility of CEOs.

Considering the global concern for environmental degradation and the urgency for firms to adopt sustainable practices, it is crucial to comprehend the influence of CEOs on these practices and their contributions to sustainable development. This SLR aims to advance research in both the fields of environmental sustainability and CEO characteristics by thoroughly examining the relationship between CEO attributes and environmental sustainability. Moreover, it provides recommendations for future research and offers guidance to business leaders in informing their decision-making processes.

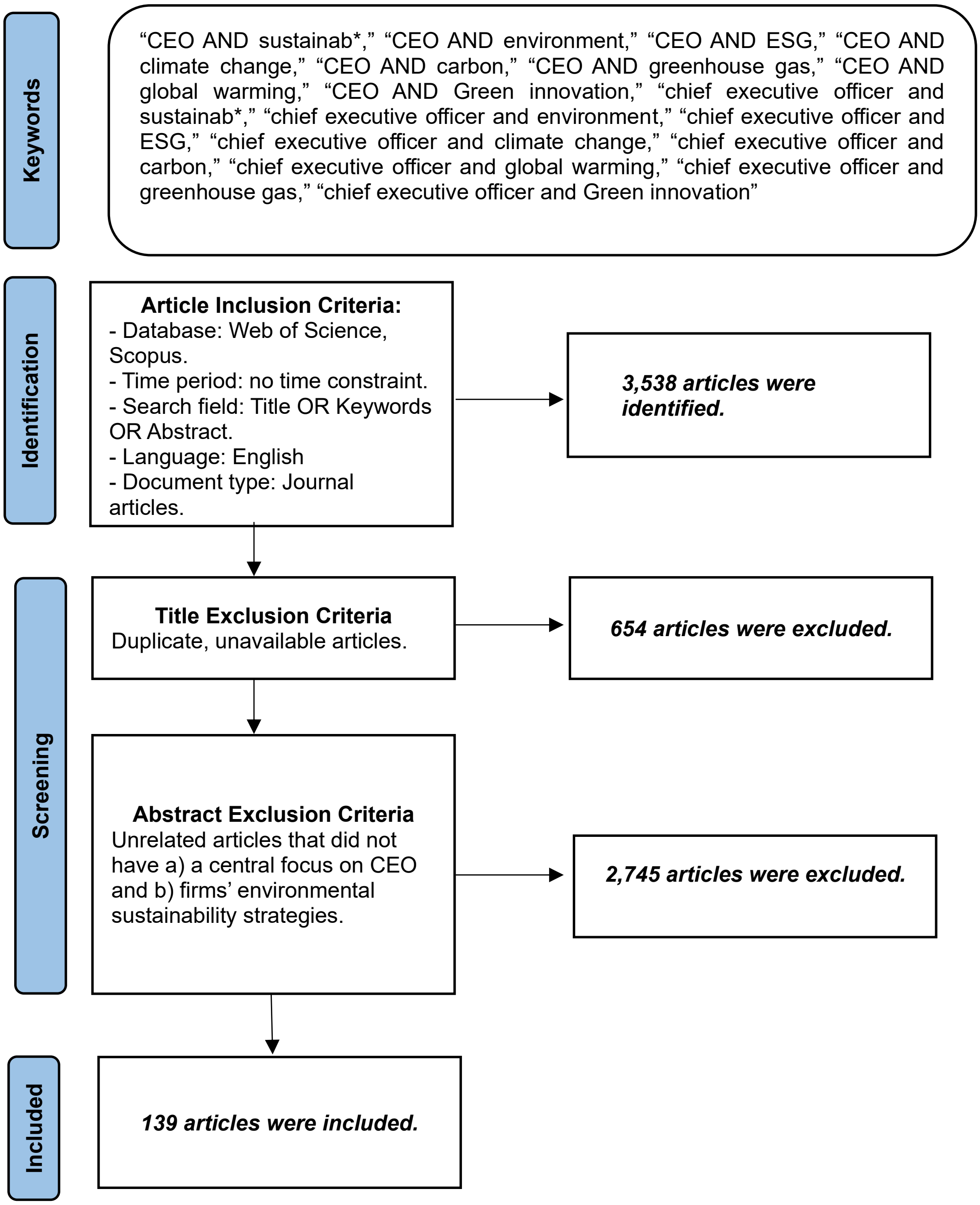
2.2.2 Research design

In this study, an SLR methodology was employed to review the existing literature on the relationship between CEO and environmental sustainability. The use of SLR was motivated by the desire to ensure replicability and transparency in the review process (Fatima & Elbanna, 2023). The systematic process outlined by Tranfield et al. (2003) and Klarner et al. (2022) was followed during the SLR. To ensure that the scope of the search was clearly defined, only studies that focused on the concept of environmental sustainability, including firm's environmental performance and reporting, were included. The concept of environmental sustainability and its association with companies' executives have been referred to as climate change, green innovation, environmental, social and governance (ESG), GHG emissions and carbon performance (Balasubramanian et al., 2021; Chithambo et al., 2020; Hossain et al., 2022; Luo et al., 2021; Ren et al., 2021; Villalba-Ríos et al., 2022) in literature. The steps involved in the inclusion and exclusion process are summarized in Figure 1.

The SLR was carried out using two leading databases, Scopus and Web of Science, in the fields of business, accounting, business/finance, management, economics and environmental science. The selection of these databases was based on the number of fields they cover and the quality of the content they provide, ensuring a wider range of articles (Lu et al., 2022; Nguyen et al., 2020). The keywords for the search were identified through a review of the most cited and recent articles on CEO and environmental sustainability in Google Scholar. A set of keywords was used in the search title, abstract and keywords to ensure no relevant article was missed, including 'CEO AND sustainab*[1]', 'CEO AND environment', 'CEO AND ESG', 'CEO AND climate change', 'CEO AND carbon', 'CEO AND greenhouse gas', 'CEO AND global warming', 'CEO AND Green innovation', 'chief executive officer and sustainab*', 'chief executive officer and environment', 'chief executive officer and ESG', 'chief executive officer and climate change', 'chief executive officer and carbon', 'chief executive officer and global warming', 'chief executive officer and greenhouse gas' and 'chief executive officer and Green innovation'. The steps involved in the SLR process, including the inclusion and exclusion criteria, are illustrated in Figure 1.

[1] The author opted to use the term 'sustainab*' as a truncation or wildcard symbol to capture variations of the word, such as sustainability, sustainable or sustainably. By using this approach, the author aimed to ensure a broader scope in our search strategy and encompass a wider range of relevant literature related to environmental sustainability and its various manifestations.

Figure 2.1 PRISMA – research design



Additionally, our inclusion criteria did not include any time constraint as it would have limited our ability to analyse and draw conclusions from the existing literature on the relationship between CEO and environmental sustainability. We only included academic journal articles and reviews that were written in English (Fatima & Elbanna, 2023; Roberts, Hassan, et al., 2021). Based on the objective of this SLR, the purpose here is to expand upon the extant literature by providing a comprehensive literature review by synthesizing and analysing publications about CEO and environmental sustainability relationship to critically analyse and identify any critical gaps and limitations in current knowledge. Due to limited publications in the research area, articles from all academic journals are considered (Roberts, Hassan, et al., 2021). To minimize the chances of including unreliable data, we excluded working papers, conference papers and theses that are commonly referred to as 'grey literature'. This initial search process resulted in 3538 papers, but after removing duplicates and unavailable articles, a total of 2884 relevant articles remained. To further narrow down the list, we used the software NVivo to analyse the titles and abstracts of the remaining articles. After that, we thoroughly read the titles, abstracts and, if necessary, the introduction and conclusion sections of the papers to confirm their relevance to the research themes (Lu et al., 2022). Ultimately, a final sample of 139 articles was used for the analysis. The most relevant sources of our sample articles are shown in Figure 2, while Figure 3 shows the most globally cited documents.

Figure 2.2 Most relevant sources

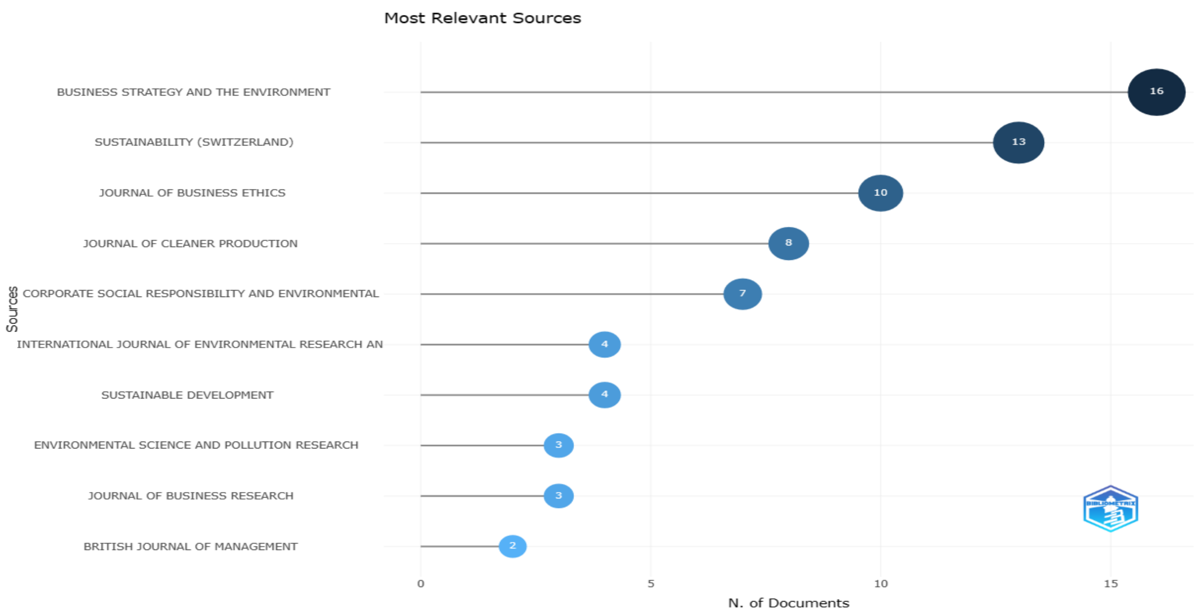
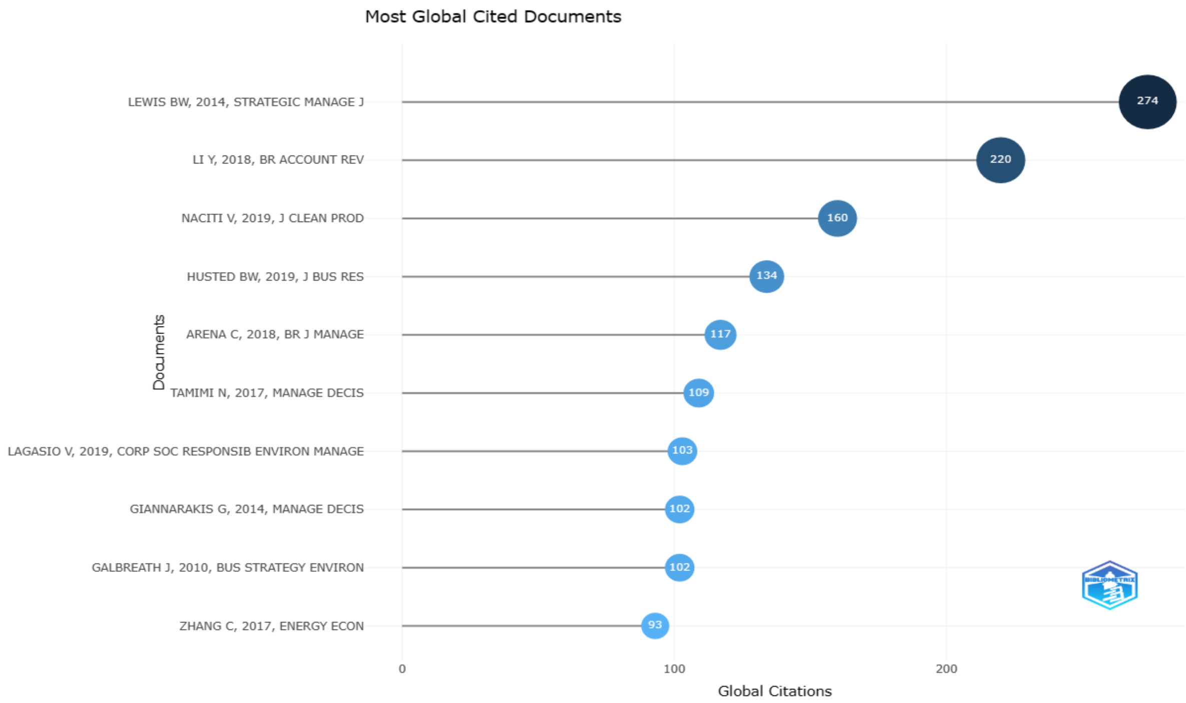


Figure 2.3 Most global cited documents



Subsequently, we established a systematic coding procedure for the articles. In line with the method proposed by Gaur and Kumar (2018), we coded the articles based on various criteria, including the year of publication, author(s), title, objective, country, theoretical framework, journal, methodology and primary results. Our analysis revealed that the majority of studies in the literature focused on one or multiple of the following dimensions: CEO compensation, environmental performance, environmental disclosure and CEO characteristics. These dimensions were deduced from our coding process, and all related concepts were integrated into our coding scheme.

In terms of CEO compensation, the studies examined both monetary benefits (Rath et al., 2020) and non-monetary benefits (Deng & Gao, 2013). The environmental performance aspect was investigated using concepts such as sustainability performance (Ahn, 2020), environmental strategies (Fan et al., 2021), environmental innovation (Quan et al., 2021) and environmental responsibility (Zhang, 2017). Environmental disclosure was analysed through ESG disclosure (McBrayer, 2018), sustainability reporting (Gavana et al., 2016), reporting assurance (Al-Shaer & Zaman, 2019) and sustainability reporting style (Lopatta et al., 2022). Lastly, CEO characteristics included demographic characteristics such as age (Oware & Awunyo-Vitor, 2021), background (Adomako & Amankwah-Amoah, 2021), duality (Rezaee et al., 2020), experience (Shahab et al., 2020), gender (Aabo & Giorici, 2022) and political connections (Huang et al., 2021), as well as psychological characteristics like emotional intelligence (Ezzi et al., 2023), narcissism (Lin et al., 2022), humility (Sun et al., 2021), reflective capacity (Jia et al., 2021) and overconfidence (Lee, 2021).

Finally, we employed the established coding scheme to code all 139 relevant articles in the sample. Through this process, it became evident that the studies could be classified into four categories: (1) the relationship between CEO compensation and environmental performance, (2) the relationship between CEO compensation and environmental disclosure, (3) the relationship between CEO characteristics and environmental performance and (4) the relationship between CEO characteristics and environmental disclosure. Subsequently, the pertinent articles were categorized according to this classification. Figure 4 displays word clouds of the most frequently used words in the titles of the articles.

Figure 2.4 Word clouds

2.3 SLR results

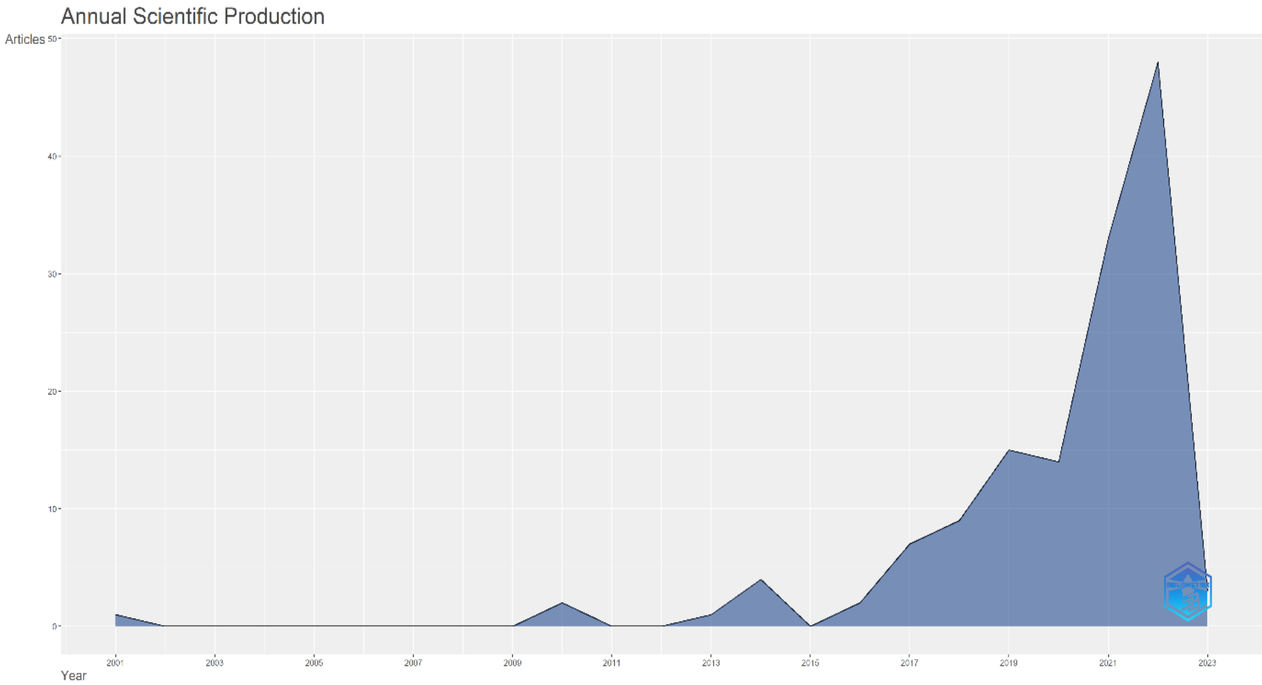
2.3.1 Journal outlets and descriptive analysis

After conducting a comprehensive review of the empirical literature on the relationship between CEOs and environmental sustainability, our analysis revealed a number of insights into the research gaps in this field. To gain a broad perspective of the current state of research on this topic, we focused on two key aspects.

Figure 1 displays the distribution of articles on CEOs and environmental sustainability across 74 different journals, with the largest representation being in the journals Business Strategy and the Environment (16 papers), Sustainability (13 papers) and Journal of Business Ethics (10 papers). However, it is also noted that there are 59 journals that each only have one article on this topic, indicating a lack of concentration in any particular journal. The earliest research in this area is the quantitative study by Stanwick and Stanwick (2001) on the relationship between CEO compensation and the firm's reputation in regard to its commitment to the community and environment. Additionally, there are 21 highly influential papers in this field, each with more than 50 citations on Google Scholar, such as Lewis et al. (2014 [274 citations]) and Li et al. (2018 [160 citations]).

Second, with respect to the year of publication, our analysis reveals that the number of research publications on CEOs and environmental sustainability has steadily increased over time. In particular, there were 15 publications in 2019, 14 in 2020, 33 in 2021 and 48 in 2022. This increasing trend can likely be attributed to growing concern over environmental degradation and climate change, which have prompted interest from both academics and practitioners in finding sustainable solutions. The historical development of research on this topic is depicted in Figure 5.

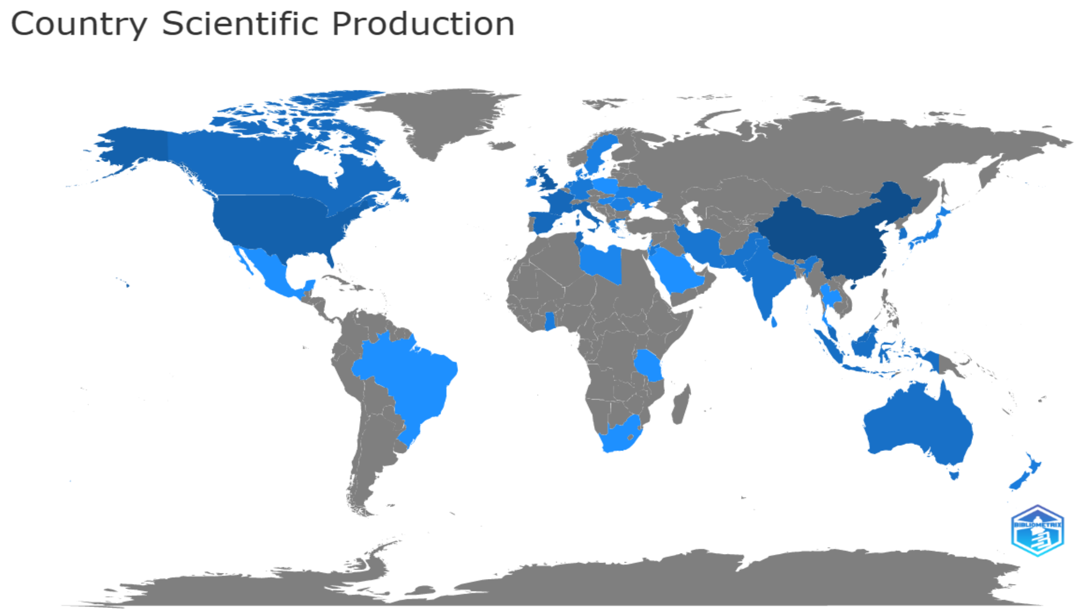
Figure 2.5 Annual scientific production



2.3.2 Geographical focus

In terms of geographical distribution, the analysis reveals that the majority of empirical studies on the association between CEOs and environmental sustainability were conducted in China, accounting for 27% (37 out of 139 total) of the literature. The United States had the second highest number of publications, with 25 (18%) studies, followed by 20 (14%) studies that focused on global samples. The United Kingdom had seven studies, while seven other studies were based on samples from India and Pakistan. Nine publications were distributed between Australia, Sweden, Italy, France, Denmark and Germany, with only five publications focusing on African countries. There was limited research conducted in developing countries in Asia and South America, and Oceania received even less attention. To deepen our understanding of the link between CEOs and environmental sustainability, future research should focus on underrepresented regions and explore the possibility of comparative analysis between various regions. Figure 6 illustrates the distribution of research based on geographical locations.

Figure 2.6 Country scientific production



2.3.3 Research methods employed.

With regards to the research methodologies adopted in previous studies, it has been noted that the majority (129 studies) adopted a quantitative approach. These studies conducted quantitative analysis to investigate the relationships between CEO characteristics and either firms' environmental performance or environmental disclosure, utilizing regression analysis. As there is a growing interest in environmental sustainability by governments and organizations across various industries, it would be beneficial for scholars to consider adopting qualitative approaches, such as interviews and case studies, in their research efforts to examine the relationship between CEOs and environmental sustainability. Furthermore, future research can leverage mixed-method studies to gain a comprehensive and insightful empirical understanding of the topic, thereby ensuring that the conclusions reached are theoretically valid.

2.3.4 Theoretical underpinning and empirical findings

Regarding the theoretical basis of previous studies on CEO and environmental sustainability, 25% of the studies utilized the upper echelons theory, while 24% employed multiple theories. The Agency Theory and studies lacking a theoretical foundation were each represented in 16 studies. The remaining studies utilized various theories, highlighting the interdisciplinary nature of the research.

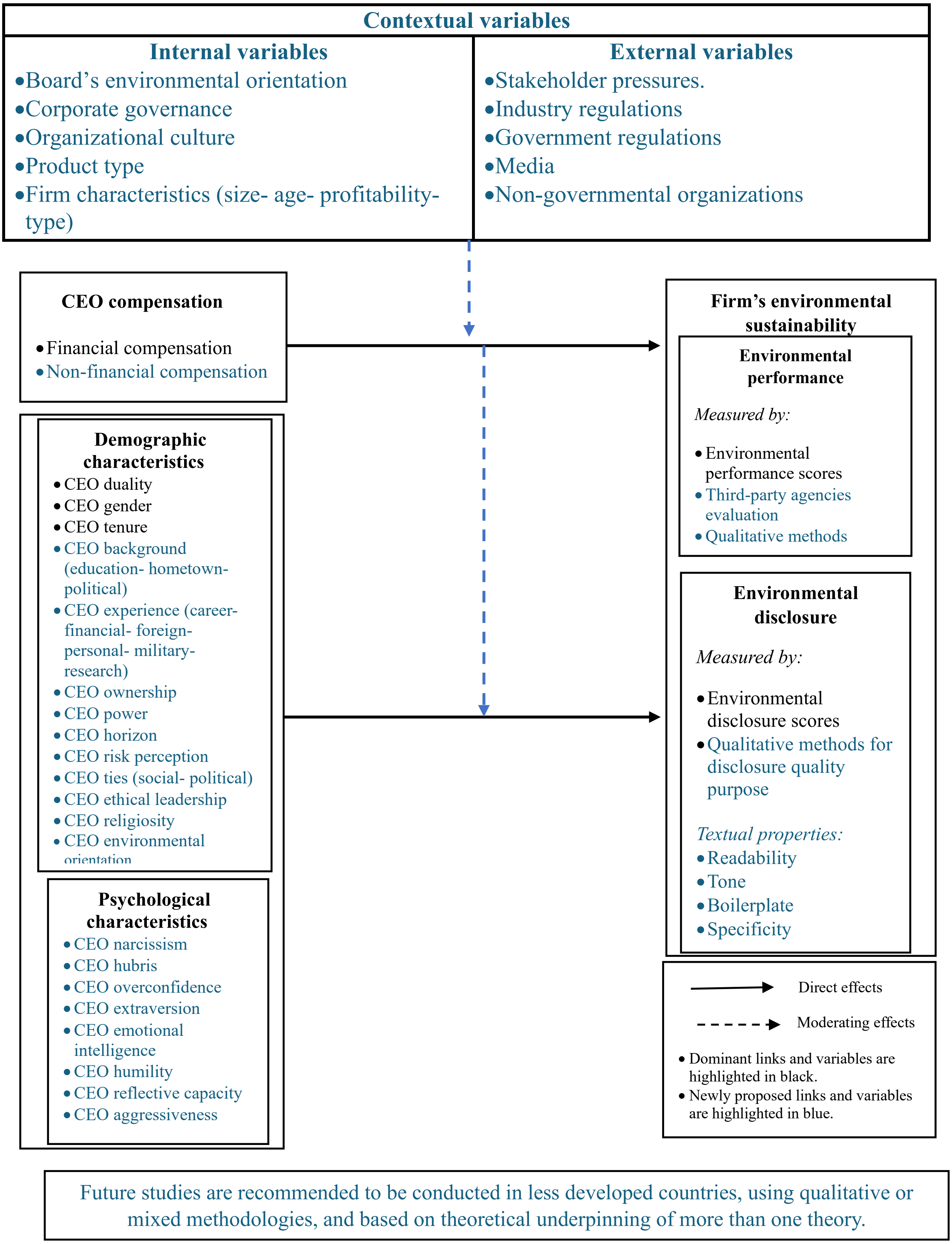
The analysis reveals gaps in the literature. Firstly, there is inconsistency in the theoretical frameworks used, with only a quarter of the studies relying solely on the upper echelons theory. This lack of consistency hinders the direction and findings of future research. Secondly, there is a need for more comprehensive research using alternative theories beyond the upper echelons theory to enhance the understanding of the CEO and environmental sustainability relationship.

Empirical findings show that the majority of articles focused on the relationship between CEO demographic characteristics and the firm's environmental performance or disclosure, with limited attention given to the CEO's psychological characteristics in only 18 studies. Moreover, 74% of the studies examined the impact on environmental performance and innovation, while 23% explored environmental disclosure. Only 1% focused on the CEO's disclosure style. To address these gaps, future studies could investigate the impact of CEO psychological characteristics and consider the attributes of environmental disclosure, such as tone, readability, boilerplate, and specificity, and how they may vary based on CEO characteristics.

2.3.5 Thematic Analysis: A Research Framework of CEO and Environmental Sustainability Relationship

The research on the relationship between CEOs and environmental sustainability necessitates further examination to address remaining questions and research gaps. To enhance understanding, we present a framework derived from a systematic review of 139 pertinent studies. The goal is to leverage these findings, identify future research areas, and contribute to both theoretical and practical implications. This section provides a synthesis of the existing research, offering a comprehensive overview of the key relationships outlined in our proposed framework (Figure 7).

Figure 2.7 A research framework for the links between CEO and firm's environmental sustainability



2.3.5.1 CEO compensation and environmental performance

A total of 22 empirical studies have explored the relationship between CEO compensation and environmental sustainability, with most of these studies (18) focusing on the link between CEO compensation and firms' environmental performance, while only 4 studies considered the impact of the environment and pollution on compensation. The studies mainly concentrate on monetary components of CEO compensation, while non-monetary elements such as community standing, social respect, prestige and living environment are given less attention.

Existing literature provides evidence on the relationship between executive compensation and environmental responsibility as presented in Table 2.1 Several studies, including Adu et al. (2022b), Al-Shaer et al. (2023) and Stanwick and Stanwick (2001), have found a positive correlation between CEO compensation and both environmental initiatives and a firm's environmental reputation. Conversely, Cavallaro et al. (2018) revealed that regulated utility markets do not consistently provide higher compensation for reducing GHG emissions. In addition, Francoeur et al. (2017) discovered that environmentally friendly companies tend to offer relatively lower total compensation to their CEOs, relying less on incentive-based pay structures. This negative relationship is more pronounced in countries with weaker environmental regulations. Zhang and Zhang (2022) reported a threshold effect, indicating a U-shaped pattern in the relationship between executive compensation and corporate environmental responsibility. Beyond a certain threshold, executive compensation promotes corporate environmental performance.

However, it is worth noting that the literature on the relationship between pollution, the environment and CEO compensation is relatively limited, with only four publications exploring this area. Chan et al. (2022) found a positive correlation between air pollution and CEO compensation, suggesting that companies in regions with unhealthy air quality tend to offer higher pay to their CEOs. Deng and Gao (2013) also reported similar results, where companies located in areas with high crime rates or unpleasant environments provided higher compensation.

Despite these findings, it is important to acknowledge the need for a more comprehensive examination of CEO compensation, including both monetary and non-monetary benefits. Additionally, exploring the influence of contextual factors such as state regulations, stakeholder pressure, industry effects and organizational culture would provide a more holistic understanding of compensation policies.

Table 2.1 CEO compensation and environmental performance studies

Article	Title	Journal	Country	Theory	Research method	Findings summary
Francoeur et al. (2017)	Green or Greed? An Alternative Look at CEO Compensation and Corporate Environmental Commitment	Journal of Business Ethics	Global	Stewardship, Institutional	OLS regression	Environmentally responsible companies pay their CEOs less compensation package and depend less on incentive-based remuneration than environmentally unconcerned companies.
Cavallaro et al. (2018)	Decarbonizing the boardroom? Aligning electric utility executive compensation with climate change incentives	Energy Research and Social Science	USA	Agency	Case study	The regulated utility market does not regularly reward CEOs with increased pay for reducing GHG emissions.
Hossain et al. (2022)	Firm-Level Climate Change Risk and CEO Equity Incentives	British Journal of Management	USA	Compensating wage differential	OLS regression	CEOs who lead companies that face a higher level of climate change risk receive more equity-based pay.
Zhang and Zhang (2022)	The Threshold Effect of Executive Compensation on Corporate Environmental Responsibility: Based on the Moderating Effect of Industry Competition	Sustainability	China	ERG, Upper echelons	OLS regression	The influence of CEO remuneration on corporate environmental responsibility has a U-shaped threshold effect, which means that executive remuneration only promotes corporate environmental responsibility after crossing a specific threshold.
Adu et al. (2022a)	Carbon performance, financial performance, and market value: The moderating effect of pay incentives	Business Strategy and the Environment	UK	Neo-Institutional	OLS regression	CEO pay has a favourable moderating influence on the relationship between carbon performance and financial performance.
Winschel J. (2021)	Climate change policies and carbon-related CEO compensation	Journal of Global Responsibility	Global	Stakeholder, Agency	Content analysis	Carbon objectives are mostly used to establish short-term remuneration. Furthermore, carbon-

	systems: an exploratory study of European companies					related CEO compensation is almost equally prevalent among carbon-intensive and non-carbon-intensive businesses.
Al-Shaer et al. (2023)	CEO power and CSR-linked compensation for corporate environmental responsibility: UK evidence	Review of Quantitative Finance and Accounting	UK	Stakeholders, Managerial power	Multivariate regression	CEOs who are compensated for their participation in environmental initiatives are encouraged to enhance environmental performance.

2.3.5.2 CEO compensation and environmental disclosure

The existing research on the relationship between CEO compensation and environmental disclosure is limited, but several studies have made attempts to explore this area, as summarized in Table 2.2 Adu et al. (2022b) found a positive influence of CEO compensation on environmental disclosure in the banking sector, with the relationship being moderated by corporate governance mechanisms. Similarly, Suttipun (2021) reported a positive correlation between CEO compensation and ESG disclosure. Conversely, Rath et al. (2020) discovered that a transparent process of ESG disclosure is associated with a reduction in CEO compensation. Additionally, Al-Shaer and Zaman (2019) found that the presence of external assurance on environmental reporting positively impacts the inclusion of sustainability clauses in compensation contracts. These findings underscore the importance of considering the role of environmental disclosure in understanding the relationship between CEO compensation and environmental sustainability. However, further research is necessary to fully comprehend the complex interplay among these variables.

In conclusion, the analysis of the relationship between CEO compensation and environmental disclosure in the reviewed studies reveals a significant gap in the current literature. The existing studies often overlook various dimensions of disclosure, such as textual characteristics (e.g., readability, tone, boilerplate, and specificity). Furthermore, the prevalent use of quantitative measures and disclosure scores poses limitations in capturing the comprehensive quality and specific attributes of disclosure policies. To address these gaps, future research should adopt a qualitative approach to gain a deeper understanding of the determinants and extent of environmental disclosure practices.

Table 2.2 Studies on CEO compensation and environmental disclosure

Article	Title	Journal	Country	Theory	Research method	Findings summary
Rath (2020)	CEO Compensation and Firm Performance: The Role of ESG Transparency	Indonesian Journal of Sustainability Accounting and Management	India.	Agency, stakeholder	Multivariate regression	Scores for environmental and governance disclosure have the potential to strengthen the unfavourable link between business performance and CEO remuneration.
Suttipun (2021)	The influence of board composition on environmental, social and governance (ESG) disclosure of Thai listed companies.	International Journal of Disclosure and Governance	Thailand	Agency	Multivariate regression	There is a positive association between CEO compensation on ESG disclosure.
Adu et al. (2022a)	Executive compensation, environmental performance, and sustainable banking: The moderating effect of governance mechanisms	Business Strategy and the Environment	Global	Agency	OLS regression	CEO compensation raises sustainable banking disclosures.
Al-Shaer and Zaman (2019)	CEO Compensation and Sustainability Reporting Assurance: Evidence from the UK	Journal of Business Ethics	UK	Agency, Stakeholder	Logistic regression	The inclusion of sustainability elements in pay contracts is positively and significantly associated with sustainability reporting assurance.

2.3.5.3 CEO characteristics and environmental performance

In our research pool, studies on CEO characteristics and firms' environmental performance are more prevalent compared to studies on CEO compensation or the link between CEO characteristics and firms' environmental disclosure (Kouaib et al., 2020). Scholars recognize that the characteristics of corporate leaders significantly influence firm performance, making it crucial to examine these characteristics for understanding performance disparities among firms (Xu et al., 2022). Consequently, researchers have focused on investigating the impact of various CEO characteristics on environmental performance.

The measurement of environmental performance within corporations remains a subject of debate (Kouaib et al., 2020). Three methods have been identified for measuring corporate environmental performance: analysis of annual reports, collection of information through questionnaires, and evaluation of data from independent rating agencies (Xu et al., 2022). Comparing data from ratings to information from surveys and annual reports improves data collection, research transparency and repeatability (Xu et al., 2022).

Among the analysed articles, a significant portion (102 publications, 73%) explores the impact of CEO characteristics on firms' environmental performance (Ahn, 2020; Jia et al., 2021). The predominant approach to measure firms' environmental performance is through environmental performance and responsibility scores. These scores consider various environmental concerns and trends, as well as the company's exposure to these challenges. Qualitative analysis of formalized strategies and segmentation of business areas contribute to score calculation (Jia et al., 2021). Environmental concerns incorporated in the index encompass the adoption and operation of environmental protection facilities, disclosure of pollutant concentration, quantity and destination, disclosure of environmental objectives, policies and effects, and disclosure of total annual resource consumption (Ahn, 2020).

While the use of independent rating agencies and questionnaires with corporate responsible parties as measures of environmental performance receives less attention, alternative methods have been employed. For instance, Papagiannakis and Lioukas (2018) utilized a questionnaire approach, seeking input from executives responsible for environmental decisions to gauge their companies' engagement in six elements of environmental performance.

The studies by Arena et al. (2018) and Liao and Long (2018) focused on environmental innovation and eco-friendliness, using the environmental product innovation score. Ren et al. (2021), Wang et al. (2022) and Zhou et al. (2021) examined green innovation through the analysis of corporate patent filing data. Adu et al. (2022b), Elsayih et al. (2020) and Garel and Petit-Romec (2022) evaluated environmental performance based on carbon emission intensity, considering the emissions produced by larger companies. In contrast, Al-Shaer et al. (2023) employed a multi-faceted approach, incorporating measures such as environmental pillar scores, emission scores and a composite environment index to assess companies' environmental practices.

In conclusion, while current research focuses on evaluating firms' environmental performance using scores, there is a need for future studies to consider alternative measurement methods and a more holistic approach. This includes exploring CEO characteristics, both demographic and psychological, to better understand their impact on environmental outcomes. Additionally, incorporating third-party assessments and involving responsible parties within corporations can enhance research reliability. By integrating diverse approaches, we can advance our understanding of the relationship between leadership and environmental performance, leading to more effective sustainability strategies.

CEO demographic characteristics and environmental performance

Over the years, the field of research on CEO characteristics has grown significantly, and the impact of these characteristics on various topics has been widely explored, particularly in the management literature (Al-Shaer et al., 2022). Studies have investigated the effects of CEO characteristics on outcomes such as firm performance, risks, earnings management, audit quality, and disclosure (Abernethy et al., 2019; Alhmood et al., 2020; Campbell et al., 2019; Saleh et al., 2020). Our review of the literature shows that a substantial number of empirical studies examine the relationship between firms' environmental performance and CEO demographic characteristics such as CEO tenure, duality, background, gender, age, and connections as stated in Table 2.3 The impact of CEO duality on environmental performance is the most widely studied, with 19 publications focusing on this topic. Meanwhile, 8 studies investigate the impact of CEO education, 11 studies focus on the impact of CEO gender, 7 studies look into the impact of CEO power, and 4 studies examine the impact of CEO tenure. Other demographic characteristics, such as the CEO's environmental orientation, activism, ethical leadership, regulatory focus, independence, risk perception, and awareness of consequences, have received relatively little attention from researchers.

Table 2.3 Sample of studies on CEO demographic characteristics and environmental performance

Article	Title	Journal	Country	Theory	Research method	Findings summary
Sumarta et al. (2021)	CEO characteristics and environmental performance: Evidence from Indonesian banks	International Journal of Business and Society	Indonesia	Agency, Upper echelons	Panel data regression	CEO international experience has a favourable impact on environmental performance. Furthermore, CEO gender, age, and educational background have no influence on environmental performance in Indonesian banks, however CEO nationality and foreign education have a negative effect.
Peng and Zhang (2022)	Corporate governance, environmental sustainability performance, and normative isomorphic force of national culture	Environmental Science and Pollution Research	USA	Agency	Multiple regression	There is a negative association between CEO duality and environmental sustainability performance.
Zhu et al. (2022)	Gender Diversity and Firms' Sustainable Performance: Moderating Role of CEO Duality in Emerging Equity Market	Sustainability (Switzerland)	Pakistan	Agency	Panel data regression	Female directors on boards and female CEOs have a considerable favourable influence on environmental performance, although CEO duality has no effect on this connection. Furthermore, CEO duality has a significant negative influence on firms' long-term performance
Narsa (2022)	Corporate governance: Does it matter management of carbon emission performance? An empirical analysis of Indian companies	Journal of Cleaner Production	India	Agency	Multiple regression	There is a negative relationship between CEO duality and corporate carbon emission performance.
Velte (2019)	Does CEO power moderate the link between ESG performance and financial	Management Research Review	Germany	Stakeholder, Upper echelons	Multivariate regression	There is a positive impact of ESG performance on financial performance, and this link is more pronounced by CEO power.

	performance? A focus on the German two-tier system					
Al-Shaer et al. (2023)	CEO power and CSR-linked compensation for corporate environmental responsibility: UK evidence	Review of Quantitative Finance and Accounting	UK	Stakeholder, Managerial power	Multivariate regression	Newly appointed CEOs are more involved in environmental initiatives, but CEOs with managerial power are less involved in environmental activities due to the expenses involved.
Shahab et al. (2020)	Chief executive officer attributes, sustainable performance, environmental performance, and environmental reporting: New insights from upper echelons perspective	Business Strategy and the Environment	China	Upper echelons	Panel and probit regression	CEOs with a research background and international experience are more likely to engage in initiatives that increase environmental performance. In addition, CEOs with financial expertise are associated with improved long-term success and environmental reporting.
Zhou et al. (2021)	Can CEO education promote environmental innovation: Evidence from Chinese enterprises	Journal of Cleaner Production	China	Upper echelons	Multivariate regression	Highly educated CEOs are more likely to participate in environmental innovation, particularly if businesses operate in areas with rigorous environmental regulations.
Khalid et al. (2022)	Carbon disclosure project: Chinese chief executive officer background and corporate voluntary climate change reporting	Carbon Management	China	Upper echelons	Logistic regression	CEOs with academic backgrounds, international experience, and political ties influence corporations' decisions to engage environmental activities.
Ren et al. (2021)	CEO hometown identity and firm green innovation	Business Strategy and the Environment	China	Upper echelons	Regression	There is a positive link between CEO hometown identity and a firm's environmental innovation performance.
Liao et al. (2018)	CEOs' regulatory focus, slack resources and	Corporate Social Responsibility and	China	Upper echelons	Questioners	CEO's promotion focus has a positive influence on firm's environmental processes, whereas a

	firms' environmental innovation	Environmental Management				CEO's prevention focus has a negative influence.
Wang et al. (2022)	CEO foreign experience and corporate sustainable development: Evidence from China	Business Strategy and the Environment	China	Upper echelons	OLS regression	CEO foreign experience has a positive impact on firm green innovation.
Birindelli et al. (2019)	The impact of women leaders on environmental performance: Evidence on gender diversity in banks	Corporate Social Responsibility and Environmental Management	Global	Upper echelons	Panel regression	There is relationship between female CEOs and the environmental performance.

The relationship between CEO duality and firms' environmental performance has been widely studied, with most research indicating a negative association (Goud, 2022; Lu & Wang, 2021; Peng & Zhang, 2022; Romano et al., 2020; Zhu et al., 2022). Zhu et al. (2022) found a positive impact of gender diversity on board and female CEOs on environmental performance, but CEO duality was found to have a negative impact, aligning with agency theory (Romano et al., 2020). Shahab et al. (2022) found no correlation between CEO duality and waste production, while Khan et al. (2021) discovered a positive correlation between CEO duality and environmental performance among Chinese firms.

Regarding CEO demographic attributes, the literature presents conflicting evidence. Sumarta et al. (2021) found no significant effect of CEO gender on environmental performance in Indonesian banks, while Birindelli et al. (2019) and Lu and Wang (2021) argue that female CEOs contribute positively to environmental sustainability. CEO education, power and tenure have also been studied. Sumarta et al. (2021), Tran and Pham (2020), Wang et al. (2022) and Xia et al. (2022) suggest that higher education levels are associated with greater investments in environmental protection. However, Al-Shaer et al. (2022) found that CEOs with more managerial power engage less in environmental programmes due to associated costs. Aibar-Guzmán and Frías-Aceituno (2021) and Javeed et al. (2021) discovered a positive relationship between CEO power and environmental performance.

Less explored CEO demographic attributes include religion, foreign experience and political ties. Ren et al. (2020) found that CEO ethical leadership moderates the relationship between green human resource management and environmental performance. Iguchi et al. (2022) observed a correlation between CEO religiosity and green business activities. Liao and Long (2018) found that CEOs with a promotion focus positively impact environmental operations, while prevention focus has a negative impact, while Khalid et al. (2022) and Quan et al. (2021) established a positive relationship between CEO foreign experience and green innovation. Furthermore, Shahab et al. (2020) found that CEOs with financial expertise, research background and a younger age are more likely to adopt measures enhancing environmental performance. On the other hand, Huang et al. (2021), Khalid et al. (2022) and Zhang (2017) indicate that CEOs with stronger political ties tend to promote more green innovation within their organizations. These studies suggest that political connections can play a role in influencing environmental initiatives and driving sustainable practices. Meanwhile, Ahn (2020) examined the relationship between CEO attention breadth, driven by social ties, and sustainability performance. The study found that a higher number of social ties positively affect attention breadth, which, in turn, has a positive impact on sustainability performance. This suggests that CEOs who maintain a wide range of social connections are more likely to prioritize and enhance sustainability efforts within their organizations.

In conclusion, the literature indicates a mixed relationship between CEO characteristics and firms' environmental performance. While CEO duality is often associated with a negative impact on environmental performance, gender diversity on boards and female CEOs shows a positive influence. CEO demographic attributes such as gender, education, power and tenure yield conflicting results. Less explored attributes like religion, foreign experience and political ties demonstrate potential positive effects on green innovation. Additionally, the breadth of social ties positively affects CEO attention breadth and sustainability performance. Overall, further research is needed to better understand these relationships and explore other CEO attributes contributing to environmental sustainability.

CEO psychological characteristics and environmental performance

The examination of CEO psychological characteristics is essential for understanding CEO behaviour and obtaining a comprehensive view of company leadership. Existing literature (Ernawan & Daniel, 2019; Jia et al., 2021; Lin et al., 2022; Lu et al., 2022) supports the significance of studying these attributes. However, research on the impact of CEO psychological characteristics on a company's environmental performance is limited (see table 2.4). The available studies primarily focus on CEO hubris, overconfidence and narcissism. Our analysis of empirical studies in our sample reveals a limited number of investigations into the impact of CEO psychological traits on environmental performance. CEO narcissism, hubris and overconfidence were each explored in three studies, while other traits such as aggressiveness, extraversion, emotional intelligence, humility and reflective capacity were examined in only one study each. This limited scope emphasizes the need for further exploration of the relationship between CEO psychological traits and environmental performance. To deepen our understanding, it is crucial to expand current research and investigate the impact of these other traits on environmental performance.

Table 2.4 Sample of studies on CEO psychological characteristics and environmental performance

Article	Title	Journal	Country	Theory	Research method	Findings summary
Hrazdil et al. (2021)	Executive personality and sustainability: Do extraverted chief executive officers improve corporate social responsibility?	Corporate Social Responsibility and Environmental Management	USA	Upper echelons	Regression	Business led by extraverted CEOs' have higher environmental and social performance.
Lin et al. (2021)	The eco-friendly side of narcissism: The case of green marketing	Sustainability Development	China	Upper echelons	Questionnaires	Narcissistic CEOs are associated with higher level of corporate environmental marketing program.
Lin et al. (2022)	Impact of CEO narcissism and hubris on corporate sustainability and firm performance	North American Journal of Economics and Finance	Taiwan	Upper echelons	Regression	In comparison to narcissistic CEOs, hubristic CEOs will have a greater favourable impact on business sustainability performance, particularly in the environmental and social dimensions.
Lee and Kim (2021)	Would overconfident CEOs engage more in environment, social, and governance investments?	Sustainability (Switzerland)	South Korea	Upper echelons	OLS regression	Overconfident CEOs are more likely to participate in ESG investments. Furthermore, the negative relationship

	With a focus on female representation on boards					between CEO overconfidence and firm value is minimised in firms with high ESG investments. Finally, the impact of CEO overconfidence on corporate value is unique in firms with female board participation.
Ezzi et al. (2022)	Exploring the relationship between managerial emotional intelligence and environmental performance in energy sector: a mediated moderation analysis	International Journal of Energy Sector Management	Tunisia	Behavioural	Questionnaires	There is positive impact of CEOs' emotional intelligence on the R&D, energy and recycling. Furthermore, the diversification strategy impacts the function of CEOs' emotional intelligence in providing justifications for R&D investments in the Tunisian energy sector's environmental challenges.
Jia et al. (2021)	Beyond Bounded Rationality: CEO Reflective Capacity and Firm Sustainability Performance	Management and Organization Review	China	Upper echelons	Multivariate regression	The importance of CEO reflective capability for business sustainability performance is aligned with the view that sustainability, which involves conflicts between complex economic, environmental, and social challenges, necessitates complex cognitive frameworks for executives.
Shin et al. (2022)	CEO facial masculinity, fraud, and ESG: Evidence	Emerging Markets Review	South Korea	Upper echelons	OLS regression	We find that firms with well-designed ESG practices are less

	from South Korea		likely to experience masculine-faced CEOs' fraud than those with poor ESG practices.

Empirical evidence on the relationship between CEO narcissism and environmental performance is inconsistent, with some studies (Lin et al., 2021; Lin et al., 2022) suggesting a positive association, while others (Abatecola & Cristofaro, 2019) indicate a negative impact. Similarly, findings on CEO hubris are contradictory, as some studies (Arena et al., 2018) propose a positive relationship, while others (Abatecola & Cristofaro, 2019) report a detrimental effect. However, Lin et al. (2022) suggest that CEO hubris may enhance the positive effects of corporate sustainability strategies on firm performance in environmental and social aspects. These contrasting results underscore the complexity and nuances of the relationship between CEO psychological traits and environmental performance, calling for further research to gain a comprehensive understanding.

In the field of corporate environmental outcomes, the influence of CEO psychological traits on environmental performance has gained limited attention in academic literature. However, several studies provide valuable insights in this regard. Lee and Kim (2021) emphasized the role of overconfident CEOs in driving environmental initiatives, particularly in companies with higher levels of female board representation. Meanwhile, Sun et al. (2021) found a positive association between CEO humility and green innovation, indicating the importance of this trait in fostering environmental initiatives. Shah et al. (2021) focused on CEOs exhibiting hierarchical and cognitive leadership traits, highlighting their emphasis on enhancing environmental responsibility and implementing innovative strategies. Meanwhile, Ezzi et al. (2023) suggested that CEOs with high emotional intelligence have a beneficial impact on the interaction between research and development, energy, and recycling in the Tunisian energy sector. Hrazdil et al. (2021) found that firms led by extraverted CEOs tend to perform better in terms of environmental and social outcomes. Furthermore, Kim et al. (2022) explored the impact of CEO facial masculinity on ESG practices, indicating that companies with effective ESG measures are less susceptible to deception by masculine-faced CEOs.

Through synthesizing these studies, it becomes evident that CEO psychological traits play a crucial role in shaping corporate environmental outcomes. Overconfidence, humility, leadership traits, emotional intelligence, extraversion, and facial masculinity all have varying impacts on environmental initiatives and performance.

2.3.5.4 CEO characteristics and environmental disclosure

The importance of CEOs in shaping corporate environmental practices has gained significant attention due to the growing significance of environmental sustainability (Oware & Awunyo-Vitor, 2021). Understanding the role of CEOs in this context is crucial. It is equally important to examine the impact of CEO characteristics on corporate environmental disclosure. This section provides an overview of the research on this topic, including the categorization of CEO traits into demographic and psychological characteristics. Additionally, this section aims to assess the current state of research and identify potential gaps in the field.

CEO demographic characteristics and environmental disclosure

The impact of CEO demographic traits on various communication channels, including financial reports, auditor reports, and media, has been the subject of previous research. However, the effect of these traits on corporate environmental disclosure has not received as much attention (Lee, 2021). The majority of the literature (17 articles) in this field focuses on the effect of CEO duality on environmental disclosure, with a smaller number of studies exploring the impact of CEO tenure. Other demographic characteristics such as gender, education, power, social ties, and background have received limited attention.

The findings of studies on the relationship between CEO duality and environmental disclosure have been inconsistent. While some studies support the conclusion that CEO duality has no significant impact on environmental disclosure (Kumari et al., 2022; Lagasio & Cucari, 2019; Pasko et al., 2021), others have found a positive relationship between duality and environmental disclosure in Indian family-controlled firms (Oware & Awunyo-Vitor, 2021). On the other hand, a number of studies have reported a negative relationship between CEO duality and environmental reporting (Hamidah & Arisukma, 2020; Husted & de Sousa-Filho, 2019; Lagasio & Cucari, 2019; Nuskiya et al., 2021).

The impact of CEO tenure, power, gender, background, and experience on environmental disclosure has received limited attention in the literature. However, some studies have explored these relationships and produced noteworthy results as described in Table 2.5 Li et al. (2018) found that stronger CEO power can enhance the relationship between environmental disclosure and firm value, suggesting that stakeholders view environmental disclosure from companies with more powerful CEOs as a stronger commitment to environmental practices.

Table 2.5 Sample of studies on CEO demographic characteristics and environmental disclosure

Article	Title	Journal	Country	Theory	Research method	Findings summary
Oware et al. (2022)	Female and environmental disclosure of family and non-family firms. Evidence from India	Management Research Review	India	Gender socialization, Critical mass, Legitimacy	Panel regression	Female CEOs and CEO duality have a positive association with corporate environmental disclosure in a family-controlled firm, but this does not exist in non-family-controlled firms.
Amran et al. (2014)	Determinants of Climate Change Disclosure by Developed and Emerging Countries in Asia Pacific	Sustainable Development	Global	Agency	Multiple regression	CEO-board chair role linked with an increase the climate change disclosure.
Oware et al. (2021)	CEO characteristics and environmental disclosure of listed firms in an emerging economy: Does sustainability reporting format matter?	Business Strategy and Development	India	Institutional, Stakeholder	Panel regression	CEO age and tenure have no impact on with environmental disclosure, but CEO duality has a negative association effect.
Giannarakis et al. (2014)	Financial, governance and environmental determinants of corporate social responsible disclosure	Management Decision	USA	Legitimacy	Least squares dummy variable model	CEO duality has a negative impact on the extent of ESG disclosure.
Razali et al. (2016)	Does CEO characteristics play important role on Malaysian firms' environmental disclosure?	International Journal of Business Research	Malaysia	Upper echelons	Multiple regression	CEOs who have spent a long time in the business and CEOs with legal backgrounds may be less willing to take the risk of disclosing environmental information.

Lagasio and Cucari (2019)	Corporate governance and environmental social governance disclosure: A meta-analytical review	Corporate Social Responsibility and Environmental Management	Global		Meta analysis	Female CEOs enhance ESG voluntary disclosure, while CEO duality do not improve the ESG disclosure level.
Lewis et al. (2014)	Difference in degrees: CEO characteristics and firm environmental disclosure	Strategic Management Journal	USA	Institutional	Questionnaire	Firms with MBA CEOs are much more likely to disclose environmental information than other firms. On the other hand, firms run by CEOs with legal educations are more likely to resist disclosure constraints.

On the other hand, several studies have explored the relationship between CEO characteristics and environmental disclosure. Razali et al. (2016) found a negative effect of CEO tenure and CEO legal education on environmental disclosure. In contrast, Lagasio and Cucari (2019) discovered a positive association between women CEOs and better environmental voluntary disclosure, while CEO ownership did not show a significant impact. Meanwhile, Lewis et al. (2014) also suggested that CEOs with MBA degrees or those who were recently recruited were more likely to disclose. Overall, these findings underscore the importance of CEO attributes in shaping environmental disclosure practices, but further synthesis is needed to explore underlying mechanisms and moderating factors.

CEO psychological characteristics and environmental disclosure

While the majority of studies in the field of environmental disclosure have focused on the impact of CEO demographic characteristics, there has been limited examination of the relationship between CEO psychological characteristics and environmental disclosure as displayed in Table 2.6 As such, the influence of psychological traits on CEO decision-making regarding disclosure has been overlooked. Recent studies, such as Dabbebi et al. (2022), have found that CEO narcissism is positively associated with ESG disclosure. Furthermore, Lee (2021) found that CEO overconfidence is favourably linked to voluntary disclosure of GHG emissions. These findings suggest that there is a need for further research to delve into the relationship between CEO psychological characteristics and environmental disclosure.

Table 2.6 Studies on CEO psychological characteristics and environmental disclosure

Article	Title	Journal	Country	Theory	Research method	Findings summary
Dabbebi et al. (2022)	Peering through the smokescreen: ESG disclosure and CEO personality	Managerial and Decision Economics	USA	Upper echelons	OLS regression	CEOs with higher levels of narcissism are more likely to disclose their ESG activities.
Lee (2021)	CEO overconfidence and voluntary disclosure of greenhouse gas emissions: With a focus on the role of corporate governance	Sustainability (Switzerland)	South Korea	Upper echelons	Logistic regression	CEO overconfidence is favourably associated with voluntary disclosure of greenhouse gas emissions.

2.4 Discussion and future research avenues

Despite the progress made in the field of environmental sustainability and CEO interactions, there are several gaps that need to be addressed by future research. The limitations and suggestions of the association between CEO and environmental sustainability are addressed in this section.

2.4.1 Theories

In the reviewed studies, the upper echelons theory was utilized in 25% of cases, while 24% employed a combination of theories. However, many studies lacked clear explanations of how these theories were applied to their empirical findings. To improve the quality of research, it is advisable for future studies to adopt a well-defined theoretical framework and appropriately integrate or compare relevant theories. For CEO characteristics, theories from psychological and sociological perspectives can provide a solid foundation. Employing multiple theories can offer a more comprehensive understanding of CEO behavior and their role in environmental sustainability.

2.4.2 Context

Most studies on the relationship between environmental sustainability and CEOs have focused on developed countries, particularly the US, leaving a gap in representation from developing economies due to limited data accessibility and contextual differences. To address this limitation, future research should prioritize studying less-explored regions and conducting cross-country comparisons, enabling a more comprehensive understanding of the topic.

Considering contextual factors is crucial when examining the CEO-environmental sustainability relationship. While exploring every factor may not be necessary, focusing on relevant ones can enhance the validity and reliability of results. Incorporating a framework, such as Fig. 7, can illustrate the interaction of different factors, including state regulations, stakeholder pressure, industry effects, and organizational culture, which can impact CEO compensation and its relationship with environmental performance and disclosure. Future research should consider these contextual factors to deepen our understanding of the linkages between CEO compensation and environmental sustainability.

Furthermore, there is a noticeable lack of research explicitly addressing the connection between CEOs and corporate environmental sustainability with specific United Nations Sustainable Development Goals (SDGs). Acknowledging the importance of the SDGs as a framework, it is crucial to highlight the existing gap in the literature. The limited exploration of how CEO characteristics and actions align with and contribute to specific SDGs presents an opportunity for further investigation. Future research should aim to bridge this gap by explicitly examining the relationship between CEO behavior and the achievement of sustainability goals outlined by the United Nations. By addressing this research gap, valuable insights can be gained into how CEOs can effectively drive environmental sustainability efforts within organizations and contribute to the broader global sustainability agenda.

2.4.3 Characteristics

Existing research on CEO attributes and environmental sustainability primarily focuses on environmental performance and overlooks environmental disclosure. Furthermore, certain areas within each theme have not been thoroughly explored. For instance, CEO traits like power, backgrounds, experience, environmental orientation, risk perception, ownership, ethical leadership, regulatory focus, and awareness of consequences have not received sufficient attention. Psychological characteristics like overconfidence, extraversion, emotional intelligence, humility, and reflective capacity are also worthy of exploration. Future studies should investigate the impact of these less-researched traits and personality characteristics on CEO behaviour and their role in environmental sustainability performance.

In the light of the environmental disclosure theme, while CEO duality has been extensively studied in relation to environmental disclosure, other important CEO characteristics have been neglected. Moreover, the connection between CEO psychological traits and environmental disclosure remains underexplored. Future research should examine the relationship between CEO demographic and psychological characteristics and corporate environmental reporting. Additionally, studies on environmental disclosure should move beyond quantitative indicators and explore textual properties such as reporting tone, readability, boilerplate, and specificity.

2.4.4 Measurements

While environmental performance scores and responsibility measures have been commonly used, other indicators of environmental performance and disclosure have received less attention. Future studies could adopt less common measurement methods, such as scores from third-party organizations, and incorporate more qualitative techniques like questionnaires with responsible corporate personnel. Additionally, studies on environmental disclosure should go beyond quantitative metrics and disclosure scores to examine the quality and specific attributes of disclosure policies. This qualitative perspective can deepen our understanding of the factors shaping the scope of environmental disclosure.

2.4.5 Methodology

The complexity of CEO behavior and its impact on corporate environmental sustainability necessitates the integration of qualitative or mixed methods alongside quantitative research. While quantitative methods are commonly used, they may not fully capture the nuances of CEO actions. Scholars like Abebe and Acharya (2022), Kilincarslan et al. (2020), and Nuskiya et al. (2021) have recommended the inclusion of qualitative methods such as interviews and surveys to gain a more holistic understanding of the relationship between CEOs and environmental sustainability.

Table 2.7 shows future research directions and suggested research questions classified based on theories, context, characteristics, measurements, and methodology.

Table 2.7 Future research directions

Future research opportunity	Suggested research questions
Theoretical opportunities	• How can agency theory, stewardship theory, and social identity theory be integrated to provide a more comprehensive understanding of the relationship between CEO characteristics and environmental outcomes? • How do different theoretical perspectives explain variations in CEOs' commitment to environmental sustainability across different organizational contexts? • In what ways do these theories intersect or complement each other in explaining CEOs' environmental decision-making processes?
Contextual opportunities	• How does the relationship between CEOs and environmental sustainability differ in developing economies compared to developed economies? • What lessons can be learned from studying the relationship between CEOs and environmental sustainability in diverse contexts? • What contextual factors influence the effectiveness of CEOs' environmental practices and decision-making in different regions and countries? • How does the impact of CEO demographic and psychological characteristics on environmental outcomes differ across industries with varying environmental footprints? • How does CEOs traits impact the integration of environmental considerations into organizational strategy, decision-making, and culture? • What are the mechanisms through which personality traits and ethical leadership influence employee attitudes, behaviours, and organizational outcomes related to environmental sustainability?
Characteristics opportunities	• How do CEO traits such as power, backgrounds, experience, and ethical leadership influence environmental sustainability practices and outcomes? • What is the impact of psychological characteristics like overconfidence, emotional intelligence, humility, and reflective capacity on CEOs' environmental decision-making and behaviour? • How do CEO demographic and psychological characteristics relate to the quality and specific attributes of environmental disclosure? • How do these psychological factors interact with demographic characteristics to shape CEOs' environmental behaviours? • Are there any mediating or moderating mechanisms that explain the relationship between psychological factors and CEOs' environmental practices? • How do CEO traits influence the qualitative aspects of environmental disclosure, such as reporting tone, readability, and specificity? • How do the qualitative characteristics of environmental disclosure, such as reporting tone, readability, and specificity, influence stakeholders' perceptions, trust, and engagement with a company's environmental initiatives? • How do different stakeholder groups interpret and respond to the various aspects of environmental disclosure?
Measurement opportunities	• How do scores from third-party organizations contribute to the assessment of environmental performance and disclosure? • What insights can be gained from using qualitative techniques, such as questionnaires with responsible corporate personnel, to understand environmental practices? • How does the qualitative dimension of environmental disclosure, such as reporting tone, readability, and specificity, shape stakeholder perceptions and behaviours?
Methodological opportunities	• How can the inclusion of qualitative methods, such as interviews and surveys, enhance the understanding of CEO behaviour and its impact on environmental sustainability? • In what ways can mixed methods approaches provide a more comprehensive understanding of the relationship between CEOs and environmental sustainability? • How does the integration of different research methodologies contribute to the validity and reliability of findings in CEO-environmental sustainability research?

2.5 Conclusion

The primary objective of this SLR is to thoroughly analyse the research on CEOs and their effects on corporate environmental sustainability. We aim to understand existing knowledge, identify gaps and propose a framework for future research. Synthesizing 139 publications, we critically examine current research's limitations and contribute to the corporate environmental sustainability literature. Our results highlight gaps in the literature. Studies predominantly focus on environmental performance rather than disclosure. The role of context and less explored CEO traits like personality and ethical leadership are overlooked. Qualitative aspects of environmental disclosure, such as reporting tone and specificity, are also neglected. To address these gaps, future research should consider a broader range of CEO characteristics, adopt a multi-theoretical approach, examine context and include comprehensive environmental disclosure analysis.

This SLR contributes to the literature by providing a comprehensive review, benefiting researchers, practitioners and policymakers. We present suggestions for future research based on country, research method and theoretical framework analysis. Environmental sustainability studies peaked in 2022, indicating growing interest in the field. Our theoretical contribution includes a framework mapping CEO variables and environmental sustainability, identifying knowledge gaps and research objectives. Future studies should incorporate psychological factors alongside demographic traits to understand CEOs' motives behind environmental practices. Additionally, exploring CEO influence, compensations, context, and environmental performance and disclosure measurements offers fruitful research directions.

Our study has several limitations that should be acknowledged. Firstly, the limited number of publications in the field of CEO characteristics and environmental sustainability limits the generalizability of our findings. Secondly, our study focused on environmental performance and environmental disclosure, and other important aspects such as environmental policy, environmental strategy and environmental reporting were not explored. Lastly, we did not consider the potential mediating and moderating effects that could influence the relationship between CEO characteristics and environmental sustainability, which could have significant implications for future research.

Chapter 3

Essay 2

Shaping ESG Commitment through Organizational Psychological Capital: The Role of CEO Power

Abstract

This study investigates the influence of Organizational Psychological Capital (OPC) on corporate Environmental, Social, and Governance (ESG) practices, highlighting a relatively overlooked aspect in existing studies, and examines the moderating effect of Chief Executive Officer (CEO) power on this relationship. Using a dataset of 1,659 firm-year observations from FTSE 350 firms across the years 2012- 2021 and applying Natural Language Processing (NLP) techniques, our findings reveal that higher levels of OPC are linked to a stronger commitment to ESG initiatives. However, this positive association is tempered by CEO power, which negatively moderates the relationship. Furthermore, our analysis shows that OPC not only enhances ESG performance but also positively influences financial performance and the core ESG pillars. These results, validated through rigorous robustness checks, offer significant insights for stakeholders and policymakers in the realm of corporate governance.

Keywords: CEO power; ESG; organizational psychological capital; Resource-Based View (RBV); upper echelons theory; textual analysis.

3.1 Introduction

In today's business landscape, the integration of environmental, social, and governance (ESG) considerations into corporate strategies represents a pivotal shift in how companies make decisions (Bhandari et al., 2022; Mansouri & Momtaz, 2022). This transformation reflects a growing recognition of the need to address stakeholder concerns that extend beyond traditional financial metrics (Bhandari et al., 2022; Gallego-Álvarez & Pucheta-Martínez, 2020). Central to this evolution is the increasing importance of corporate intangible resources in shaping effective business practices (Grözinger et al., 2022). Among these resources, organizational psychological capital (OPC) stands out. Derived from the individual psychological capital of an organization's members (Luthans & Youssef, 2004; McKenny et al., 2013), OPC is deeply rooted in positive organizational behavior research and closely connected to psychological studies (Luthans, 2007; Schmidt & Flatten, 2022; Wang et al., 2014). Defined as the aggregate of positive psychological resources within an organization, OPC includes four essential dimensions: hope, optimism, resilience, and confidence. These attributes are vital for effectively managing and overcoming challenges (McKenny et al., 2013). Unlike human capital, which emphasizes knowledge and skills, or social capital, which focuses on networks, OPC reflects the core psychological attributes of individuals (Luthans et al., 2007).

Despite its potential significance, there is a notable lack of empirical research on the influence of OPC on corporate performance (Anglin et al., 2018a). Most studies have concentrated on traditional factors such as financial resources, physical assets, and organizational processes to explain variations in corporate performance (e.g., Gabler et al., 2023; Orazalin et al., 2024; Porcu et al., 2020). While these studies provide valuable insights, they often overlook the impact of intangible resources in shaping ESG practices (Anglin et al., 2018a; Arregle et al., 2007; Grözinger et al., 2022). Existing studies have mostly focused on corporate executives' traits (e.g., Fabrizi et al., 2014; Huang, 2013; Velte, 2020), corporate governance (e.g., Eliwa et al., 2023; Jain & Zaman, 2020), and corporate characteristics (e.g., Gupta & Briscoe, 2020; Orazalin et al., 2024). This oversight underscores the need for a more nuanced investigation into how OPC can impact corporate behavior and performance, especially in the realm of sustainability, where psychological and intangible resources could play a crucial role.

This study aims to address these gaps by exploring the impact of OPC on ESG practices and examining how chief executive officer (CEO) power moderates this relationship.

Specifically, the research seeks to answer two key questions: (1) *How does OPC impact the commitment to ESG practices?* (2) *To what extent does CEO power influence this relationship?* We investigate our research questions by employing a dataset comprising 1659 firm-year observations from UK companies listed on the FTSE 350 Index over the period of 2012 to 2021. The UK was chosen for its strong emphasis on sustainability practices (Moussa et al., 2023) and its focus on employee engagement, organizational well-being, and positive organizational behavior (Smith & Ulus, 2020), which align with the principles of OPC. Additionally, this choice fills a gap in the literature that has primarily focused on the United States (e.g., Anglin et al., 2018a; McKenny et al., 2013; Memili et al., 2014). Our study employs a state-of-the-art natural language processing (NLP) approach using Python to analyze textual data, guided by the resource-based view (RBV) and upper echelons theory. This approach allows us to create a comprehensive interdisciplinary theoretical framework that guides our analysis. RBV suggests that a company's competitive advantage stems from possessing valuable and rare resources (Barney, 1991), positioning OPC as a unique asset that can enhance ESG practices and sustain competitive advantage. Meanwhile, upper echelons theory posits that CEO attributes influence organizational decisions and resource allocation (Hambrick, 2007; Hambrick & Mason, 1984), affecting how OPC impacts ESG commitment. Our findings indicate that companies with higher levels of OPC are more likely to adopt extensive ESG practices, although CEO power can weaken this relationship. Additionally, OPC correlates positively with improved firm financial performance and the three key ESG pillars, though organizational resilience does not significantly impact ESG practices.

This study makes significant contributions. First, while prior research on corporate performance has focused on firm characteristics, CEO traits, and corporate governance (e.g., Eliwa et al., 2023; Fabrizi et al., 2014; Huang, 2013; Mahran & Elamer, 2024a; Mansouri & Momtaz, 2022; Orazalin et al., 2024), there has been limited investigation into the impact of corporate intangible resources. By addressing this gap, our study is the first to examine the influence of OPC, a relatively underexplored area, on ESG practices, positioning it uniquely within the field. Second, this research advances RBV theory by emphasizing the crucial role of psychological characteristics alongside traditional factors like financial resources, physical assets, and organizational processes (e.g., Gabler et al., 2023; Orazalin et al., 2024; Porcu et al., 2020). By demonstrating how OPC can enhance ESG commitment, we extend RBV to encompass a broader range of factors contributing to sustained competitive advantage. Moreover, our study makes a novel theoretical contribution by integrating RBV with upper echelons. This combined approach provides a comprehensive understanding of how intangible assets and leadership dynamics interact to influence ESG practices. Specifically, it reveals how OPC can drive ESG commitment and how CEO power can shape and amplify this effect, offering a nuanced perspective on the interplay between leadership and intangible assets in shaping sustainability efforts. Third, our study bridges insights from psychology and strategic management to illustrate the dynamic role of OPC in shaping sustainable business strategies. While recent studies have explored psychological capital's impact on corporate innovation (Grözinger et al., 2022) and crowdfunding performance (Anglin et al., 2018a), there has been limited focus on its role in sustainability practices. In response to these gaps and recent calls for a more in-depth examination of psychological capital's influence within organizational contexts (e.g., Anglin et al., 2018a; Memili et al., 2020), this study contributes new evidence to the existing literature and expands our understanding of its strategic importance.

The remainder of this paper is organized as follows: Section 2 presents the theoretical framework underpinning our study. Section 3 offers a comprehensive review of the relevant literature and outlines the development of our research hypotheses. Section 4 details the research methodology, including data sources, variables, and analytical techniques. Section 5 discusses the empirical findings derived from our analysis. In Section 6, we conduct additional tests to ensure the robustness of our results. Finally, Section 7 provides a summary of our study's key findings, their implications, and potential directions for future research.

3.2 Theoretical Background

As we investigate the associations among OPC, ESG, and the moderating role of CEO power, we deem it appropriate to draw insights from RBV and upper echelons theoretical perspectives to construct a dynamic and all-encompassing interdisciplinary theoretical framework to guide our analysis. The RBV is particularly relevant because it fundamentally addresses how firms can achieve and sustain a competitive advantage by leveraging their unique, valuable, and rare resources (Barney, 1991). By focusing on a firm's internal capabilities, the RBV highlights these resources as the primary drivers of success (Orazalin et al., 2024). This theoretical framework has been extensively adopted in prior research, showing that traditional resources such as financial assets, physical assets, and organizational processes play a significant role in positively influencing various corporate outcomes (e.g., Gabler et al., 2023; Orazalin et al., 2024; Porcu et al., 2020). However, in today's rapidly evolving business environment, where the competitive landscape is increasingly shaped by non-traditional factors, the RBV provides a robust framework for understanding the strategic importance of intangible resources like OPC (McKenny et al., 2013; Orazalin et al., 2024). It allows us to explore how these resources, which are less tangible but no less critical, contribute to a firm's ability to innovate, adapt, and maintain sustainable practices (Grözinger et al., 2022).

OPC can significantly influence ESG outcomes through several key mechanisms. By boosting employee engagement and motivation, OPC cultivates a proactive and innovative culture that propels effective ESG initiatives (Alshebami, 2021; Newman et al., 2014). It aligns both individual and collective efforts with ESG objectives, embedding these practices into daily operations and decision-making processes, thereby enhancing sustainability outcomes (Anglin et al., 2018a). Furthermore, OPC can strengthen organizational adaptability and problem-solving capabilities, equipping firms to navigate regulatory changes, meet stakeholder expectations, and address market demands related to ESG performance (McKenny et al., 2013; Yu & Hu, 2023). By fostering a positive and resilient organizational climate, OPC enables firms to tackle the complexities of ESG compliance and performance with greater agility (Hmieleski et al., 2015; Orazalin et al., 2024).

However, the effectiveness of corporate resources in achieving organizational outcomes is significantly shaped by the attributes of corporate leaders and how they strategically deploy these resources (Mahran & Elamer, 2024a; Orazalin et al., 2024). Upper echelons theory offers a valuable framework for understanding this relationship, linking the characteristics of senior executives to organizational performance (Hambrick, 2007; Hambrick & Mason, 1984). According to this theory, the diverse backgrounds, personalities, and decision-making styles of senior executives are pivotal in determining how resources are allocated and utilized, directly impacting the success of corporate initiatives (Rixom et al., 2023). Empirical studies applying this theory illustrate the influence of CEO characteristics on firm strategies and outcomes. For example, Yuan et al. (2019) found that companies led by female CEOs or those with humanities backgrounds tend to perform better environmentally, while CEOs with economics degrees often correlate with lower environmental performance. Al-Najjar and Abualqumboz (2024) further noted that CEOs with financial expertise prioritize ESG initiatives as strategic tools to enhance company's reputation. Conversely, Chen et al. (2013) identified that CEO compensation can reduce the focus on ESG risks. Additionally, Al-Shammari et al. (2019) linked CEO narcissism to more decisive sustainability actions, while Gupta and Briscoe (2020) showed that CEOs' political connections and ideological beliefs shape their strategic approach to sustainability. Moreover, CEO duality was found to diminish the positive impact of board gender diversity on ESG performance (Romano et al., 2020).

In this framework, CEO power plays a crucial role in shaping the company's approach to fostering ESG practices and achieving superior performance (Chen et al., 2023; Sariol & Abebe, 2017). Prior studies indicate that CEO power significantly influences various aspects of firm performance, such as capital structure (Luo, 2015), corporate risk-taking (Pathan, 2009), and innovation (Sariol & Abebe, 2017). However, excessive CEO power can have detrimental effects (Al-Shaer et al., 2023). It may lead to passive acceptance of the CEO's decisions, potentially undermining effective ESG implementation (Adams et al., 2005). High levels of CEO power can also create moral hazard issues, particularly when the CEO's preferences conflict with shareholder interests, resulting in suboptimal decision-making (Veprauskaitė & Adams, 2013). Additionally, powerful CEOs might engage in self-serving behaviors and struggle to accurately gauge stakeholder interests (Jiraporn et al., 2012). For example, Al-Shaer et al. (2023) found that excessive CEO power negatively impacts social and environmental practices, while Allam et al. (2024) identified a similar negative relationship between CEO power and modern slavery disclosures. This concentration of power can distort organizational priorities and decision-making processes, potentially sidelining ESG objectives if the CEO's vision does not align with broader sustainability goals (Li et al., 2016). Consequently, the extent of CEO power and influence can significantly affect how OPC is directed.

3.3 Literature Review and Hypotheses Development

3.3.1 Organizational psychological capital

Psychological capital spans various fields, including organizational behavior, human resource management, and entrepreneurship (Anglin et al., 2018a). On an individual level, it refers to the cognitive, emotional, and behavioral resources that individuals draw upon when facing challenges (Luthans et al., 2007). Recent studies suggest that psychological capital extends beyond individuals, existing within groups and organizations as well (Grözinger et al., 2022; McKenny et al., 2013). At the organizational level, McKenny et al. (2013) introduced the concept of OPC, which represents an organization's reservoir of positive psychological resources. Unlike human and social capital, which focus on “what you know” and “who you know,” psychological capital emphasizes “who you are” (Anglin et al., 2018a).

Psychological capital at the organizational level includes four key components:

• **Optimism**: It reflects a shared belief that the organization can achieve its goals and overcome challenges, regardless of past obstacles or failures. This outlook is shaped by how past accomplishments are perceived and celebrated within the organization, reinforcing a culture of confidence and forward-looking ambition (Luthans & Youssef, 2004).

• **Confidence**: It represents the organization's trust in its competence, skills, and cognitive resources necessary to achieve high performance levels. This sense of assurance enables the organization to pursue ambitious goals, take calculated risks, and consistently deliver on its commitments, thereby reinforcing its competitive edge in the marketplace (Newman et al., 2014).

• **Resilience**: It refers to the organization's ability to effectively navigate setbacks or failures, learning from these experiences to emerge stronger and more capable. This attribute is crucial in maintaining stability and progress in the face of adversity, as it allows the organization to rebound from challenges, adapt to changes, and continue thriving (McKenny et al., 2013). Resilient organizations are characterized by their capacity to recover quickly from disruptions and to maintain focus on long-term objectives, even in turbulent environments (Grözinger et al., 2022).

• **Hope**: It represents the positive motivational state that drives the collective efforts of the organization toward achieving its goals. It is composed of several key elements: the setting of ambitious yet attainable work-related goals, the drive and determination to pursue these objectives, and the ability to envision and chart multiple pathways to reach them (Luthans & Youssef, 2004). This hopeful outlook fosters a sense of purpose and direction within the organization, encouraging continuous improvement and innovation as the organization works toward its future aspirations (McKenny et al., 2013; Newman et al., 2014).

The significance of psychological capital in influencing outcomes at both the individual and organizational levels is increasingly acknowledged. Research has demonstrated that employees' psychological capital is closely associated with various positive outcomes, such as increased employee innovation (Yu & Hu, 2023), improved workplace psychological safety, enhanced employee performance (Peng et al., 2022), and greater job satisfaction (Alshebami, 2021). On an organizational scale, the presence of OPC has been shown to boost creative innovation and overall performance, particularly in times of crisis (Grözinger et al., 2022), and to significantly enhance crowdfunding success (Anglin et al., 2018a).

3.3.2 OPC and ESG practices

In today's competitive business environment, effectively leveraging corporate resources is essential for maintaining a competitive edge (Moussa et al., 2020; Orazalin et al., 2024). In this context, the significant impact of intangible assets, such as OPC, becomes increasingly evident (Anglin et al., 2018a). OPC, which includes attributes like optimism, resilience, confidence, and hope, plays a crucial role in shaping corporate attitudes and behaviors (Bochkay et al., 2019; Davis et al., 2015; Sajko et al., 2021). Prior studies on the impact of OPC on ESG practices are relatively sparse. Most studies focus on OPC's influence on broader aspects of corporate performance. For example, McKenny et al. (2013) and Memili et al. (2014) have highlighted that OPC enhances overall firm performance. Friend et al. (2016) further show that OPC positively influences stakeholder perceptions, leading to more favorable evaluations. Additionally, Anglin et al. (2018a) found that the use of positive psychological capital language is linked to improved crowdfunding performance. Moreover, OPC has been found to boost firm innovation, particularly during external crises (Grözinger et al., 2022).

We argue that OPC can influence ESG outcomes through several key mechanisms. Firstly, optimism within OPC enhances employee engagement and motivation, leading to a proactive and innovative culture that drives effective ESG initiatives (Memili et al., 2014). This optimism helps employees remain committed to sustainability goals and fosters creativity in addressing ESG challenges (Alshebami, 2021; Newman et al., 2014). Secondly, confidence in organizational capabilities ensures that both individual and collective efforts are aligned with ESG objectives (Sajko et al., 2021). This alignment embeds ESG practices into everyday operations and decision-making processes, leading to more effective and sustained sustainability outcomes (Anglin et al., 2018a). Thirdly, resilience equips organizations to better navigate regulatory changes, meet stakeholder expectations, and adapt to market demands related to ESG performance (Grözinger et al., 2022). By improving adaptability and problem-solving capabilities, resilience helps organizations overcome obstacles and thrive despite challenges (McKenny et al., 2013; Yu & Hu, 2023). Lastly, hope, which involves setting ambitious work-related goals, driving the effort to achieve these objectives, and envisioning various pathways for success, creates a positive and resilient organizational climate (Bochkay et al., 2019). This environment enables firms to manage ESG compliance and performance complexities with greater agility, fostering long-term sustainability (Hmieleski et al., 2015; Orazalin et al., 2024). Based on the preceding discussion, we posit the following hypothesis:

H*$_1$*: Higher levels of OPC are positively associated with the corporate ESG performance.

3.3.3 OPC and ESG practices: the moderating role of CEO power

Among upper echelons variables, CEO power stands out as a critical determinant of organizational outcomes, influencing both strategic direction and operational performance (DeBoskey et al., 2019; Mahran & Elamer, 2024a; Veprauskaitė & Adams, 2013). As the central figure in corporate governance, the CEO's authority and control over decision-making processes are pivotal in determining the success or failure of a company's initiatives (Adams et al., 2005). By exerting control over corporate resources, CEOs can effectively manage resistance from various stakeholders and steer organizational behavior to align with their strategic vision (Adams et al., 2005; Saiyed et al., 2023). However, with increased power, CEOs may become more susceptible to decision-making biases that prioritize their personal interests or perspectives over those of the broader organization (Allam et al., 2024). This concentration of authority can narrow the strategic vision, causing alternative viewpoints to be overlooked and critical feedback to be stifled. As a result, decision-making processes may become suboptimal, leading to strategies that do not align with the long-term goals of the company (Al-Shaer et al., 2023).

The impact of CEO power on ESG outcomes is marked by conflicting findings, highlighting a complex and nuanced relationship. Some studies underscore the potential benefits of CEO power in advancing ESG initiatives. For instance, Abdullah et al. (2024) demonstrated a positive relationship between CEO power and ESG performance, while Jouber (2019) also found a positive link between CEO power and corporate social responsibility practices. Similarly, Velte (2020) argued that CEO power can enhance the connection between ESG performance and financial success. On the other hand, other research points to the potential drawbacks of excessive CEO power in the context of ESG outcomes. Jiraporn and Chintrakarn (2013) reported an inverted U-shaped relationship between CEO power and ESG considerations. Additionally, Sheikh (2019) found that structural and ownership power negatively impact ESG performance. Supporting this view, Li et al. (2016) and Muttakin et al. (2018) also identified a negative association between CEO power and corporate social responsibility practices. Further, Al-Shaer et al. (2023) noted that excessive CEO power adversely affects social and environmental practices. Similarly, Veprauskaitė and Adams

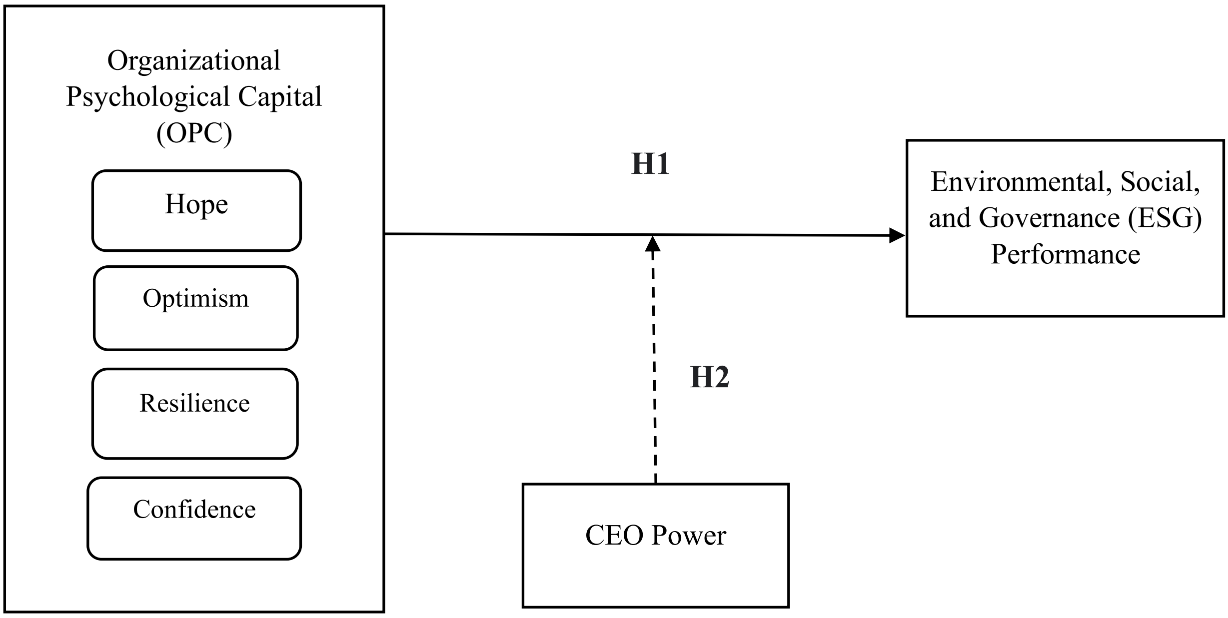
(2013) provided evidence that CEO power, particularly in the form of CEO-Chair duality, is negatively related to financial performance, which may indirectly weaken the firm's commitment to ESG initiatives.

Based on prior discussion and given the impact of CEO power on the decision-making process, resource allocation, and ESG initiatives, we posit the following hypothesis:

H*$_2$*: CEO power moderates the relationship between OPC and corporate ESG performance.

Figure 3.1 shows our theoretical model, including the primary variables and associated hypotheses.

Figure 3.1 Research model and hypotheses.



3.4 Sample and Methodology

3.4.1 Sample selection

The study focuses on UK companies listed on the FTSE 350 Index from 2012 to 2021. The FTSE 350 was chosen because it represents firms with the highest market capitalization, making them highly relevant to investors, professional bodies, and regulators (Tingbani et al., 2020). We selected 2012 as the starting point due to the significant rise in voluntary ESG disclosures among these firms during this period, which reflects a broader shift towards sustainability practices (Al-Shaer et al., 2023). The end date of 2021 was chosen to capture the effects of the COVID-19 pandemic and to analyze how OPC influences companies during crises. To specifically address the impact of COVID-19, we conducted additional analyses by dividing the data into pre- and post-pandemic periods. From the original list of companies, we excluded 133 financial companies from the analysis due to their distinct regulatory requirements and accounting practices, which differ significantly from those of non-financial companies (Al-Najjar & Abualqumboz, 2023). Additionally, 17 companies were excluded due to missing data and the unavailability of annual reports in a transferable PDF format suitable for textual analysis. As a result, the final sample comprised 200 firms, with a total of 1,659 observations. To conduct our textual analysis and measure OPC, we first collected the available annual reports of these companies in PDF format from Bloomberg and their respective websites. Additionally, data on ESG, financial, and governance metrics were compiled from Refinitiv Eikon. Table 3.1 presents the industrial breakdown of our sample, categorized according to the DataStream Industry Classification Benchmark (ICB) level 1 industries, which encompasses 10 distinct groups.

Table 3.1 Sample industrial composition

Industry	Companies	Observations	Percentage
Basic Materials	16	139	8.38
Consumer Discretionary	46	366	21.96
Consumer Staples	19	175	10.56
Energy	8	62	3.74
Health Care	10	84	5.08
Industrials	50	438	26.43
Real Estate	27	230	13.88
Technology	11	61	3.68
Telecommunications	6	44	2.65
Utilities	7	62	3.74
Total	**200**	**1659**	**100**

3.4.2 Variables measurements

3.4.2.1 Dependent variable: ESG performance (ESG_PERF)

To achieve our primary research objective, which is identifying the underlying drivers of ESG performance within the UK context, we measure ESG performance based on scores obtained from the Refinitiv database (Eliwa et al., 2023; Orazalin et al., 2024). The ESG scores are derived from a composite rating, reflecting firms' dedication to three distinct dimensions: environmental, social, and governance. The ESG score evaluates a company's environmental performance in relation to various criteria, such as sustainable production practices, responses to climate change, and eco-friendly marketing initiatives, among others. Social factors within the ESG score are assessed by considering business ethics, labor conditions for employees, job security, and related aspects. Governance factors pertain to elements like the structure of the company's board, the quality of audits, and the transparency of information disclosure, among other relevant indicators (Aboud et al., 2024; Ullah et al., 2022).

3.4.2.2 Independent variable: organizational psychological capital (O_PsyCapS)

To measure OPC, we adopted a textual analysis methodology based on the approach developed by Loughran and McDonald (2016). Specifically, we utilized a word list developed by McKenny et al. (2013), which identifies distinct terms associated with the four components of OPC: optimism (86 words), hope (89 words), resilience (189 words), and confidence (130 words). These word lists were chosen for their established relevance and specificity in accurately capturing the dimensions of OPC (Grözinger et al., 2022). To implement this methodology, we used Python software, which offers significant advantages over traditional methods (Bochkay et al., 2023; Ignatov, 2023). Python's automation and scalability allow for the efficient processing and analysis of large volumes of textual data, minimizing human error (Bhandari et al., 2022). Additionally, Python's open-source nature and active community support provide access to the latest techniques, further enhancing our data analysis capabilities (Bochkay et al., 2023).

Prior to analysis, the corporate narrative text underwent preprocessing, including the removal of stop words, punctuation, and irrelevant symbols to ensure clean data input (Mansouri & Momtaz, 2022). We also excluded financial statement notes and the external auditor's report, focusing instead on narrative sections that reflect the company's direct communication with stakeholders, as these technical sections do not represent the company's narrative disclosure (Bassyouny et al., 2020). After preprocessing, we calculated the frequency of occurrences for each word list within the corporate narrative and normalized these counts by dividing them by the total number of words. The final OPC score was derived by summing the normalized scores for optimism, hope, resilience, and confidence. Appendix A shows examples of the language associated with the components of OPC, drawn from specific annual reports.

To ensure the reliability of our proxies for measuring OPC, we conducted a thorough validation process. We selected a sample of 10 companies, and their annual reports were independently analyzed and manually coded by two trained researchers based on predefined criteria to identify instances of hope, optimism, resilience, and confidence. This manual coding process demonstrated significant agreement between the researchers, thereby validating the accuracy of our automated keyword-based approach (Bao & Datta, 2014). Additionally, we assessed the internal consistency of our composite scores using Cronbach's alpha, which yielded a value of .81. This high Cronbach's alpha indicates strong internal consistency and supports the reliability of our measures.

3.4.2.3 Moderating variable: CEO power (CEO_Power)

CEO power is a multifaceted concept that can significantly influence organizational dynamics in various ways. Previous studies have utilized several dimensions to measure CEO power, each offering unique insights into the CEO's influence. For example, CEO duality, where the CEO also holds the position of chair of the board, has been extensively studied as a proxy for CEO power (DeBoskey et al., 2019; Veprauskaitė & Adams, 2013; Walters et al., 2010). Another important dimension is CEO ownership, which reflects the extent of a CEO's equity stake in the company and indicates their vested interest and influence over corporate decisions (Muttakin et al., 2018; Veprauskaitė & Adams, 2013). CEO tenure, or the length of time an individual has served as CEO, often signals the accumulation of power and the ability to shape board and strategic decisions (Park et al., 2018; Sheikh, 2019). Additionally, CEO remuneration, including salary and bonuses, provides insight into the reward for performance and the leverage a CEO wields within the organization (Jiraporn & Chintrakarn, 2013; Luo, 2015). No single measure can comprehensively capture all aspects of CEO power (Muttakin et al., 2018). We measured CEO power using CEO duality to capture this critical dimension.

3.4.2.4 Control variables

To address potential endogeneity concerns related to omitted variables and in line with prior research (Al-Najjar & Abualqumboz, 2024; Bassyouny et al., 2020; Eliwa et al., 2023), we incorporate a comprehensive set of firm-specific control variables. Firm size (SIZE) is used as a proxy for organizational visibility, with larger firms more likely to engage in ESG practices (Eliwa et al., 2023). We also consider firm age (AGE), as older companies may face challenges in adapting to evolving ESG standards, potentially hindering their ESG engagement (Bassyouny et al., 2020). Additionally, we include profitability (ROA) and liquidity (LIQ) since more profitable and liquid firms tend to have greater resources to support ESG initiatives (Tingbani et al., 2020). To account for corporate governance influences, we include board size (B_SIZE), which promotes diversity and effective ESG implementation, board independence (B_INDEP), which enhances transparency and accountability (Eliwa et al., 2023), and audit committee independence (AC_INDEP), which improves oversight of ESG practices (Al-Najjar & Abualqumboz, 2024). We also control for CEO characteristics, such as gender (CEO_GEND), with female CEOs often prioritizing ESG practices (Liao et al., 2021), and financial experience (CEO_FINEXP), as financially experienced CEOs are likely to better understand and prioritize ESG initiatives, thus prioritizing ESG practices and effectively communicating ESG-related information as a strategic tool to enhance the company's reputation (Al-Najjar & Abualqumboz, 2024). CEO compensation (CEO_COMP) is considered due to its potential impact on the prioritization of ESG issues, which may conflict with short-term financial targets (Cohen et al., 2023). Lastly, we introduce industry and year-fixed effects to account for any confounding factors that might influence ESG performance.

3.4.3 Research models

The following model (1) is used to test Hypothesis 1 related to examining the association between OPC and corporate ESG performance.

$$\begin{aligned} ESG\_PERF_{i,t} = {} & \beta_0 + \beta_1 O\_PsyCapS_{i,t} + \beta_2 CEO\_Power_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 LEV_{i,t} + \\ & \beta_6 ROA_{i,t} + \beta_7 LIQ_{i,t} + \beta_8 B\_GEN\_DIV_{i,t} + \beta_9 B\_SIZE_{i,t} + \beta_{10} B\_INDEP_{i,t} + \\ & \beta_{11} AC\_INDEP_{i,t} + \beta_{12} CEO\_GEND_{i,t} + \beta_{13} CEO\_FINEXP_{i,t} + \\ & \beta_{14} CEO\_COMP_{i,t} + \beta_{15} Year_{i,t} + \beta_{16} Ind_{i,t} + \varepsilon_{i,t} \qquad (1) \end{aligned}$$

The following model (2) is used to test Hypothesis 2 related to examining the moderating effect of CEO power on the main relationship. The moderating effect is examined by adding O_PsyCapS*CEO_Power representing the interaction between OPC and CEO power.

$$\begin{aligned} ESG\_PERF_{i,t} = {} & \beta_0 + \beta_1 O\_PsyCapS_{i,t} + \beta_2 CEO\_Power_{i,t} + \beta_3 O\_PsyCapS{*}CEO\_Power_{i,t} + \\ & \beta_4 SIZE_{i,t} + \beta_5 AGE_{i,t} + \beta_6 LEV_{i,t} + \beta_7 ROA_{i,t} + \beta_8 LIQ_{i,t} + \beta_9 B\_GEN\_DIV_{i,t} + \\ & \beta_{10} B\_SIZE_{i,t} + \beta_{11} B\_INDEP_{i,t} + \beta_{12} AC\_INDEP_{i,t} + \beta_{13} CEO\_GEND_{i,t} + \\ & \beta_{14} CEO\_FINEXP_{i,t} + \beta_{15} CEO\_COMP_{i,t} + \beta_{16} Year_{i,t} + \beta_{17} Ind_{i,t} + \varepsilon_{i,t} \qquad (2) \end{aligned}$$

Table 3.2 outlines variables description and their data sources.

Table 3.2 Variables description

Variable	Symbol	Details
ESG performance	ESG_PERF	Derived from the Refinitiv ESG database, the Refinitiv ESG scores are determined by aggregating the total scores assigned to firms based on their dedication to three distinct ESG dimensions: environmental, social, and governance.
Organizational psychological capital	O_PsyCapS	Derived by summing the scores for optimism, hope, resilience, and confidence based on the wordlist devised by McKenny (2013).
CEO power	CEO_Power	Measured by CEO duality as a dummy variable equal to 1 if CEO also serves as chairman, and 0 otherwise. Data obtained from the Refinitiv database.
Firm size	SIZE	Measured as the natural logarithm of a company's total assets. Data obtained from the Refinitiv database.
Firm age	AGE	Measured as the number of years since the firm's incorporation. Data obtained from the Refinitiv database.
Firm leverage	LEV	Determined by the ratio of total debt to total assets. Data obtained from the Refinitiv database.
Firm profitability	ROA	Calculated as net income divided by total assets. Data obtained from the Refinitiv database.
Firm liquidity	LIQ	Calculated by dividing a firm's current assets by its current liabilities. Data obtained from the Refinitiv database.
Board gender diversity	B_GEN_DIV	Calculated as the percentage of female directors to the total number of directors within the board. Data obtained from the Refinitiv database.
Board size	B_SIZE	Measured as the total number of members comprising the board of directors. Data obtained from the Refinitiv database.
Board independence	B_INDEP	Measured as the proportion of independent non-executive directors to the total number of directors within the board. Data obtained from the Refinitiv database.
Audit committee independence	AC_INDEP	Measured as the percentage of independent members within the audit committee. Data obtained from the Refinitiv database.
CEO gender	CEO_GEND	Measured as a dummy variable equal to 1 for female CEOs, and 0 otherwise. Data obtained from the Refinitiv database.
CEO financial experience	CEO_FINEXP	Measured as a dummy variable equal to 1 if the CEO has prior work experience in banks, financial institutions, and the investment sector, and 0 otherwise. Data obtained from the Refinitiv database.
CEO compensation	CEO_COMP	Measured as the natural logarithm of total salaries and bonuses received by the CEO. Data obtained from the Refinitiv database.

3.5 Empirical Results and Discussions

3.5.1 Descriptive statistics

Table 3.3 presents the descriptive statistics. The narrative disclosures provided by the firms varied significantly in length. The minimum word count observed was 19,873, while the maximum reached an impressive 504,613 words. On average, the firms' narrative disclosures consisted of approximately 104,111.3 words. Furthermore, the ESG performance of the firms (*ESG_PERF*) displayed significant variation across the sample. The maximum ESG score is an impressive 95.25, indicating exceptional dedication to environmental, social, and governance practices. On the other end of the spectrum, the minimum ESG score recorded is 4.77. The average ESG score across all firms stands at 51.54, serving as a central point to assess the overall sustainability performance of the sample. Nevertheless, these scores are mainly in line with those of previous studies (Eliwa et al., 2021). Additionally, the OPC (*O_PsyCapS*) exhibits notable differences. Corporate highest recorded OPC is 1.864%, indicating a strong presence of positive psychological attributes and attitudes. While the lowest OPC score observed is 0.0177%, and on average, firms in the sample demonstrate a low OPC score of 1.01%. Concerning our control variables, the data reveals that the average audit committee independence (*AC_INDEP*) stands at 93.98%, board gender diversity (*B_GEN_DIV*) is at 57.14%, and, on average, 12.23% of CEOs in our sample are female (*CEO_GEND*). Additionally, the average board size (*B_SIZE*) is composed of 9 members. These preliminary findings align with the results reported in earlier literature (Al-Shammari et al., 2019; Bassyouny et al., 2020).

Table 3.3 Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
T_WORDS	1,659	103659.8	41900.97	32367	265157
T_SENTENCES	1,659	2728.486	1178.746	47	13135
ESG_PERF	1,659	51.54503	10.4255	4.771044	95.25757
O_PsyCapS	1,659	1.011565	0.199372	0.017788	1.864387
B_GEN_DIV	1,659	22.83831	12.83354	0	57.14286
AGE	1,659	29.99578	26.57687	1	113
lnSIZE	1,659	7.820649	1.581988	3.6518	12.71709
LEV	1,659	54.93849	21.45747	0	168.8661
ROA	1,659	11.01228	9.998212	-11.9797	38.28549
LIQ	1,659	1.270425	1.229836	0.20056	10.91477
CEO_Power	1,659	0.156118	0.363077	0	1
CEO_GEND	1,659	0.122363	0.327803	0	1
lnCEO_COMP	1,659	7.392138	1.099411	2.833213	11.16208
CEO_FINEXP	1,659	0.224232	0.417201	0	1
B_SIZE	1,659	9.316456	2.39557	3	17
B_INDEP	1,659	59.84294	14.2297	0	93.45
AC_INDEP	1,659	93.9828	13.24912	0	100

Table 3.4 displays the Pearson correlation coefficients representing the interrelationships between the variables investigated in the present study. This correlation analysis offers an initial insight into the associations between the variables and the focal variable. Additionally, it helps to identify the presence of potential multicollinearity among the variables under examination. *O_PsyCapS* is found to be significantly and positively associated

with *ESG_PERF*, aligning with the prediction that corporate with high levels of OPC can foster positive ESG outcomes. In addition, our analysis revealed a significant negative association between *CEO_Power* and corporate ESG performance. The correlations between *ESG_PERF* and the other control variables are in line with the findings of previous research (Bochkay et al., 2019; chen et al., 2023; Eliwa et al., 2023).

Table 3.4 Correlation matr

	Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1)	*ESG_PERF*	1.00														
(2)	*O_PsyCapS*	0.41*	1.00													
(3)	*B_GEN_DIV*	0.18*	0.30*	1.00												
(4)	*AGE*	-0.04	0.02	0.07*	1.00											
(5)	*SIZE*	0.14*	0.03	0.22*	0.17*	1.00										
(6)	*LEV*	-0.09*	0.05	0.19*	-0.04	0.26*	1.00									
(7)	*ROA*	-0.07*	0.09*	0.03	0.02	-0.25*	-0.17*	1.00								
(8)	*LIQ*	0.25*	0.03	-0.08*	-0.11*	-0.19*	-0.35*	0.03	1.00							
(9)	*CEO_Power*	-0.25*	-0.29*	-0.33*	-0.09*	-0.24*	-0.12*	0.07*	0.03	1.00						
(10)	*CEO_GEND*	0.15*	0.14*	0.25*	0.03	0.15*	0.12*	-0.06*	-0.04	-0.14*	1.00					
(11)	*CEO_COMP*	-0.18*	0.05*	0.16*	0.17*	0.44*	0.20*	0.09*	-0.27*	-0.17*	0.00	1.00				
(12)	*CEO_FINEXP*	0.01	0.09*	0.02	0.05*	0.00	-0.01	0.16*	-0.04	-0.04	0.13*	0.01	1.00			
(13)	*B_SIZE*	0.09*	0.09*	0.25*	0.13*	0.60*	0.22*	-0.06*	-0.12*	-0.21*	0.14*	0.41*	0.02	1.00		
(14)	*B_INDEP*	0.16*	0.07*	0.29*	0.14*	0.36*	0.02	-0.09*	0.01	-0.18*	0.02	0.14*	-0.06*	0.15*	1.00	
(15)	*AC_INDEP*	0.06*	-0.02	0.10*	0.08*	0.16*	-0.06*	0.01	0.00	-0.06*	-0.03	0.14*	0.02	0.14*	0.40*	1.00

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

3.5.2 Multivariate results and discussion

3.5.2.1 The effect of OPC on ESG performance

Table 3.5 presents the impact of OPC on ESG outcomes, as well as the moderating effect of CEO power on this relationship. The results from Model 1 indicate that OPC has a positive and significant influence at the 1% level, suggesting that higher levels of OPC are associated with improved ESG performance, which strongly supports our first hypothesis. This finding aligns with prior research that emphasizes the importance of corporate intangible resources like OPC in enhancing organizational outcomes (e.g., Anglin et al., 2018a; Grözinger et al., 2022; McKenny et al., 2013; Newman et al., 2014). Firms with high OPC exhibit greater resilience, optimism, confidence, and hope, which positively affect their decision-making, problem-solving, and overall strategic initiatives (Newman et al., 2014). This enhanced OPC enables firms to better navigate challenges and uncertainties, thereby fostering a stronger commitment to ESG practices and sustainable business strategies (Peng et al., 2022). This evidence also supports the RBV theory, suggesting that firms achieve and sustain competitive advantages by effectively managing and leveraging their unique resources and capabilities. In this context, by leveraging their OPC, companies can effectively enhance their sustainability efforts, utilizing their resilience, optimism, confidence, and hope to drive better decision-making and problem-solving in the realm of ESG practices.

Among the control variables, firm age shows a negative relationship with ESG performance, suggesting that older firms may be slower to adopt ESG practices compared to their younger counterparts. This is consistent with the notion that established companies often face greater inertia due to entrenched processes and cultures, which can impede their ability to embrace new sustainability trends and innovations (Bassyouny et al., 2020). In contrast, corporate liquidity is positively related to ESG performance. Firms with higher liquidity are better equipped to invest in and support ESG initiatives, as they have more financial resources to allocate towards sustainable practices and comprehensive ESG strategies. This enables them to respond more effectively to stakeholder demands for responsible business practices. On the other hand, CEO compensation shows a negative relationship with ESG performance, indicating that higher levels of executive pay are associated with poorer ESG outcomes. This suggests that substantial CEO compensation might prioritize short-term financial gains over long-term sustainability goals, aligning with concerns that high executive pay can incentivize behavior focused on immediate financial performance rather than integrating robust ESG strategies (Cohen et al., 2023).

Table 3.5 The relationship between OPC, ESG performance and CEO power

	(1) Model 1	(2) Model 2
O_PsyCapS	**14.188***** **(11.75)**	**20.60***** **(15.39)**
CEO_Power	-3.867*** (-6.68)	**-1.393***** **(-5.79)**
O_PsyCapS* CEO_Power		**-0.718***** **(-3.06)**
AGE	-0.017** (-2.24)	-0.021*** (-2.63)
SIZE	0.308* (1.70)	1.452*** (7.53)
LEV	-0.030*** (-2.95)	-0.043*** (-3.89)
ROA	-0.008 (-0.39)	-0.019 (-0.84)
LIQ	0.926*** (5.49)	1.530*** (8.16)
CEO_GEND	0.816 (1.36)	2.000*** (2.95)
CEO_COMP	-1.744*** (-8.39)	-2.436*** (-10.64)
CEO_FINEXP	-0.530 (-1.17)	-0.453 (-0.88)
B_GEN_DIV	0.035* (1.84)	0.0106 (0.50)
B_SIZE	0.148 (1.45)	0.102 (0.89)
B_INDEP	0.063*** (3.98)	0.032* (1.77)
AC_INDEP	-0.006 (-0.36)	0.020 (1.16)
Constant	47.825*** (18.28)	34.666*** (13.21)
Year & industry fixed effect	Included	Included
Observations	1659	1659
VIF	1.93	1.77
adj. R^2	0.50	0.34

Notes: The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 3.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

3.5.2.2 The moderating effect of CEO power

In this section, we explore how CEO power influences the relationship between OPC and ESG commitment. Model 2 in Table 3.5 reveals that the interaction term (O_PsyCapS*CEO_Power) has a statistically significant negative coefficient at the 1% level. This suggests that CEO power diminishes the positive effect of OPC on ESG practices. Consequently, this finding supports Hypothesis 2, indicating that CEO power moderates the relationship between OPC and ESG. This evidence aligns with prior research (e.g., Allam et al., 2024; Saiyed et al., 2023; Veprauskaitė & Adams, 2013), which suggests that powerful CEOs may exhibit more self-serving behaviors. Such behaviors can lead to a misalignment between preferred projects and stakeholder interests, resulting in suboptimal decision-making. By prioritizing short-term financial goals over long-term sustainability, powerful CEOs may weaken the impact of OPC on ESG outcomes. This finding is consistent with upper echelons theory (Hambrick & Mason, 1984), which posits that the characteristics of top executives influence organizational decisions and resource allocation, ultimately affecting corporate performance.

3.6. Robustness and Additional Tests

3.6.1 Robustness tests

To ensure the robustness of our findings, we conduct several sensitivity analyses. Firstly, we utilize the two-stage least squares (2SLS) method to address potential endogeneity concerns. For this purpose, we adopt the first lag as an instrumental value based on the assumption that past corporate OPC scores do not causally impact a firm's adoption of ESG practices, drawing from prior research (Martínez-García et al., 2022; Orazalin et al., 2024). The results of the first-stage estimation as displayed in Column 1 of Table 3.6, show that the instrumental variables *L.O_PsyCapS* has a statistically significant positive coefficient ($t = 6.80$, $p < 0.01$). In Column 2 of Table 3.6, the second-stage estimates are presented. Notably, the analysis uncovers a remarkable positive coefficient for *O_PsyCapS* ($t = 8.78$, $p < 0.01$). These findings reinforce and harmonize with the conclusions drawn from our primary analysis, indicating a robust and meaningful positive relation between OPC and the ESG performance of the firm.

Secondly, we employ a dynamic two-step system generalized method of moments (GMM) to further validate the absence of endogeneity in our analysis. In this approach, we utilize the first and second lags of our explanatory variables as instruments, while year and industry dummies are considered exogenous variables, consistent with the methodology applied in the study conducted by Orazalin et al. (2024). The GMM estimation results as reported in Column 3 of Table 3.6, reveal that *O_PsyCapS* has a significant positive coefficient ($t = 5.20$, $p < 0.01$). These findings underscore the presence of a strong and meaningful positive association between OPC and the firm's ESG performance, further corroborating our previous analyses.

Finally, in order to mitigate concerns regarding firm-specific time-invariant unobservable effects that could impact our findings, we chose to employ a firm fixed-effect model, aiming to address potential issues of omitted variable bias. Despite this adjustment, the results, as presented in Table 3.7, reveal that *O_PsyCapS* maintains a significant positive coefficient ($t = 18.45$, $p < 0.01$), closely resembling our primary outcomes.

Table 3.6 Robustness tests: Two stage least squares and GMM

	Instrumental variable 2SLS		**GMM**
	First stage	Second stage	
	(1)	(2)	(3)
	O_PsyCapS	ESG_PERF	ESG_PERF
L.O_PsyCapS	0.680***		
	(38.55)		
L.ESG_PERF			0.145***
			(3.17)
O_PsyCapS		**16.786*** **	**20.403*** **
		(8.78)	**(5.20)**
CEO_Power	-0.040***	-3.768***	-1.962**
	(-4.31)	(-5.60)	(-2.25)
Control variables	included	included	included
Constant	0.444***	43.841***	12.069
	(11.62)	(13.42)	(0.31)
Year & industry fixed effect	Included	Included	Included
Observations	1429	1429	1429
Cragg–Donald Wald F statistic	1313.444		
Stock and Yogo (2005) ID test for critical values: 10% maximal IV	16.38		
Anderson canon. Corr. Chi-sq.	692.474***		
Sargan (P-value)	0.000		0.000
Arellano-Bond (AR-1)			0.000
Arellano-Bond (AR-2)			0.852
adj. R^2	0.73	0.52	

Notes: This table reports the results of robustness tests using two-stage least squares (2SLS) and generalized method of moments (GMM) estimates of our main findings for the effect of OPC on ESG performance. The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 3.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table 3.7 The relationship between OPC, ESG performance using fixed-effects

	(1) ESG_PERF
O_PsyCapS	**20.039***** **(18.45)**
CEO_Power	-2.690*** (-6.93)
Control variables	Included
Constant	-1.435 (-0.03)
Year & industry fixed effect	Included
Observations	1659
adj. R^2	0.85

Notes: The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 3.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

3.6.2 Additional analyses

In this section, we examine the association between OPC and various dimensions of ESG. Additionally, we evaluate the impact of OPC on overall financial performance, considering whether the competitive advantages conferred by strong OPC extend beyond ESG practices to improve profitability. Further, we explore the role of OPC during crises, such as the COVID-19 pandemic, to understand how the psychological resilience and adaptive capabilities embedded in OPC can help firms in the face of significant challenges.

3.6.2.1 OPC and firm performance

Model 1 in Table 3.8 presents the impact of OPC on firm financial performance. In this model, we use ROA as a measure of firm profitability, serving as an indicator of financial performance. The findings reveal that OPC has a positive and statistically significant influence on ROA at the 1% level. This suggests that higher levels of OPC within an organization are associated with improved profitability. This evidence aligns with prior research (e.g., Hmieleski et al., 2015; Memili et al., 2020), which indicates that intangible assets like OPC can enhance financial performance by fostering a more engaged, motivated, and productive workforce. Organizations with strong OPC are better positioned to leverage their human resources effectively, leading to greater operational efficiency, and higher profitability. These results demonstrate that the competitive advantage provided by OPC extends beyond ESG to positively influence other critical aspects of the company, including financial performance.

3.6.2.2 OPC components and ESG performance

In this section, we examine the relationship between various components of OPC and ESG performance to understand how these intangible assets influence sustainability practices. In Table 3.8, Model 2, our findings reveal that optimism, hope, and confidence have positive and statistically significant influences on ESG at the 1% level. This suggests that these psychological factors play a crucial role in enhancing a company's commitment to ESG practices. Specifically, optimism may lead to a more forward-looking and proactive approach to sustainability, while hope can drive persistence in ESG initiatives despite challenges (McKenny et al., 2013; Memili et al., 2014). Confidence might empower employees and leadership to undertake ambitious ESG projects, knowing they have the capability to achieve these goals (Grözinger et al., 2022). Interestingly, our analysis did not find a significant relationship between resilience and ESG performance. This finding suggests that while resilience is crucial for overall organizational stability, it might not be as pivotal as optimism, hope, and confidence in driving the forward-thinking, strategic decisions necessary for strong ESG performance. One possible explanation for this is that while resilience is vital for overcoming adversity and sustaining operations, it might be more helpful for organizations to withstand shocks rather than actively enhancing their ESG strategies.

3.6.2.3 OPC and ESG pillars

We examine the relationship between OPC and the individual pillars of ESG performance to determine whether OPC has a uniform effect across all ESG areas or if its influence varies depending on the specific pillar. Table 3.8, models 3, 4, and 5, show that OPC has a significant positive association with both the environmental and social components of ESG at the 1% level and with the governance component at the 10% level. This suggests that companies with higher levels of psychological capital are better equipped to implement and sustain ESG initiatives, leading to more effective environmental stewardship, stronger social responsibility, and improved governance practices. Overall, these findings reinforce the idea that OPC positively influences all dimensions of ESG, though its impact may vary slightly depending on the specific pillar.

Table 3.8 Additional analyses: financial performance, OPC constitutes, and ESG pillars.

	(1) ROA	(2) ESG_PERF	(3) E_PERF	(4) S_PERF	(5) G_PERF
O_PsyCapS	**3.952*** **		**19.667*** **	**16.609*** **	**3.349* **
	(2.70)		**(8.17)**	**(9.74)**	**(1.91)**
Optimisim_Score		**19.832*** **			
		(2.88)			
Hope_Score		**20.349*** **			
		(7.79)			
Resilience_Score		**6.788**			
		(1.11)			
Confidence_Score		**7.696*** **			
		(2.72)			
CEO_Power	2.125***	-3.803***	-2.559**	-2.777***	-5.873***
	(3.03)	(-6.58)	(-2.22)	(-3.40)	(-6.98)
Control variables	Included	Included	Included	Included	Included
Constant	7.324**	48.935***	40.461***	22.628***	78.890***
	(2.30)	(17.98)	(7.76)	(6.13)	(20.75)
Year & industry fixed effect	Included	Included	Included	Included	Included
Observations	1659	1659	1659	1659	1659
adj. R^2	0.20	0.51	0.49	0.36	0.13

Notes: This table presents the outcomes of our additional analyses. In column 1, we examine the correlation between OPC (O_PsyCapS) and financial performance (ROA). Column 2 investigates the association between the constitutes of OPC (Optimism_Score, Hope_Score, Resilience_Score, and Confidence_Score) and ESG performance (ESG_PERF). Subsequently, columns 3, 4, and 5 analyze the link between O_PsyCapS and the three dimensions of ESG performance (E_PERF, S_PERF, and G_PERF) respectively. Please see the "Additional Analyses" section for more information on the variables used in our additional analyses, while Table 3.2 fully defines all other variables used. The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

3.6.2.4 The effect of COVID-19 on the relationship between OPC and ESG performance

In this section, we explore the role of OPC during the COVID-19 pandemic by analyzing its impact across different periods. We divided our dataset into two sub-samples: pre-COVID (2012-2019) and post-COVID (2020-2021). This approach allows us to examine how OPC influences firm performance and ESG practices under normal conditions compared to the heightened challenges of the pandemic. Separate regressions for these periods reveal a significant positive relationship between OPC and ESG performance in both cases. Our findings, as shown in Table 3.9, indicate that OPC maintains a robust positive association with ESG performance across both the pre-COVID and post-COVID periods at the 1% level. Specifically, the coefficient for OPC increased from 13.217 before the pandemic to 16.841 during and after the pandemic. This increase suggests that OPC became even more crucial in enhancing ESG performance during the crisis. This rise in the coefficient aligns with the notion that OPC serves as a vital resource that supports organizations, particularly during challenging times like the COVID-19 pandemic (Grözinger et al., 2022; McKenny et al., 2013). It highlights how OPC can help firms navigate and sustain their ESG initiatives, demonstrating greater resilience and adaptability in the face of significant disruptions.

Table 3.9 The effect of COVID-19 on the relationship between OPC and ESG performance

	ESG_PERF Pre_COVID	ESG_PERF Post_Covid
O_PsyCapS	**13.217*****	**16.841*****
	(9.61)	**(6.61)**
CEO_Power	-3.935***	-7.659**
	(-6.59)	(-2.24)
Control variables	Included	Included
Constant	47.549***	43.937***
	(16.05)	(7.65)
Year & industry fixed effect	Included	Included
Observations	1278	381
adj. R^2	0.47	0.49

Notes: The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 3.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

3.7 Conclusion

The study empirically investigates how OPC influences ESG commitment in UK companies, while also examining the moderating role of CEO power in this relationship. The findings reveal that OPC significantly enhances a company's commitment to ESG practices, particularly during crises such as COVID-19, when the psychological resources associated with OPC are critical for maintaining and strengthening ESG efforts. In other words, OPC can create a competitive advantage by providing essential cognitive, emotional, and behavioral supports that help firms navigate and sustain their ESG initiatives during challenging times. However, CEO power acts as a negative moderator in this relationship. This negative moderation may occur because powerful CEOs can overshadow the positive effects of OPC by prioritizing short-term financial goals over long-term sustainability, thereby undermining the efficacy of OPC in driving ESG performance. Additionally, our results show that OPC is not only linked to improved ESG performance but also to better firm financial performance.

Our findings have both theoretical contributions and practical implications. From a theoretical perspective, our research integrates the RBV with upper echelons theory, offering a richer insight into how both psychological capital and leadership traits impact corporate behavior. The findings lend strong support to both the RBV and upper echelons theories. The results offer compelling evidence for RBV theory, as shown by the significant positive relationship between OPC and ESG commitment. This relationship underscores the importance of intangible resources like OPC in securing a competitive advantage and enhancing firm performance in ESG practices, particularly during crises. Additionally, our findings align with upper echelons theory, which posits that the characteristics and power of top executives significantly influence organizational outcomes. The moderating role of CEO power in our study illustrates how executive priorities and decision-making can affect the efficacy of OPC in driving ESG performance, highlighting the impact of leadership dynamics on the implementation and success of ESG initiatives.

Practically, in today's highly competitive business environment, companies are increasingly leveraging non-traditional resources to gain a competitive edge. This study highlights the pivotal role of OPC in enhancing a company's commitment to ESG practices, especially during crises like COVID-19. As a result, it is imperative for corporate boards and managers to prioritize investments in the psychological well-being of their workforce and leadership teams. By fostering a positive organizational culture and enhancing psychological resources, companies can not only strengthen their ESG initiatives but also improve overall financial performance. For policymakers, the study underscores the importance of recognizing the value of intangible assets like OPC in shaping corporate behavior and performance. By promoting policies that encourage the development and integration of OPC within organizations, policymakers can foster a business environment where sustainable practices are prioritized. This, in turn, will support broader societal goals of sustainability and corporate responsibility. Furthermore, the findings indicate that CEO power can weaken the impact of OPC on ESG commitment. For that reason, policymakers should consider implementing regulations that ensure transparency in executive decision-making and encourage a balance of power within corporate leadership. By doing so, they can help preserve the beneficial influence of OPC on corporate sustainability efforts, ensuring that these intangible resources are effectively leveraged to drive long-term, responsible corporate behavior.

Our study has some limitations that offer opportunities for future research. First, the data used in our analysis is limited to UK companies listed on the FTSE 350 Index between 2012 and 2021. Expanding the scope to include companies from different countries and industries could provide a more comprehensive understanding of the relationship between OPC and ESG practices. Second, while our study examined the moderating role of CEO power, there could be other factors influencing the relationship between OPC and ESG practices. Exploring additional moderators, such as board meetings, board size, or audit committee characteristics, could provide a deeper understanding of the complex dynamics at play. Third, our study focused on the OPC as the main psychological determinant of ESG practices, while other psychological characteristics were not explored in this research. Exploring the role of other corporate intangible assets, such as human and social capital, could provide further insights into how these traits influence ESG practices and sustainability initiatives within organizations.

Chapter 4

Essay 3

Navigating the corporate ego: Understanding the association between ESG performance and organizational narcissistic rhetoric

Abstract

This study investigates the relationship between Environmental, Social, and Governance (ESG) performance and the use of narcissistic rhetoric in corporate narrative disclosure. It also examines the moderating effect of board gender diversity on this relationship. Using a dataset of 1,659 firm-year observations from UK companies listed on the FTSE 350 Index between 2012 and 2021, the study employs Natural Language Processing (NLP) techniques to analyze corporate disclosures. The findings reveal a significant positive association between ESG performance and the use of narcissistic rhetoric, suggesting that companies with stronger ESG performance tend to employ more assertive and self-promotional language. Furthermore, the results show that board gender diversity negatively moderates this relationship, implying that more gender-diverse boards may temper the use of narcissistic rhetoric. The study also highlights a positive link between financial performance and organizational narcissistic rhetoric. These findings contribute to the literature on organizational behavior and communication strategies, offering theoretical insights and practical implications for corporate leaders and policymakers.

Keywords: ESG; organizational narcissism; organizational narcissistic rhetoric; board gender diversity; legitimacy theory; content analysis; NLP.

4.1 Introduction

Environmental, social, and governance (ESG) considerations have become a focal point for various stakeholders, shaping academic research, business operations, and regulatory frameworks (Albitar et al., 2023; Eliwa et al., 2023; Mahran & Elamaer, 2024b; Orazalin et al., 2024). This growing focus highlights the increasing recognition that businesses impact not only financial outcomes but also broader societal and environmental concerns, reflecting the interests of investors, customers, employees, and communities (Bhandari et al., 2022; Khatib et al., 2021). As a result, companies are under constant pressure to align with these expectations and maintain their legitimacy in the eyes of stakeholders (Lee et al., 2023). To achieve this, corporate disclosure has become a key mechanism through which organizations communicate their performance, using transparency and strategic narrative to reinforce their alignment with societal values and secure their social license to operate (Merkley, 2014; Shan, 2019).

Prior research has primarily focused on the relationship between corporate ESG performance and the extent of corporate disclosure, such as the amount and type of information provided (e.g., Baldini et al., 2018; Giannarakis et al., 2017; Eliwa et al., 2023; Saputra & Murwaningsari, 2021; Wong & Zhang, 2022). However, there has been relatively little exploration into how ESG performance affects the rhetorical strategies and language organizations use in their disclosures (e.g., Asay et al., 2017; Emett, 2019; Lu et al., 2019). Given the significance of language in corporate disclosure and its impact on stakeholder perception, this study contributes to this emerging body of literature by investigating the relationship between ESG performance and organizational narcissistic rhetoric in corporate narrative disclosure within UK firms. Specifically, the research seeks to answer two key questions: *1) How does ESG performance impact the use of narcissistic rhetoric in corporate disclosures? 2) To what extent does board gender diversity influence this relationship?* By addressing these questions, the study provides practical insights that can guide both practitioners and researchers in understanding how firms utilize rhetorical strategies to convey their ESG achievements and manage their public image effectively.

In the organizational context, while research on narcissism has mainly focused on it as an individual trait and examined how leadership narcissistic behavior influences corporate outcomes (e.g., Al-Shammari et al., 2019; Chatterjee & Hambrick, 2007; Cragun et al., 2020; Ingersoll et al., 2019; Kind et al., 2023; Marquez-Illescas et al., 2019), Brown (1997) suggests that organizations, much like individuals, can also engage in narcissistic behaviors, to maintain their legitimacy and safeguard their status and reputation. Organizational narcissism exists on a spectrum, affecting behavior and external communications in different ways (Craig & Amernic, 2011). Organizations with low levels of narcissism may struggle with visibility and self-advocacy, potentially failing to assert their strengths and secure their market position. Conversely, organizations with high levels of narcissism risk credibility issues and stakeholder alienation due to excessive self-promotion. A balanced level of narcissism allows organizations to project confidence and pride in their achievements while avoiding the pitfalls of grandiosity, thus maintaining credibility and effectively engaging with stakeholders (Brown, 1997; Duchon & Burns, 2008). As organizations frequently rely on annual reports to communicate their performance and strategic direction, these reports often incorporate elements of narcissistic rhetoric that emphasize the organization's achievements and assert its authority (Duchon & Drake, 2009). This rhetoric reinforces a sense of entitlement to rewards and underscores the organization's perceived superiority (Anglin et al., 2018b). Craig and Amernic (2011) argue that this rhetoric is not a reflection of the individual psychology of leaders, such as the Chief Executive Officer (CEO), but it serves as a collective expression of the organization's values, aspirations, and self-concept. Consequently, this collective narrative helps reinforce the organization's status and reputation, positioning it as not only successful but superior (Brown, 1997; Duchon & Burns, 2008).

Building on this framework, the connection between ESG performance and narcissistic language in corporate financial disclosures becomes more evident. While ESG achievements are integral to a company's sustainability strategy, they also provide a prime opportunity for reinforcing this collective narrative of superiority and exceptionalism through corporate communications (Mahran & Elamaer, 2024b). By projecting a company's ESG successes within annual reports, organizations can utilize narcissistic rhetoric to enhance their image by articulating a narrative of leadership and commitment to sustainability, which resonates with broader corporate narratives (Duchon & Burns, 2008). This kind of rhetoric often extends beyond direct ESG statements to encompass a wide array of operational and strategic content, illustrating the company's holistic approach to integrating ESG values. This expansive use of self-promoting rhetoric not only asserts the company's dedication to sustainability practices but also strategically positions it as a pioneering force within the industry (Anglin et al., 2018b). Thus, narcissistic language in the context of ESG performance can serve as a strategic tool to elevate the firm's standing in the market and influence stakeholder perceptions positively, echoing the organization's broader ambitions and reinforcing its market position as both a leader and an innovator in sustainability (Craig & Amernic, 2011). This approach aligns with the organizational tendency to maintain legitimacy and safeguard status, as identified in prior research, illustrating how ESG performance interplays with corporate discourse to shape and bolster a company's public persona and reputation (Lee et al., 2023; Roberts et al., 2021).

To address our research objective and answer the research questions, we analyzed a dataset comprising 1,659 firm-year observations from UK companies listed on the FTSE 350 Index, covering the period from 2012 to 2021. The UK was selected due to its robust emphasis on sustainability practices and its comprehensive regulatory framework (Moussa et al., 2023). Our study employs a Natural Language Processing (NLP) approach using Python for textual analysis. The research findings reveal a positive association between ESG performance and the use of narcissistic rhetoric in corporate narrative disclosure, suggesting that organizations with strong ESG performance tend to use more self-promotional language. However, this relationship is negatively moderated by board gender diversity, indicating that higher female representation on boards tends to reduce the extent of narcissistic rhetoric used. Additionally, our analysis demonstrates a positive relationship between financial performance and narcissistic rhetoric, suggesting that firms with better financial outcomes also engage more in self-promotional language in their disclosures.

Our study offers several key contributions to the existing literature. First, while previous research has primarily focused on the relationship between corporate performance and the content of disclosure (e.g., Baldini et al., 2018; Giannarakis et al., 2017; Eliwa et al., 2023), it has largely overlooked the language used to frame this disclosure. Our research contributes by examining the use of narcissistic rhetoric in corporate narrative disclosures, a relatively underexplored area. By analyzing how organizations utilize self-promotional language to present their achievements, we provide new insights and position this study uniquely within the field. Second, this research advances legitimacy theory by exploring how organizations use narcissistic rhetoric as a strategic tool to maintain their legitimacy. While legitimacy theory traditionally focuses on aligning organizational actions with societal norms and values (Dowling & Pfeffer, 1975; Roberts et al., 2021), our study demonstrates that narcissistic rhetoric can also play a crucial role in this process. By analyzing how firms with high ESG performance employ self-promotional language to reinforce their status and superiority, we provide a deeper understanding of how rhetorical strategies contribute to maintaining and enhancing organizational legitimacy. Third, our research emphasizes the moderating role of board gender diversity, revealing the importance of board composition in shaping how organizations communicate their performance and reinforcing the role of gender diversity in promoting more ethical and transparent corporate practices. Finally, the study offers practical implications for practitioners and policymakers. By highlighting the use of narcissistic rhetoric in corporate disclosures, our findings provide valuable insights for practitioners aiming to craft more balanced and credible reports. For policymakers, the research underscores the need for regulatory frameworks that encourage transparency and accountability in corporate reporting, ensuring that disclosures reflect a more accurate and responsible portrayal of organizational performance.

The paper is organized as follows: In section 2, we discuss the organizational narcissism and narcissistic rhetoric; Section 3 encompasses the literature review and hypothesis development; Section 4 outlines the research design, covering data collection and research models; Section 5 presents the empirical findings and discussion; Section 6 includes additional tests and robustness check; Finally, Section 7 the conclusion.

4.2 Organizational narcissism and narcissistic rhetoric

Narcissism, originally understood as an individual trait, is characterized by a self-centered personality marked by an inflated sense of self-importance, a strong need for admiration, and a lack of empathy for others (Duchon & Drake, 2009). While this concept was first explored in the realm of individual psychology, it has been extended in organizational studies to understand how leadership behaviors affect corporate outcomes (e.g., Al-Shammari et al., 2019; Chatterjee & Hambrick, 2007; Cragun et al., 2020; Ingersoll et al., 2019; Kim et al., 2018; Kind et al., 2023; Marquez-Illescas et al., 2019). Typically, narcissistic behaviors are viewed as ego-defense mechanisms designed to protect an individual's self-image. However, as Brown (1997) suggests, organizations, like individuals, are also motivated to protect their collective identity and legitimacy. To safeguard their status and reputation, organizations may engage in narcissistic behaviors. This collective effort allows individuals within the organization to work together to defend the system's identity and reinforce its self-concept (Iivonen & Moisander, 2015).

Organizational narcissism exists along a spectrum, affecting all organizations to some degree (Brown, 1997; Craig & Amernic, 2011). At the center of this spectrum lies healthy narcissism, which fosters self-confidence, innovation, and a strong organizational identity.

Organizations in this state are ambitious, believing in their unique qualities while remaining grounded. However, as Duchon and Burns (2008) observe, moving toward extreme on this continuum can lead to destructive consequences. Too little narcissism leaves organizations vulnerable to self-doubt, passivity, and stagnation, making it difficult for them to assert themselves in competitive markets. On the other hand, excessive narcissism leads to overconfidence, entitlement, and unethical behavior, which can result in harmful decisions and ultimately damage the organization's reputation and functioning (Brown, 1997; Duchon & Burns, 2008). The dangers of extreme organizational narcissism are further illustrated by Stein (2003), who identifies five key attributes. First, such organizations tend to elevate themselves above others, seeing themselves as extraordinarily special and unique. This inflated self-view fosters a strong sense of entitlement, wherein the organization expects special privileges and treatment. Additionally, they view themselves as omniscient, believing they possess superior knowledge and insight, which feeds into their decision-making process. This leads to a dismissive attitude toward others—whether competitors, stakeholders, or external information—treating them with contempt. Over time, these characteristics become embedded in the organization's culture, making it rigid, inward-focused, and resistant to external influence or change.

In their pursuit of maintaining legitimacy and protecting their identity, organizations often employ narcissistic ego-defense mechanisms, especially when faced with external threats or conflicts (Duchon & Burns, 2008). These mechanisms include denial, where they downplay unfavorable facts, and rationalization, where they construct justifications for their actions to fit a preferred narrative. Organizations may also engage in self-aggrandizement, exaggerating their achievements to enhance their reputation. When they experience success, attributional egotism leads them to attribute these successes solely to their internal qualities, while failures are blamed on external factors. Furthermore, a sense of entitlement often emerges, with the organization expecting special privileges based on its perceived superiority (Duchon & Drake, 2009; Iivonen & Moisander, 2015).

To sustain a favorable self-image, organizations frequently rely on annual reports to communicate their desired message, which often includes elements of narcissistic rhetoric (Iivonen & Moisander, 2015). These reports are not only used to justify the organization's actions but also to highlight its strengths while omitting any negative aspects (Duchon & Drake, 2009). Narcissistic rhetoric within these reports emphasizes the organization's achievements and asserts its authority, reinforcing a sense of entitlement to certain rewards or privileges (Anglin et al., 2018b). This form of communication reflects an idealized version of the organization, positioning it as unique and deserving of recognition. Importantly, this rhetoric is not a reflection of the individual psychology of leaders, such as the CEO. Rather, it serves as a collective expression of the organization's values, aspirations, and self-concept (Craig & Amernic, 2011). By presenting a narrative of superiority and deservedness, the organization signals its identity and accomplishments in a way that aligns with its desired public image (Stein, 2003). In this sense, organizational narcissistic rhetoric resembles the communication strategies of trade associations, which represent the collective interests of their members. The language used is authorized and endorsed by leadership, thereby embodying the organization's shared identity, goals, and sense of legitimacy (Iivonen & Moisander, 2015). This collective narrative, steeped in narcissistic rhetoric, reinforces the organization's status and reputation, positioning it as not just successful but superior (Brown, 1997; Duchon & Burns, 2008).

4.3 Literature Review and Hypotheses Development

4.3.1 ESG performance and Narcissistic rhetoric

According to legitimacy theory perspectives, organizations continuously seek to align themselves with societal norms and values to maintain their legitimacy and social acceptance (Dowling & Pfeffer, 1975; Lee et al., 2023; Roberts et al., 2021). Disclosure plays a central role in this process, as it allows organizations to communicate their alignment with societal expectations through public reporting, press releases, and other forms of corporate communication (Jin et al., 2024; Khatib et al., 2021). Organizations use disclosure not only to present their achievements but also to address potential legitimacy gaps by explaining their actions, framing their strategies in line with societal norms, and demonstrating accountability (Nirino et al., 2021). Prior studies emphasize that organizations strategically use reporting and communication efforts to maintain their legitimacy. For instance, Giannarakis et al. (2017) found that companies with poor environmental performance increase their disclosures to mitigate negative perceptions, while Baldini et al. (2018) observed that firms with weaker ESG performance often produce detailed sustainability reports to present themselves as socially responsible. Similarly, Wong and Zhang (2022) demonstrated that organizations amplify their disclosures in response to negative media coverage, aiming to restore legitimacy and reassure stakeholders. Saputra and Murwaningsari (2021) further support this, showing that sustainability reports act as tools to shape stakeholder perceptions and reinforce legitimacy.

In addition to the content of disclosures, the language organizations use plays a critical role in maintaining legitimacy. Previous studies have demonstrated that specific rhetorical strategies are frequently employed to address legitimacy gaps and shape stakeholder perceptions. For instance, companies often adopt a positive or assertive tone to emphasize their strengths and downplay any shortcomings, thereby reinforcing a favorable image (e.g., Lu et al., 2019; Merkley, 2014; Shan, 2019). Furthermore, organizations carefully adjust the readability of their disclosures by manipulating the complexity of their language. This strategic management allows them to either enhance transparency or obscure unfavorable details, depending on the context and their strategic goals (e.g., Asay et al., 2017; Du & Yu, 2021; Hasan, 2020). Additionally, future-oriented language is commonly employed, where organizations focus on their long-term goals and strategic plans, projecting confidence in their ability to overcome challenges and achieve sustainability, thus shifting focus away from current issues (e.g., Emett, 2019; Hussainey & Al-Najjar, 2011).

One potential avenue through which organizations can enhance their legitimacy, particularly in the context of strong ESG performance, is through the use of narcissistic rhetoric in their communication strategies (Duchon & Drake, 2009; Iivonen & Moisander, 2015). In this context, we argue that organizations with strong ESG performance may leverage narcissistic rhetoric to amplify their achievements and assert their superiority in the market. This rhetoric often involves projecting authority and self-sufficiency, positioning the organization as a leader in sustainability and corporate responsibility (Anglin et al., 2018b). By showcasing their ESG successes as not only significant but exceptional, organizations can effectively differentiate themselves from competitors and reinforce their favorable image (Iivonen & Moisander, 2015). This approach reflects a sense of superiority and entitlement, framing their achievements as deserving of special recognition and reward (Stein, 2003). The organization highlights its strategic initiatives and sustainability milestones as examples of inherent excellence and unmatched capabilities. Narcissistic rhetoric also includes elements of exhibitionism and vanity, where the organization emphasizes its accomplishments to captivate and impress stakeholders (Duchon & Burns, 2008). By portraying their successes as superior to those of their peers, organizations aim to project an image of exceptionalism and positively influence public perception. Furthermore, such rhetoric can foster a sense of exploitiveness, where the organization leverages its achievements to gain additional benefits or advantages, reinforcing its power and prestige (Anglin et al., 2018b; Duchon & Drake, 2009). Based on the prior discussion, we propose the following:

H1: *There is a positive relationship between ESG performance and the extent of narcissistic rhetoric employed in corporate disclosure.*

4.3.2 The moderating effect of board gender diversity

Prior literature identifies board gender diversity as a critical factor in corporate governance that influences various firm outcomes, including corporate disclosure practices (e.g., Cucari et al., 2018; Eliwa et al., 2023; Giannarakis, 2014; Liao et al., 2015; Seebeck & Vetter, 2021; Tingbani et al., 2020). For example, Tingbani et al. (2020) and Liao et al. (2015) found a positive association between gender diversity on boards and the likelihood of disclosing greenhouse gas information, as well as the extensiveness of these disclosures. Similarly, Seebeck and Vetter (2021) observed that greater board gender diversity was linked to increased corporate risk disclosures. However, Cucari et al. (2018) reported a negative relationship between board gender diversity and ESG disclosures, which they attributed to the low representation of women and their perceived lack of expertise. Giannarakis (2014) found no significant relationship between board gender diversity and the level of Corporate Social Responsibility (CSR) disclosure.

Beyond the content of disclosures, prior research has also examined the role of board gender diversity in shaping the language used in corporate communication. Albitar et al. (2023) found that companies with more gender-diverse boards tend to use a less positive tone in CSR narrative reporting. Further, Bassyouny et al. (2020) noted that increasing female board representation amplifies the negative relationship between female CEOs and the use of a positive tone in disclosure. In terms of clarity, Nadeem (2022) discovered that board gender diversity positively impacts the readability of 10-K reports, indicating that female directors contribute to clearer, more accessible corporate communication. On the other hand, Benameur et al. (2023) found that firms with more gender-diverse boards are less likely to use future-oriented language, which suggests a more cautious or measured communication style. Therefore, by extending this understanding to corporate narcissistic rhetoric, it can be argued that board gender diversity may also influence the extent of such rhetoric in corporate disclosures.

In this regard, gender socialization theory provides a valuable framework for understanding the moderating effect of board gender diversity on the relationship between ESG performance and organizational narcissistic rhetoric (Boulouta, 2013; Eliwa et al., 2023). According to this theory, men and women are socialized differently, leading to distinct behavioral tendencies and decision-making styles (Wahid, 2019). Women, for instance, are often associated with more collaborative, ethical, and cautious approaches, which can significantly influence corporate communication strategies (Graham et al., 2017). Prior studies suggest that the presence of women on boards enhances the quality of board discussions, as female directors tend to be better prepared for meetings (Huse & Solberg, 2006). Their involvement has been linked to reduced corporate fraud (Lenard et al., 2017), improved earnings quality and less earnings management (Cumming et al., 2015), fewer instances of aggressive tax avoidance (Francis et al., 2014), and a lower likelihood of financial restatements (Pucheta-Martínez et al., 2016).

In firms with low board gender diversity, the absence of moderating influences might allow more space for narcissistic rhetoric to flourish, particularly in the context of ESG performance. This phenomenon could be influenced by several factors. Predominantly male boards, characterized by assertive and self-affirming communication styles, might project a different set of risk perceptions and confidence levels, which could lead to a more narcissistic portrayal of sustainability efforts (Eliwa et al., 2023). Using ESG achievements as a means to project strength and control could be particularly appealing in these settings. Additionally, cultural and normative frameworks where traditional views of leadership prevail could exacerbate the situation (Cucari et al., 2018). The reduction in gender diversity might reinforce norms that value aggressive and self-centric narratives, lacking the counterbalancing effect of gender-diverse perspectives that typically promote a broader range of stakeholder concerns and ethical considerations (Bassyouny et al.; Mahran & Elamer, 2024a). Furthermore, firms with low gender diversity might also cater to perceived stakeholder expectations that favor decisive and authoritative figures, using ESG disclosures as a platform to reinforce their leadership image (Seebeck & Vetter, 2021).

Conversely, when women hold a more significant presence on corporate boards, they may soften the use of narcissistic rhetoric that emphasizes authority, superiority, or exhibitionism, steering corporate disclosures toward a more balanced and grounded narrative (Anglin et al., 2018b). Female directors, often associated with collaborative and ethical leadership styles, are likely to discourage overly self-promotional language that exaggerates corporate achievements (Graham et al., 2017). This influence can moderate the tendency of organizations with strong ESG performance to over-amplify their successes or project an inflated image, ensuring that such accomplishments are communicated in a more measured and realistic manner. Instead, female board members may encourage more transparent, ethical, and responsible communication, focusing on genuine stakeholder engagement and aligning with sound governance practices (Mahran & Elamer, 2024a). By promoting a narrative grounded in integrity, they help ensure that the company's ESG achievements are presented authentically, responsibly, and in a way that fosters long-term trust and credibility, rather than engaging in excessive self-promotion or vanity (Eliwa et al., 2023). Based on the prior discussion, we propose the following:

H2: *Board gender diversity moderates the relationship between ESG performance and the extent of narcissistic rhetoric employed in corporate disclosure.*

4.4 Research Design

4.4.1 Sample selection and data collection

Our initial sample consists of companies listed on the FTSE 350 Index, traded on the London Stock Exchange (LSE) in the UK from 2012 to 2021. The choice of the UK FTSE 350 index is motivated by its representation of firms with the highest market capitalization, making them a central focus for investors, professional bodies, and regulators (Mahran & Elamer, 2024b; Tingbani et al., 2020). Importantly, this index includes diverse industries and includes major firms expected to showcase proactive ESG practices and a commitment to fostering gender diversity. The inclusion of significant firms from various sectors allows for a comprehensive assessment of disclosures and facilitates reasonable extrapolation of findings (Brammer & Pavelin, 2006). Additionally, we selected 2012 as the starting point due to the significant rise in ESG commitment among these firms during this period, which reflects a broader shift towards sustainability practices (Al-Shaer et al., 2023). The sample selection process involved the exclusion of 133 financial companies, attributed to their distinct regulatory requirements and accounting practices in comparison to non-financial companies (Al-Najjar & Abualqumboz, 2024). Additionally, 17 companies were eliminated due to data gaps and the unavailability of transferable PDF annual reports in text format. Consequently, the final sample consists of 200 firms, amounting to 1659 observations, meeting the criteria for a consistent and comprehensive data analysis.

To conduct our textual analysis and measure corporate narcissistic rhetoric, we collected the available annual reports of these companies in PDF format from Bloomberg and their respective websites. Our choice to examine the entirety of the corporate narrative disclosure, rather than solely focusing on ESG-specific disclosures, is informed by the understanding that ESG performance may not be solely confined to explicitly labeled ESG sections. Given that managers may interpret ESG performance as integral to overall process performance—a key component of the balanced scorecard approach—the influence of ESG on corporate rhetoric can permeate throughout the entire document. Consequently, narcissistic rhetoric prompted by ESG achievements may also manifest in non-ESG-related sentences, such as those discussing broader operational and strategic outcomes. This comprehensive approach allows us to capture the full spectrum of how ESG performance influences corporate communication, including in areas not directly associated with traditional ESG metrics but integral to the company's operations and strategic direction. Additionally, data on ESG, financial, and governance metrics were compiled from Refinitiv Eikon. Table 4.1 details the industrial breakdown of our sample, categorized according to the DataStream Industry Classification Benchmark (ICB) level 1 industries, encompassing ten distinct groups.

Table 4.1 Sample industrial composition

Industry	Companies	Observations	Percentage
Basic Materials	16	139	8.38
Consumer Discretionary	46	366	21.96
Consumer Staples	19	175	10.56
Energy	8	62	3.74
Health Care	10	84	5.08
Industrials	50	438	26.43
Real Estate	27	230	13.88
Technology	11	61	3.68
Telecommunications	6	44	2.65
Utilities	7	62	3.74
Total	**200**	**1659**	**100**

4.4.2 Research model

In order to assess the relationship between ESG performance and narcissistic rhetoric and test H1, we employ the following model.

$$NAR\_RHET_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 CEO\_DUAL_{i,t} + \beta_3 CEO\_FINEXP_{i,t} + \beta_4 CEO\_GEND_{i,t} + \beta_5 B\_SIZE_{i,t} + \beta_6 B\_INDEP_{i,t} + \beta_7 AC\_INDEP_{i,t} + \beta_8 AGE_{i,t} + \beta_9 SIZE_{i,t} + \beta_{10} LIQ_{i,t} + \beta_{11} Year_{i,t} + \beta_{12} Ind_{i,t} + \beta_{13} Firm_{i,t} + \varepsilon_{i,t} \quad (1)$$

Where $NAR\_RHET_{i,t}$ refers to the narcissistic rhetoric of firm i at time t, and $ESG_{i,t}$ refers to corporate ESG performance. All other variables are defined and measured in Table 4.2.

Table 4.2 Variables description

Variable	Symbol	Details
ESG performance	ESG	Derived from the Refinitiv ESG database, the Refinitiv ESG scores are determined by aggregating the total scores assigned to firms based on their dedication to three distinct ESG dimensions: environmental, social, and governance.
Narcissistic rhetoric (%)	NAR_RHET	Derived by summing the scores for Authority, Superiority, Exhibitionism, Vanity, Self-sufficiency, Entitlement, and Exploitativeness divided by total words and then multiplied by 100 based on the wordlist devised by Anglin et al. (2018b).
CEO gender	CEO_GEND	Measured as a dummy variable equal to 1 for female CEOs, and 0 otherwise. Data obtained from the Refinitiv database.
CEO duality	CEO_DUAL	Measured as a dummy variable equal to 1 if CEO also serves as chairman, and 0 otherwise. Data obtained from the Refinitiv database.
Board size	B_SIZE	Measured as the total number of members comprising the board of directors. Data obtained from the Refinitiv database.
Board independence (%)	B_INDEP	Measured as the proportion of independent non-executive directors to the total number of directors within the board. Data obtained from the Refinitiv database.
Firm age	AGE	Measured as the number of years since the firm's incorporation. Data obtained from the Refinitiv database.
Firm size	SIZE	Measured as the natural logarithm of a company's total assets. Data obtained from the Refinitiv database.
Firm profitability	ROA	Calculated as net income divided by total assets. Data obtained from the Refinitiv database.
Firm liquidity	LIQ	Calculated by dividing a firm's current assets by its current liabilities. Data obtained from the Refinitiv database.
CEO financial experience	CEO_FINEXP	Measured as a dummy variable equal to 1 if the CEO has prior work experience in banks, financial institutions, and the investment sector, and 0 otherwise. Data obtained from the Refinitiv database.
Board gender diversity (%)	B_GEN_DIV	Calculated as the percentage of female directors to the total number of directors within the board. Data obtained from the Refinitiv database.
Audit committee independence (%)	AC_INDEP	Measured as the percentage of independent members within the audit committee. Data obtained from the Refinitiv database.

4.4.3 Variables measurements

4.4.3.1 Dependent variable: Narcissistic rhetoric (NAR_RHET)

To measure corporate narcissistic rhetoric, the author employed an NLP approach for textual analysis, following the methodology of Loughran and McDonald (2011). the author utilized the wordlist created by Anglin et al. (2018b)[2], which identifies distinct words associated with

[2] In the validation process of our measurement approach for narcissistic rhetoric within corporate narrative disclosure, the author selected a sample of 10 companies. Their corporate narratives were independently analyzed and manually coded by two trained researchers to identify instances of narcissistic rhetoric based on predefined criteria. This manual coding process demonstrated significant agreement between the researchers, thereby

each of the seven components of narcissistic rhetoric. The components and their corresponding word counts are as follows: Authority (316 words), Superiority (626 words), Exhibitionism (580 words), Vanity (248 words), Self-sufficiency (317 words), Entitlement (34 words), and Exploitativeness (146 words). Our textual analysis primarily focuses on the narrative sections of companies' annual reports, as these sections fall within the scope of firms. Therefore, after collecting the annual reports of sample companies in PDF format, and prior the textual analysis we excluded the notes of financial statements due to their descriptive nature and the absence of opportunities for corporate-driven disclosure. Similarly, the external auditor report was omitted, as it pertains to the responsibilities of external auditors and does not represent companies' narrative disclosure (Bassyouny et al., 2020).

Following the cleaning of the corporate narrative text, we computed the frequency of occurrences for each word list in the corporate narrative. These frequencies were then normalized by dividing the counts by the total number of words, then narcissistic rhetoric score is derived by summing the scores for the seven components (Mansouri & Momtaz, 2022). Appendix B shows examples of the language associated with the components of narcissistic rhetoric, drawn from annual reports. To perform that, we used Python software and a range of essential libraries (Bochkay et al., 2023; Ignatov, 2023). The integration of Python for conducting textual analysis that brings significant advantages compared to previous methods. Python, as a programming language, enables the seamless integration of various NLP libraries and tools, thereby optimizing the entire analysis process (Bhandari et al., 2022).

4.4.3.2 Independent variable: ESG performance (ESG)

We measured ESG performance using scores obtained from the Refinitiv Eikon database (Orazalin and Collins, 2024). These ESG scores are derived from a composite rating that reflects a firm's commitment across ESG dimensions. The environmental dimension scrutinizes a company's performance in key areas like sustainable production practices, responses to climate change, and initiatives related to eco-friendly marketing. Social aspects are assessed through considerations of business ethics, labour conditions for employees, and job security. Governance factors encompass elements such as the structure of the company's board, the quality of audits, and the transparency of information disclosure (Eliwa et al., 2021).

---

validating the accuracy of our automated keyword-based approach (Bao and Datta, 2014). Additionally, we assessed the internal consistency of our composite scores using Cronbach's alpha, which yielded a value of 0.78.

4.4.3.3 Control variables

Consistent with prior research (Al-Najjar & Abualqumboz, 2024; Bassyouny et al., 2020; Zalata & Abdelfattah, 2021), our regression models include several control variables that capture firm characteristics and governance that may have a significant impact on ESG performance. Specifically, CEO duality (*CEO_DUAL*), CEO financial expertise (*CEO_FINEXP*), CEO gender (*CEO_GEND*), board size (*B_SIZE*), board independence (*B_INDEP*), audit committee independence (*AC_INDEP*), firm age (*AGE*), firm size (*SIZE*), firm liquidity (*LIQ*). Finally, we incorporate industry fixed effects (*Ind*), year fixed effects (*Year*) and firm fixed effects (*Firm*) to account for variations in disclosure tone across different industries, firms and over time. Comprehensive definitions for each variable are provided in Table 4.2.

4.5 Empirical results and discussions

4.5.1 Descriptive statistics and correlation analysis

Table 4.3 provides the descriptive statistics of the regression variables. In terms of our dependent variable, the average value of *NAR_RHET* is 3.74, signifying that, on average, companies in our sample exhibit 3.74% narcissistic language in their narratives. Regarding our independent variables, the highest *ESG* score reached an impressive 95.26, while the lowest recorded ESG score was 4.77, with a mean score of 51.55. These findings highlight the diversity in ESG practices among the firms, with some demonstrating strong commitments, while others have substantial room for improvement. Nonetheless, these scores are generally consistent with those reported in previous studies (Al-Shammari et al., 2019; Eliwa et al., 2021). The sample reveals mean values of *CEO_DUAL, B_SIZE, and B_INDEP* are 0.16, 9.32, and 59.84 in a row. These figures suggest that, on average, there is a moderate presence of CEO duality, the board size is around 9 members, and the board independence is approximately 59.84%, indicating a substantial level of independence in the sampled companies. The average value of *AGE* is 30, implying that the sampled firms have an average age of 30 years. While the mean of *AC_INDEP* is 93.98. This suggests that, on average, 93.98% of audit committee members are independent.

Table 4.3 Descriptive statistics

Variable	N	Mean	Std. dev.	Min	Max
NAR_RHET (%)	1,659	3.74	0.68	0.23	7.40
ESG	1,659	51.55	10.43	4.77	95.26
CEO_GEND	1,659	0.12	0.33	0	1
CEO_DUAL	1,659	0.16	0.36	0	1
CEO_FINEXP	1,659	0.22	0.42	0	1
B_SIZE	1,659	9.32	2.40	3	17
B_INDEP (%)	1,659	59.84	14.23	0	93.45
AC_INDEP (%)	1,659	93.98	13.25	0	100
AGE	1,659	30.00	26.58	1	113
SIZE	1,659	7.82	1.58	3.65	12.72
LIQ	1,659	1.27	1.23	0.20	10.91

Note: Variable definitions are provided in Table 4.2.

Table 4.4 presents the Pearson correlation coefficients, illustrating the relationships among the variables examined in the main analysis. Notably, there is a positive significant correlation between *ESG* and *NAR_RHET*. Additionally, *ESG* shows positive and significant correlations with *CEO_GEND, B_SIZE,* and *B_INDEP*, while exhibiting a negative and significant correlation with *CEO_DUAL*. The correlations between *ESG* and the other control variables align with the findings of prior research (Bochkay et al., 2019; Eliwa et al., 2023; Chen et al., 2023).

Table 4.4 Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) NAR_RHET	1.00										
(2) ESG	0.02*	1.00									
(3) CEO_GEND	0.04	0.15*	1.00								
(4) CEO_DUAL	-0.19*	-0.25*	-0.14*	1.00							
(5) CEO_FINEXP	-0.01	0.01	0.13*	-0.04	1.00						
(6) B_SIZE	0.05*	0.09*	0.14*	-0.21*	0.02	1.00					
(7) B_INDEP	-0.02	0.16*	0.02	-0.18*	-0.06*	0.15*	1.00				
(8) AC_INDEP	0.01	0.06*	-0.03	-0.06*	0.02	0.14*	0.40*	1.00			
(9) AGE	-0.06*	-0.04	0.03	-0.09*	0.05*	0.13*	0.14*	0.08*	1.00		
(10) SIZE	-0.07*	0.14*	0.15*	-0.24*	0.00	0.60*	0.36*	0.16*	0.17*	1.00	
(11) LIQ	-0.05*	0.25*	-0.04	0.03	-0.04	-0.12*	0.01	0.00	-0.11*	-0.19*	1.00

Note: Variable definitions are provided in Table 4.2 .*** $p<0.01$, ** $p<0.05$, * $p<0.1$

4.5.2 Multivariate results and discussion

4.5.2.1 ESG performance and Corporate narcissistic rhetoric

The regression results for H1 are presented in column (1) of Table 4.5, focusing on the relationship between ESG performance and corporate narcissistic rhetoric. For conciseness, we report coefficients solely for our variables of interest, *ESG.* The results from Model 1 indicate that *ESG* is positive and statistically significant with a coefficient of 5.69 ($p < 0.01$). These findings strongly support the acceptance of H1, suggesting a positive relationship between ESG performance and corporate narcissistic rhetoric. These results align with prior research that shows companies often use corporate disclosures and strategic rhetoric to showcase their strong performance (e.g., Duchon & Drake, 2009; Iivonen and Moisander, 2015; Jin et al., 2024; Khatib et al., 2021). Additionally, the significance of these results is reinforced by the theoretical underpinnings of legitimacy theory. According to this theory, organizations continuously seek to align themselves with societal norms and values to maintain their legitimacy and social acceptance (Dowling & Pfeffer, 1975). In this context, the use of narcissistic rhetoric in corporate disclosures can be seen as a strategic tool to emphasize an organization's strong ESG performance. By projecting authority, superiority, and self-sufficiency, companies reinforce their alignment with societal expectations and maintain their legitimacy (Iivonen & Moisander, 2015). In terms of control variables, we observe that the coefficients are generally in line with previous research (Al-Shammari et al., 2019; Bochkay et al., 2019; Eliwa et al., 2023; Chen et al., 2023).

Table 4.5 The relationship between ESG performance, narcissistic rhetoric and board gender diversity

	(1)	NAR_RHET (Mod)	
	NAR_RHET	(2)	(3)
		Low B_GEN_DIV	High B_GEN_DIV
ESG	0.012***	0.018***	-.003
	(5.69)	(5.34)	(-0.71)
CEO_DUAL	-0.131***	-0.174***	-0.174***
	(-3.57)	(-3.53)	(-2.75)
CEO_FINEXP	0.002	0.021	0.072
	(0.07)	(0.38)	(1.35)
CEO_GEND	-0.038	-0.082	0.031
	(-0.88)	(-1.05)	(0.56)
B_SIZE	-0.007	0.018	0.014
	(-0.58)	(0.85)	(0.85)
B_INDEP	0.004***	0.004**	0.005**
	(3.35)	(2.04)	(2.52)
AC_INDEP	0.003**	-0.004**	-0.006
	(-2.57)	(-2.19)	(-0.29)
AGE	0.39	-0.454**	-0.224
	(1.55)	(-1.96)	(-0.64)
SIZE	0.16***	0.119**	-0.000
	(4.91)	(2.40)	(-0.00)
LIQ	0.01	0.010	-.006
	(0.85)	(0.61)	(-0.29)
_cons	-4.77	8.97**	8.31
	(-1.00)	(2.56)	(1.24)
Year fixed effect	Included	Included	Included
Industry fixed effect	Included	Included	Included
Firm fixed effect	Included	Included	Included
Observations	1659	858	801
adj. R^2	0.68	0.67	0.77

Notes: The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 4.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

4.5.2.2 ESG performance and Corporate narcissistic rhetoric: the moderating effect of board gender diversity

In the context of H2, Table 4.5 reveals insightful findings regarding the moderating effect of board gender diversity on the relationship between ESG performance and corporate narcissistic rhetoric. To explore this moderating effect, we categorized our sample into two groups: low and high board gender diversity. Columns 3 and 4 of Table 4.5 reveal that the coefficient for *ESG* is positive and significant only in the low B_GEN_DIV subsample (5.34, $p < 0.01$), while it is insignificant in the high B_GEN_DIV subsample. These findings provide robust support for our second hypothesis, demonstrating that board gender diversity moderate our main relationship. This moderation underscores the critical role of board gender diversity in tempering the use of narcissistic rhetoric in corporate disclosures. Specifically, in firms with low gender diversity, strong ESG performance is more likely to be amplified through assertive and self-promotional language. However, in firms with higher gender diversity, this tendency is mitigated, suggesting that female directors may encourage a more balanced and grounded narrative, reducing the reliance on exaggerated or narcissistic rhetoric. Furthermore, these results align with gender socialization theory, which posits that women bring more collaborative, ethical, and cautious decision-making styles to board discussions, potentially leading to more transparent and responsible corporate communication (Boulouta, 2013; Eliwa et al., 2023).

4.6 Additional Analysis and Robustness checks

4.6.1 Additional analyses

In this section, we examine the association between various dimensions of ESG and organizational narcissistic rhetoric. Additionally, we evaluate the impact of financial performance on the extent of using narcissistic rhetoric in corporate disclosure.

4.6.1.1 ESG components and Narcissistic rhetoric

As shown in Table 4.6, the results in column (1) reveal positive significant association between *E_PERF* and *NAR_RHET* ($t = 3.23$, $p < 0.01$). This suggests that firms with stronger environmental performance are more likely to employ narcissistic language in their disclosures. Similarly, in column (2), the coefficient for *S_PERF* is also positive and highly significant ($t = 9.64$, $p < 0.01$), indicating that social performance is a key driver of the use of narcissistic rhetoric. However, in column (3), the coefficient for *G_performance* is statistically insignificant, suggesting that governance performance does not have a meaningful impact on the use of narcissistic rhetoric in corporate disclosures. In practical terms, the findings suggest that companies tend to highlight their achievements in environmental and social performance through self-promotional or assertive language in their disclosures. This indicates that firms with strong environmental initiatives (such as reducing emissions or promoting sustainability) and those excelling in social aspects (like diversity or community engagement) are more inclined to use corporate rhetoric that emphasizes their leadership and success in these areas. On the other hand, governance performance—such as the quality of board oversight or compliance with regulations—does not appear to motivate the same level of self-promotion. This may suggest that while environmental and social efforts are seen as more visible or valuable to stakeholders, governance performance might be viewed as more of a baseline expectation, rather than a differentiating factor worth highlighting through narcissistic rhetoric.

Table 4.6 The relationship between E, S, and G performance, and narcissistic rhetoric

	(1) **NAR_RHET**	**(2)** **NAR_RHET**	**(3)** **NAR_RHET**
E_PERF	0.003^{***}		
	(3.23)		
S_PERF		0.015^{***}	
		(9.64)	
G_PERF			-0.001
			(-0.63)
Control variables	Included	Included	Included
_cons	-4.015	-6.13	-4.84
	(-0.83)	(-1.31)	(-1.00)
Year fixed effect	Included	Included	Included
Industry fixed effect	Included	Included	Included
Firm fixed effect	Included	Included	Included
Observations	1659	1659	1659
adj. R^2	0.68	0.70	0.68

Notes: The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 4.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

4.6.1.2 Financial performance and Narcissistic rhetoric

We employed *ROA* as a metric to assess firm profitability, serving as an indicator of financial performance. As depicted in Table 4.7, the findings in column (1) reveal a positive and statistically significant coefficient for *ROA* ($t = 2.13$, $p < 0.05$). This suggests that companies tend to employ narcissistic rhetoric in their disclosures when experiencing favorable financial performance. This aligns with prior studies that suggest firms are more likely to use assertive, self-promotional language to highlight their financial success and reinforce their superior market position during periods of strong profitability (e.g., Jin et al., 2024; Khatib et al., 2021). This strategic communication approach enables firms to project confidence and emphasize their leadership, particularly when financial outcomes are positive, thereby enhancing their image and maintaining their legitimacy among stakeholders.

Table 4.7 The relationship between financial performance and narcissistic rhetoric

	(1) **NAR_RHET**
ROA	0.004**
	(2.13)
Control variables	Included
_cons	-5.26
	(-1.09)
Year fixed effect	Included
Industry fixed effect	Included
Firm fixed effect	Included
Observations	1659
adj. R^2	0.68

Notes: The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 4.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

4.6.2 Robustness test

To ensure the robustness of our findings and address potential endogeneity issues such as self-selection bias and omitted variables, we employ a two-stage least squares (2SLS) approach. In this analysis, we use the industry mean of ESG performance (*ESG_ind_mean*) as an instrumental variable (Eliwa et al., 2023). Prior studies suggest that firms within the same industry tend to exhibit similar ESG performance at the industry level (e.g., Bhandari et al., 2022; Ignatov, 2023; Mansouri et al., 2022; Wong et al., 2022). It is assumed that *ESG_ind_mean* is exogenous, meaning it is not expected to have a direct relationship with the outcome variable of interest, corporate narcissistic rhetoric. The results of the first-stage estimation as displayed in Column 1 of Table 4.8, show that the instrumental variables *ESG_ind_mean* has a statistically significant positive coefficient ($t = 10.23$, $p < 0.01$). In Column 2 of Table 4.8, the second-stage estimates reveal a notably positive coefficient for *ESG* ($t = 4.94$, $p < 0.01$). These findings underscore that, even after addressing endogeneity concerns, there remains a significant positive relationship between ESG performance and corporate narcissistic rhetoric. This robustness check confirms the reliability of our primary results and reinforces the conclusion that organizations with higher ESG performance are more likely to use narcissistic rhetoric in their disclosures.

Table 4.8 The relationship between ESG performance and narcissistic rhetoric using 2-SLS

	First stage (1) ESG	**Second stage (2) NAR_RHET**
ESG_ind_mean	0.752***	
	(10.23)	
ESG		0.040***
		(4.94)
Control variables	Included	Included
_cons	-40.33	-4.41
	(-0.72)	(-0.94)
Year fixed effect	Included	Included
Industry fixed effect	Included	Included
Firm fixed effect	Included	Included
Observations	1659	1659
Cragg–Donald Wald F statistic	104.60	
Stock and Yogo (2005) ID test for critical values: 10% maximal IV	16.38	
Anderson canon. corr. Chi-sq.	112.343***	

Notes: The reported coefficients for each variable are accompanied by their respective t-test values enclosed in parentheses. Table 4.2 fully defines all the variables used. *, **, and *** represent significance at the 0.10, 0.05, and 0.01 levels, respectively.

4.7 Conclusion

The study empirically investigates the relationship between ESG performance and narcissistic rhetoric in corporate disclosures among UK companies, while also examining the moderating role of board gender diversity in this relationship. The findings reveal a significant positive association between ESG performance and the use of narcissistic rhetoric in corporate disclosures. In other words, organizations with strong ESG performance are more likely to employ assertive and self-promotional language to highlight their achievements and reinforce their market position. However, board gender diversity negatively moderates this relationship.

Specifically, higher levels of board gender diversity tend to reduce the extent to which ESG performance drives narcissistic rhetoric. This negative moderation suggests that female board members play a role in tempering excessive self-promotion and promoting more balanced and transparent communication.

Our findings offer significant theoretical contributions and practical implications. Theoretically, our research sheds light on the narcissistic rhetoric in corporate narrative disclosures, an area that has been relatively underexplored in literature. This investigation enriches the understanding of how narcissistic rhetoric functions within corporate communications and contributes to broader discussions on organizational behavior. Additionally, our study advances legitimacy theory by demonstrating how organizations use rhetorical strategies to maintain and enhance their legitimacy. Furthermore, the exploration of board gender diversity's moderating role provides valuable insights into the dynamics of corporate communication, offering a deeper understanding of how internal governance structures can influence external communication strategies.

Practically, the findings have important implications for various stakeholders. For corporate leaders, understanding the relationship between ESG performance and narcissistic rhetoric provides valuable insights into the delicate balance required to maintain legitimacy. This knowledge can guide them in crafting disclosures that project confidence without crossing into excessive self-promotion. Our research suggests that corporate leaders should consider implementing internal reviews and possibly third-party audits of public disclosures to ensure they reflect a balanced and humble representation of company achievements. For policymakers and regulators, our study underscores the need to promote ethical communication practices beyond merely ensuring accurate ESG reporting. It suggests that new legislation or guidelines could be introduced to enforce transparency and incentivize companies to genuinely embrace sustainability practices, fostering a more authentic approach to corporate communication. Specifically, regulators could introduce stricter disclosure standards that require a balance between positive and negative aspects of corporate performance, alongside mandatory independent audits of the narratives presented in annual reports. Such measures would help temper the impact of narcissistic rhetoric and enhance the overall credibility of corporate disclosures. Finally, for stakeholders such as investors and consumers, the study highlights the role of narcissistic rhetoric in corporate communication. Being aware of this can help them critically evaluate the true nature of corporate disclosures and make more informed decisions based on the genuine performance and practices of organizations.

Our study is subject to certain limitations that should be addressed in future research endeavors. First, the data used in our analysis is limited to UK companies listed on the FTSE 350 Index between 2012 and 2021. Future studies could expand this by examining these relationships in different countries or within small and medium-sized enterprises (SMEs) and non-publicly traded firms to provide broader insights. Second, while this research focuses on the link between ESG performance and organizational narcissistic rhetoric, future studies could investigate other aspects of communication strategies to enrich the understanding of corporate disclosure practices. Third, our study is specifically focused on investigating the existence of a link between ESG performance and organizational narcissistic rhetoric, aiming to determine whether there is a link between these elements in corporate narratives. We do not explore the spectrum of narcissistic language or assess its potential impacts. Future research may consider investigating how different levels of narcissistic rhetoric affect corporate communication and stakeholder perception, potentially establishing benchmarks for when such language becomes beneficial or detrimental. Fourth, we recognize that omitting variables such some CEO characteristics and cultural context may limit the generalizability of our findings; future studies should investigate these factors to enhance our understanding of their impact on narcissistic rhetoric in corporate narratives. Lastly, our study emphasizes the role of board gender diversity. Future research might explore a wider range of corporate governance mechanisms, to gain additional insights into how various elements of governance impact the relationship between ESG performance and corporate rhetoric.

Chapter 5

Summary and Conclusion

5.1 Summary of Findings

This thesis provides a rigorous review of CEO-environmental sustainability association and empirically investigates the relationships among OPC, ESG practices, and the use of narcissistic rhetoric in corporate disclosures, using a dataset of 1,659 firm-year observations from FTSE 350 companies between 2012 and 2021. It has three primary objectives. The first objective is to provide a comprehensive SLR on the intersection of CEO characteristics and corporate environmental sustainability, synthesizing existing studies and identifying gaps in the literature (Chapter 2). The second objective is to empirically examine the relationship between OPC and ESG performance, as well as the moderating effect of CEO power on this relationship (Chapter 3). The third objective explores the connection between ESG performance, organizational narcissistic rhetoric, and board gender diversity, focusing on how these factors influence corporate narratives (Chapter 4).

The first objective (chapter 2) synthesizes the fragmented academic research on the role of CEOs in driving environmental sustainability. By reviewing 139 studies, the systematic literature review highlights how demographic traits—such as age, tenure, and education—have been extensively studied in their impact on environmental performance. However, psychological attributes like personality, ethical leadership, and humility remain underexplored. Similarly, while quantitative aspects of environmental performance dominate the literature, qualitative dimensions of environmental disclosures, including tone and specificity, are often overlooked. The review identifies a need for broader geographic and industrial coverage, as the current research heavily focuses on developed economies like China and the United States. These findings underscore gaps in the application of theoretical frameworks and call for a more integrated approach that incorporates cross-country and cross-industry analyses. This objective provides a conceptual framework for advancing the understanding of how CEO characteristics shape environmental outcomes, emphasizing both theoretical and practical opportunities for future research.

The second objective (chapter 3) focuses on the role of OPC as a critical intangible resource in enhancing ESG performance from the RBV theoretical perspectives. OPC, which encompasses resilience, optimism, and confidence, is examined for its capacity to foster organizational adaptability, collaboration, and long-term sustainability strategies. The study demonstrates that firms with higher OPC levels are better equipped to meet ESG goals, as these psychological resources empower organizations to navigate regulatory pressures, stakeholder demands, and operational challenges. However, the research also identifies the moderating effect of CEO power on the OPC-ESG relationship, revealing that excessive CEO authority can weaken the positive influence of OPC by prioritizing short-term financial outcomes over sustainability objectives. Employing advanced NLP techniques, the analysis provides robust evidence supporting these findings. Additional tests show that OPC positively impacts all ESG dimensions—environmental, social, and governance—while also enhancing financial performance, underscoring its dual strategic value. This objective contributes to understanding how psychological resources and balanced leadership structures collectively drive corporate sustainability.

The third objective (chapter 4) investigates how firms with varying levels of ESG performance use narcissistic rhetoric in their corporate disclosures and the moderating role of board gender diversity in shaping these narratives. Companies with stronger ESG performance are found to adopt self-promotional and assertive language to amplify their achievements and enhance their corporate image. This behavior aligns with legitimacy theory, as organizations seek to align their disclosures with societal expectations and stakeholder demands. However, the presence of gender-diverse boards tempers the extent of narcissistic rhetoric, fostering more balanced and transparent communication. This dynamic reflects gender socialization theory, which highlights the influence of female directors in promoting inclusive and stakeholder-oriented approaches. Moreover, additional analyses show a positive association between financial performance and narcissistic rhetoric, suggesting that companies strategically integrate their ESG achievements and financial success into their corporate narratives. The findings underscore the importance of corporate performance in shaping narrative strategies and emphasize the value of gender-diverse leadership in enhancing corporate communication practices.

5.2 Contributions of the Thesis

This thesis contributes significantly to the academic discourse in corporate governance, sustainability, and organizational behavior by advancing the theoretical understanding of leadership dynamics, intangible resources, ESG performance, and corporate communication strategies. Through its interdisciplinary approach, it addresses critical gaps in existing research and provides new perspectives for future studies.

First, to the best of the author's knowledge, this thesis is the first to provide a SLR on the CEO–environmental sustainability relationship. It bridges critical gaps in the literature by identifying underexplored dimensions, such as the psychological traits of CEOs and their influence on both environmental performance and disclosure practices. Second, this synthesis not only addresses these gaps but also enriches the literature by proposing an expanded framework that incorporates psychological and contextual factors alongside demographic traits, offering a roadmap for future research in this field. Third, the thesis makes a pioneering contribution by highlighting OPC as one of the main intangible assets driving corporate sustainability. This study is the first to emphasize OPC's strategic importance in enhancing ESG performance, positioning it as a critical resource in achieving competitive advantages. Fourth, the research integrates the RBV and upper echelons theory to provide a comprehensive explanation of how psychological resources and leadership dynamics jointly influence corporate behavior. This integration sheds light on the pivotal role of leadership in directing organizational resources toward achieving sustainability strategies.

Five, the thesis enriches the disclosure literature by being the first to link ESG performance with a relatively understudied disclosure strategy—narcissistic rhetoric. By exploring how firms employ self-promotional narratives to project legitimacy, the research adds depth to the understanding of corporate communication strategies. Six, the thesis also focusses on the role of board gender diversity—specifically the percentage of female directors—in moderating the use of narcissistic rhetoric in ESG disclosures. This focus highlights how diverse leadership structures can foster more balanced and transparent corporate communication, advancing the discourse on the intersection of governance and sustainability. Finally, the integration of legitimacy theory and gender socialization theory, offering a nuanced perspective on how rhetorical choices are shaped by internal governance structures.

5.3 Practical Implications of the Thesis

This thesis provides several practical implications for corporate leaders, policymakers, and stakeholders, addressing critical aspects of sustainability practices, leadership dynamics, and corporate communication. First, it underscores the importance of integrating psychological factors with demographic traits to understand CEOs' motives and decision-making processes behind environmental initiatives. This insight suggests that executive training programs and leadership development initiatives should incorporate assessments and development of psychological traits such as ethical leadership and emotional intelligence. Second, organizations should refine their approaches to measuring CEO influence, compensation structures, and contextual factors to better align leadership incentives with long-term sustainability goals. Third, the findings emphasize the strategic role of OPC in enhancing corporate performance. Therefore, organizations should foster that by providing initiatives such as resilience training, optimism-building workshops, and confidence-enhancing programs can create a positive organizational culture that drives sustainability practices.

Fourth, the influence of CEO power on sustainability outcomes highlights the need for balanced governance structures. Companies should implement mechanisms that prevent the excessive concentration of executive authority, such as establishing independent board oversight, enforcing term limits for top executives, and encouraging collective decision-making processes. These measures ensure that corporate strategies remain aligned with long-term sustainability goals rather than short-term financial incentives. Fifth, corporate leaders must recognize the fine line between projecting confidence and excessive self-promotion in sustainability disclosures. To maintain legitimacy, organizations should focus on transparent and balanced reporting that aligns with actual ESG achievements. Sixth, policymakers and regulators are urged to develop and enforce ethical communication guidelines for sustainability reporting. These guidelines should address not only the accuracy of ESG disclosures but also the rhetorical strategies employed, discouraging excessive self-promotion while encouraging authenticity and stakeholder alignment. Sevenths, stakeholders, including investors, consumers, and communities, should be educated on how to critically evaluate corporate disclosures. By understanding the strategic use of rhetorical techniques, such as narcissistic rhetoric, stakeholders can make informed decisions based on the authenticity and substance of ESG claims rather than superficial narratives.

5.4 Limitations and Suggestions for Future Research

Consistent with prior research in the field, this thesis has several limitations that present promising directions for future research. These limitations are tied to the scope of the data, the variables analyzed, and the methodologies employed across the studies, which can be expanded in subsequent investigations.

For the SLR study, the choice of search terms and selection criteria may have excluded relevant studies that employed alternative terminology or focused on related themes outside the specified framework. Future research could expand the scope of the review by incorporating a broader range of search terms, databases, and identification criteria to capture a more comprehensive body of literature. Moreover, the SLR focused on environmental performance and disclosure, leaving unexplored dimensions such as environmental policy, strategy, and reporting. These areas offer valuable directions for future studies aiming to deepen the understanding of CEO influence on sustainability outcomes. Additionally, mediating and moderating variables were not examined in the SLR, which presents an opportunity for future research to investigate how contextual factors and CEO attributes interact to shape environmental sustainability.

The analysis of OPC and ESG practices is limited to UK companies listed on the FTSE 350 Index between 2012 and 2021. This geographic and industry focus narrows the scope of the findings. Expanding the study to include companies from other regions, industries, or economic contexts, such as developing markets or Small and Medium-sized Enterprises (SMEs), could offer a more comprehensive understanding of how OPC influences sustainability. While the moderating role of CEO power was examined, other factors, such as board size, board meetings, and audit committee characteristics, may also play a significant role in this relationship. Future research could explore these additional moderators to provide a more nuanced view of the dynamics between intangible resources and ESG performance. Furthermore, this study focused exclusively on OPC as a psychological determinant, overlooking other intangible assets like human and social capital. Investigating these resources could further enrich the understanding of how intangible assets drive corporate sustainability efforts.

The investigation of ESG performance and organizational narcissistic rhetoric in corporate disclosures also has limitations. The analysis was again confined to UK companies listed on the FTSE 350 Index, which limits the applicability of the findings to other contexts. Future research should consider examining these relationships in other countries, industries, or non-publicly traded firms to provide broader insights into how corporate narratives evolve across diverse settings. Moreover, while this study emphasizes the role of board gender diversity, other corporate governance mechanisms, such as executive compensation structures, shareholder activism, and leadership turnover, could be examined to uncover additional factors that influence the relationship between ESG performance and corporate rhetoric. Additionally, future studies could investigate alternative communication strategies and rhetorical techniques beyond narcissistic rhetoric, providing a more holistic understanding of corporate disclosure practices.

References

Aabo, T., & Giorici, I. C. (2022). Do female CEOs matter for ESG scores? *Global Finance Journal, 56,* 100722. https://doi.org/10.2139/ssrn.4123530

Abatecola, G., & Cristofaro, M. (2019). Ingredients of sustainable CEO behaviour: Theory and practice. *Sustainability, 11*(7), 1950. https://doi.org/10.3390/su11071950

Abdullah, Zhu, N., Hashmi, M. A., & Shah, M. H. (2024). CEO power, board features and ESG performance: An extensive novel moderation analysis. *Corporate Social Responsibility and Environmental Management,* 1–29. https://doi.org/10.1002/csr.2886

Abebe, M. A., & Acharya, K. (2022). Founder CEOs and corporate environmental violations: Evidence from S&P 1500 firms. *Business Strategy and the Environment, 31*(3), 1204–1219. https://doi.org/10.1002/bse.2950

Abernethy, M. A., Kuang, Y. F., & Qin, B. (2019). The relation between strategy, CEO selection, and firm performance. *Contemporary Accounting Research, 36*(3), 1575–1606. https://doi.org/10.1111/1911-3846.12463

Aboud, A., Saleh, A., & Eliwa, Y. (2024). Does mandating ESG reporting reduce ESG decoupling? Evidence from the European Union's Directive 2014/95. *Business Strategy and the Environment, 33*(2), 1305–1320.

Adams, R. B., Almeida, H., & Ferreira, D. (2005). Powerful CEOs and their impact on corporate performance. *The Review of Financial Studies, 18*(4), 1403–1432. https://doi.org/10.1093/rfs/hhi030

Adomako, S., & Amankwah-Amoah, J. (2021). Managerial attitude towards the natural environment and environmental sustainability expenditure. *Journal of Cleaner Production, 326,* 129384. https://doi.org/10.1016/j.jclepro.2021.129384

Adu, D. A., Al-Najjar, B., & Sitthipongpanich, T. (2022a). Executive compensation, environmental performance, and sustainable banking: The moderating effect of governance mechanisms. *Business Strategy and the Environment, 31*(4), 1439–1463. https://doi.org/10.1002/bse.2963

Adu, D. A., Flynn, A., & Grey, C. (2022b). Executive compensation and sustainable business practices: The moderating role of sustainability-based compensation. *Business Strategy and the Environment, 31*(3), 698–736. https://doi.org/10.1002/bse.2913

Aguilera, R. V., Aragón-Correa, J. A., Marano, V., & Tashman, P. A. (2021). The corporate governance of environmental sustainability: A review and proposal for more integrated research. *Journal of Management, 47*(6), 1468–1497. https://doi.org/10.1177/0149206321991212

Ahn, Y. (2020). A socio-cognitive model of sustainability performance: Linking CEO career experience, social ties, and attention breadth. *Journal of Business Ethics, 175,* 1–19.

Aibar-Guzmán, B., & Frías-Aceituno, J. V. (2021). Is it necessary to centralize power in the CEO to ensure environmental innovation? *Administrative Sciences, 11*(1), 27. https://doi.org/10.3390/admsci11010027

Albitar, K., Abdoush, T., & Hussainey, K. (2023). Do corporate governance mechanisms and ESG disclosure drive CSR narrative tones?. *International Journal of Finance & Economics*, *28*(4), 3876-3890. https://doi.org/10.1002/ijfe.2625

Alhmood, M. A., Shaari, H., & Al-dhamari, R. (2020). CEO characteristics and real earnings management in Jordan. *International Journal of Financial Research, 11*(4), 255–266. https://doi.org/10.5430/ijfr.v11n4p255

Allam, A., Moussa, T., & Elmarzouky, M. (2024). Examining the relationship between CEO power and modern slavery disclosures: The moderating role of board gender diversity in UK companies. *Business Strategy and the Environment,* 1–19. https://doi.org/10.1002/bse.3910

Al-Najjar, B., & Abualqumboz, M. (2024). Do CEO career dynamics matter in environmental management? New evidence from the United Kingdom. *European Management Review*, *21*(2), 315-336. https://doi.org/10.1111/emre.12592

Al-Shaer, H., & Zaman, M. (2019). CEO compensation and sustainability reporting assurance: Evidence from the UK. *Journal of Business Ethics, 158*(1), 233–252. https://doi.org/10.1007/s10551-017-3735-8

Al-Shaer, H., Albitar, K., & Liu, J. (2023). CEO power and CSR-linked compensation for corporate environmental responsibility: UK evidence. *Review of Quantitative Finance and Accounting, 60*(3), 1025–1063. https://doi.org/10.1007/s11156-022-01118-z

Al-Shammari, M., Rasheed, A., & Al-Shammari, H. A. (2019). CEO narcissism and corporate social responsibility: Does CEO narcissism affect CSR focus? *Journal of Business Research, 104,* 106–117. https://doi.org/10.1016/j.jbusres.2019.07.005

Alshbili, I., & Elamer, A. A. (2020). The influence of institutional context on corporate social responsibility disclosure: A case of a developing country. *Journal of Sustainable Finance & Investment, 10*(3), 269–293. https://doi.org/10.1080/20430795.2019.1677440

Alshbili, I., Elamer, A. A., & Moustafa, M. W. (2021). Social and environmental reporting, sustainable development, and institutional voids: Evidence from a developing country. *Corporate Social Responsibility and Environmental Management, 28*(2), 881–895. https://doi.org/10.1002/csr.2096

Alshebami, A. S. (2021). The influence of psychological capital on employees' innovative behavior: Mediating role of employees' innovative intention and employees' job satisfaction. *SAGE Open, 11*(3), 21582440211040809. https://doi.org/10.1177/21582440211040809

Amran, A., Periasamy, V., & Zulkafli, A. H. (2014). Determinants of climate change disclosure by developed and emerging countries in Asia Pacific. *Sustainable Development, 22*(3), 188–204.

Anglin, A. H., Short, J. C., Drover, W., Stevenson, R. M., McKenny, A. F., & Allison, T. H. (2018a). The power of positivity? The influence of positive psychological capital language on crowdfunding performance. *Journal of Business Venturing, 33*(4), 470–492. https://doi.org/10.1016/j.jbusvent.2018.03.003

Anglin, A. H., Wolfe, M. T., Short, J. C., McKenny, A. F., & Pidduck, R. J. (2018b). Narcissistic rhetoric and crowdfunding performance: A social role theory perspective. *Journal of Business Venturing*, *33*(6), 780-812. https://doi.org/10.1016/j.jbusvent.2018.04.004

Arena, C., Michelon, G., & Trojanowski, G. (2018). Big egos can be green: A study of CEO hubris and environmental innovation. *British Journal of Management, 29*(2), 316–336. https://doi.org/10.1111/1467-8551.12250

Arregle, J. L., Hitt, M. A., Sirmon, D. G., & Very, P. (2007). The development of organizational social capital: Attributes of family firms. *Journal of Management Studies, 44*(1), 73–95. https://doi.org/10.1111/j.1467-6486.2007.00665.x

Asay, H. S., Elliott, W. B., & Rennekamp, K. (2017). Disclosure readability and the sensitivity of investors' valuation judgments to outside information. *The Accounting Review*, *92*(4), 1-25. https://doi.org/10.2308/accr-51570

Balasubramanian, S., Shukla, V., Mangla, S., & Chanchaichujit, J. (2021). Do firm characteristics affect environmental sustainability? A literature review-based assessment. *Business Strategy and the Environment, 30*(2), 1389–1416. https://doi.org/10.1002/bse.2692

Baldini, M., Maso, L. D., Liberatore, G., Mazzi, F., & Terzani, S. (2018). Role of country-and firm-level determinants in environmental, social, and governance disclosure. *Journal of business ethics*, *150*, 79-98. https://doi.org/10.1007/s10551-016-3139-1

Banerjee, S. B., Iyer, E. S., & Kashyap, R. K. (2003). Corporate environmentalism: Antecedents and influence of industry type. *Journal of Marketing, 67*(2), 106–122. https://doi.org/10.1509/jmkg.67.2.106.18604

Bao, Y., & Datta, A. (2014). Simultaneously discovering and quantifying risk types from textual risk disclosures. *Management Science, 60*(6), 1371–1391. https://doi.org/10.1287/mnsc.2014.1930

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Bassyouny, H., Abdelfattah, T., & Tao, L. (2020). Beyond narrative disclosure tone: The upper echelons theory perspective. *International Review of Financial Analysis, 70,* 101499. https://doi.org/10.1016/j.irfa.2020.101499

Benameur, K., Hassanein, A., Azzam, M. E. A., & Elzahar, H. (2023). Future-oriented disclosure and corporate value: the role of an emerging economy corporate governance. *Journal of Applied Accounting Research*, *24*(1), 25-46. https://doi.org/10.1108/JAAR-01-2021-0002

Bhandari, K. R., Ranta, M., & Salo, J. (2022). The resource-based view, stakeholder capitalism, ESG, and sustainable competitive advantage: The firm's embeddedness into ecology, society, and governance. *Business Strategy and the Environment, 31*(4), 1525–1537. https://doi.org/10.1002/bse.2967

Birindelli, G., Iannuzzi, A. P., & Savioli, M. (2019). The impact of women leaders on environmental performance: Evidence on gender diversity in banks. *Corporate Social Responsibility and Environmental Management, 26*(6), 1485–1499. https://doi.org/10.1002/csr.1762

Bochkay, K., Brown, S. V., Leone, A. J., & Tucker, J. W. (2023). Textual analysis in accounting: What's next? *Contemporary Accounting Research, 40*(2), 765–805. https://doi.org/10.1111/1911-3846.12825

Bochkay, K., Chychyla, R., & Nanda, D. (2019). Dynamics of CEO disclosure style. *The Accounting Review, 94*(4), 103–140. https://doi.org/10.2308/accr-52281

Bouaziz, D., Salhi, B., & Jarboui, A. (2020). CEO characteristics and earnings management: Empirical evidence from France. *Journal of Financial Reporting and Accounting, 18,* 77–110. https://doi.org/10.1108/JFRA-01-2019-0008

Boulhaga, M., Bouri, A., Elamer, A. A., & Ibrahim, B. A. (2023). Environmental, social and governance ratings and firm performance: The moderating role of internal control quality. *Corporate Social Responsibility and Environmental Management, 30*(1), 134–145. https://doi.org/10.1002/csr.2343

Boulouta, I. (2013). Hidden connections: The link between board gender diversity and corporate social performance. *Journal of business ethics*, *113*(2), 185-197. https://doi.org/10.1007/s10551-012-1293-7

Brown, A. D. (1997). Narcissism, identity, and legitimacy. *Academy of management Review*, *22*(3), 643-686. https://doi.org/10.5465/amr.1997.9708210722

Campbell, R. J., Jeong, S. H., & Graffin, S. D. (2019). Born to take risk? The effect of CEO birth order on strategic risk taking. *Academy of Management Journal, 62*(4), 1278–1306. https://doi.org/10.5465/amj.2017.0790

Cavallaro, C. M., Pearce, J. M., & Sidortsov, R. (2018). Decarbonizing the boardroom? Aligning electric utility executive compensation with climate change incentives. *Energy Research & Social Science, 37,* 153–162. https://doi.org/10.1016/j.erss.2017.09.036

Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative science quarterly*, *52*(3), 351-386. https://doi.org/10.2189/asqu.52.3.351

Chan, K. C., Chen, T., Liu, B., & Wu, J. (2022). Air pollution and CEO compensation: Evidence from China. *Journal of Economics and Management Strategy, 31*(2), 448–469.

Chang, Y. C., Huang, M., Su, Y. S., & Tseng, K. (2021). Short-termist CEO compensation in speculative markets: A controlled experiment. *Contemporary Accounting Research, 38*(3), 2105–2156. https://doi.org/10.1111/1911-3846.12676

Chen, X., Cheng, Q., & Dai, Z. (2013). Family ownership and CEO turnovers. *Contemporary Accounting Research, 30*(3), 1166–1190.

Chen, Y. C., Hung, M., & Wang, L. L. (2023). Do depositors respond to banks' social performance? *The Accounting Review, 98*(4), 89–114.

Chithambo, L., Tingbani, I., Agyapong, G. A., Gyapong, E., & Damoah, I. S. (2020). Corporate voluntary greenhouse gas reporting: Stakeholder pressure and the mediating role of the chief executive officer. *Business Strategy and the Environment, 29*(4), 1666–1683. https://doi.org/10.1002/bse.2460

Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and sustainability reporting: Economic analysis and literature review. *Review of Accounting Studies, 26*(3), 1176–1248. https://doi.org/10.1007/s11142-021-09609-5

Cohen, S., Kadach, I., Ormazabal, G., & Reichelstein, S. (2023). Executive compensation tied to ESG performance: International evidence. *Journal of Accounting Research, 61*(3), 805–853.

Cragun, O. R., Olsen, K. J., & Wright, P. M. (2020). Making CEO narcissism research great: A review and meta-analysis of CEO narcissism. *Journal of Management*, *46*(6), 908-936.

Craig, R., & Amernic, J. (2011). Detecting linguistic traces of destructive narcissism at-a-distance in a CEO's letter to shareholders. *Journal of Business Ethics*, *101*, 563-575. https://doi.org/10.1177/0149206319892678

Crossley, R. M., Elmagrhi, M. H., & Ntim, C. G. (2021). Sustainability and legitimacy theory: The case of sustainable social and environmental practices of small and medium-sized enterprises. *Business Strategy and the Environment, 30*(8), 3740–3762. https://doi.org/10.1002/bse.2837

Cucari, N., Esposito De Falco, S., & Orlando, B. (2018). Diversity of board of directors and environmental social governance: Evidence from Italian listed companies. *Corporate social responsibility and environmental management*, *25*(3), 250-266. https://doi.org/10.1002/csr.1452

Cumming, D., Leung, T. Y., & Rui, O. (2015). Gender diversity and securities fraud. *Academy of management Journal*, *58*(5), 1572-1593. https://doi.org/10.5465/amj.2013.0750

Dabbebi, A., Lassoued, N., & Khanchel, I. (2022). Peering through the smokescreen: ESG disclosure and CEO personality. *Managerial and Decision Economics, 43,* 3147–3164. https://doi.org/10.1002/mde.3587

Davis, A. K., Ge, W., Matsumoto, D., & Zhang, J. L. (2015). The effect of manager-specific optimism on the tone of earnings conference calls. *Review of Accounting Studies, 20,* 639–673. https://doi.org/10.1007/s11142-014-9309-4

DeBoskey, D. G., Luo, Y., & Zhou, L. (2019). CEO power, board oversight, and earnings announcement tone. *Review of Quantitative Finance and Accounting, 52,* 657–680. https://doi.org/10.1007/s11156-018-0721-x

Deng, X., & Gao, H. (2013). Nonmonetary benefits, quality of life, and executive compensation. *Journal of Financial and Quantitative Analysis, 48*(1), 197–218. https://doi.org/10.1017/S0022109013000033

Dikolli, S. S., Diser, V., Hofmann, C., & Pfeiffer, T. (2018). CEO power and relative performance evaluation. *Contemporary Accounting Research, 35*(3), 1279–1296. https://doi.org/10.1111/1911-3846.12316

Dowling, J., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific sociological review*, *18*(1), 122-136. https://doi.org/10.2307/1388226

Du, S., & Yu, K. (2021). Do corporate social responsibility reports convey value relevant information? Evidence from report readability and tone. *Journal of business ethics*, *172*, 253-274. https://doi.org/10.1007/s10551-020-04496-3

Duchon, D., & Burns, M. (2008). Organizational narcissism. Organizational Dynamics, 37(4), 354–364. https://doi:10.1016/j.orgdyn.2008.07.004

Duchon, D., & Drake, B. (2009). Organizational narcissism and virtuous behavior. *Journal of business ethics*, *85*, 301-308. https://doi.org/10.1007/s10551-008-9771-7
Eliwa, Y., Aboud, A., & Saleh, A. (2021). ESG practices and the cost of debt: Evidence from EU countries. *Critical Perspectives on Accounting, 79,* 102097. https://doi.org/10.1016/j.cpa.2019.102097
Eliwa, Y., Aboud, A., & Saleh, A. (2023). Board gender diversity and ESG decoupling: Does religiosity matter? *Business Strategy and the Environment, 32,* 4046–4067. https://doi.org/10.1002/bse.3353
Elmagrhi, M. H., Ntim, C. G., Elamer, A. A., & Zhang, Q. (2019). A study of environmental policies and regulations, governance structures, and environmental performance: The role of female directors. *Business Strategy and the Environment, 28*(1), 206–220. https://doi.org/10.1002/bse.2250
Elsayih, J., Datt, R., & Hamid, A. (2020). CEO characteristics: Do they matter for carbon performance? An empirical investigation of Australian firms. *Social Responsibility Journal, 17*(8), 1279–1298.
Emett, S. A. (2019). Investor reaction to disclosure of past performance and future plans. *The Accounting Review*, *94*(5), 165-188. https://doi.org/10.2308/accr-52343
Ernawan, K., & Daniel, D. R. (2019). The influence of CEO narcissism on corporate social responsibility disclosure. *Jurnal Akuntansi, 23*(2), 253–268. https://doi.org/10.24912/ja.v23i2.587
Ezzi, F., Salhi, B., & Jarboui, A. (2023). Exploring the relationship between managerial emotional intelligence and environmental performance in the energy sector: A mediated moderation analysis. *International Journal of Energy Sector Management, 17*(1), 1–24.
Fabrizi, M., Mallin, C., & Michelon, G. (2014). The role of CEO's personal incentives in driving corporate social responsibility. *Journal of Business Ethics, 124,* 311–326. https://doi.org/10.1007/s10551-013-1864-2
Fan, Y., Zhang, F., & Zhu, L. (2021). Do family firms invest more in pollution prevention strategy than non-family firms? An integration of agency and institutional theories. *Journal of Cleaner Production, 286,* 124988. https://doi.org/10.1016/j.jclepro.2020.124988
Farag, H., & Mallin, C. (2018). The influence of CEO demographic characteristics on corporate risk-taking: Evidence from Chinese IPOs. *The European Journal of Finance, 24*(16), 1528–1551. https://doi.org/10.1080/1351847X.2016.1151454
Fatima, T., & Elbanna, S. (2023). Corporate social responsibility (CSR) implementation: A review and a research agenda towards an integrative framework. *Journal of Business Ethics, 183,* 1–17.
Francoeur, C., Melis, A., Gaia, S., & Aresu, S. (2017). Green or greed? An alternative look at CEO compensation and corporate environmental commitment. *Journal of Business Ethics, 140*(3), 439–453. https://doi.org/10.1007/s10551-015-2674-5
Francis, B. B., Hasan, I., Wu, Q., & Yan, M. (2014). Are female CFOs less tax aggressive? Evidence from tax aggressiveness. *The Journal of the American Taxation Association*, *36*(2), 171-202. https://doi.org/10.2308/atax-50819
Friend, S. B., Johnson, J. S., Luthans, F., & Sohi, R. S. (2016). Positive psychology in sales: Integrating psychological capital. *Journal of Marketing Theory and Practice, 24*(3), 306–327. https://doi.org/10.1080/10696679.2016.1170525
Gabler, C. B., Itani, O. S., & Agnihotri, R. (2023). Activating corporate environmental ethics on the frontline: A natural resource-based view. *Journal of Business Ethics, 186*(1), 63–86. https://doi.org/10.1007/s10551-022-05201-2
Gallego-Álvarez, I., & Pucheta-Martínez, M. C. (2020). How cultural dimensions, legal systems, and industry affect environmental reporting? Empirical evidence from an international perspective. *Business Strategy and the Environment, 29*(5), 2037–2057.
Garel, A., & Petit-Romec, A. (2022). CEO exposure to abnormally hot temperature and corporate carbon emissions. *Economics Letters, 210,* 110156. https://doi.org/10.1016/j.econlet.2021.110156
Gaur, A., & Kumar, M. (2018). A systematic approach to conducting review studies: An assessment of content analysis in 25 years of IB research. *Journal of World Business, 53*(2), 280–289. https://doi.org/10.1016/j.jwb.2017.11.003
Gavana, G., Gottardo, P., & Moisello, A. M. (2016). Sustainability reporting in family firms: A panel data analysis. *Sustainability, 9*(1), 38. https://doi.org/10.3390/su9010038
Giannarakis, G. (2014). Corporate governance and financial characteristic effects on the extent of corporate social responsibility disclosure. *Social Responsibility Journal*, *10*(4), 569-590. https://doi.org/10.1108/SRJ-02-2013-0008
Giannarakis, G., Konteos, G., & Sariannidis, N. (2014). Financial, governance and environmental determinants of corporate social responsible disclosure. *Management Decision, 52*(10), 1928–1951.
Giannarakis, G., Zafeiriou, E., & Sariannidis, N. (2017). The impact of carbon performance on climate change disclosure. *Business Strategy and the Environment*, *26*(8), 1078-1094. https://doi.org/10.1002/bse.1962
Giannarakis, G., Mallidis, I., Sariannidis, N., & Konteos, G. (2022). The impact of corporate governance attributes on environmental and social performance: The case of European region excluding companies from the Eurozone. *Business Strategy and the Environment, 32*(6), 3489–3512. https://doi.org/10.1002/bse.3312

Gómez-Bezares, F., Przychodzen, W., & Przychodzen, J. (2019). Corporate sustainability and CEO–employee pay gap—Buster or booster? *Sustainability, 11*(21), 6023. https://doi.org/10.3390/su11216023

Goud, N. N. (2022). Corporate governance: Does it matter management of carbon emission performance? An empirical analyses of Indian companies. *Journal of Cleaner Production, 379,* 134485. https://doi.org/10.1016/j.jclepro.2022.134485

Graham, M. E., Belliveau, M. A., & Hotchkiss, J. L. (2017). The view at the top or signing at the bottom? Workplace diversity responsibility and women's representation in management. *ILR Review*, *70*(1), 223-258. https://doi.org/10.1177/0019793916668879

Grözinger, A. C., Wolff, S., Ruf, P. J., & Moog, P. (2022). The power of shared positivity: Organizational psychological capital and firm performance during exogenous crises. *Small Business Economics, 58*(2), 689–716. https://doi.org/10.1007/s11187-021-00506-4

Gupta, A., & Briscoe, F. (2020). Organizational political ideology and corporate openness to social activism. *Administrative Science Quarterly, 65*(2), 524–563. https://doi.org/10.1177/0001839219852954

Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review, 32*(2), 334–343. https://doi.org/10.5465/amr.2007.24345254

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review, 9*(2), 193–206. https://doi.org/10.2307/258434

Hamidah, H., & Arisukma, A. (2020). The influence of corporate governance on sustainability report management: The moderating role of audit committee. *Polish Journal of Management Studies, 21*(1), 146–157. https://doi.org/10.17512/pjms.2020.21.1.11

Haque, F. (2017). The effects of board characteristics and sustainable compensation policy on carbon performance of UK firms. *The British Accounting Review, 49*(3), 347–364. https://doi.org/10.1016/j.bar.2017.01.001

Haque, F., & Ntim, C. G. (2022). Do corporate sustainability initiatives improve corporate carbon performance? Evidence from European firms. *Business Strategy and the Environment, 31*(7), 3318–3334. https://doi.org/10.1002/bse.3078

Hassan, A., Elamer, A. A., Fletcher, M., & Sobhan, N. (2020). Voluntary assurance of sustainability reporting: Evidence from an emerging economy. *Accounting Research Journal, 33*(2), 391–410. https://doi.org/10.1108/ARJ-10-2018-0169

Hasan, M. M. (2020). Readability of narrative disclosures in 10-K reports: does managerial ability matter?. *European Accounting Review*, *29*(1), 147-168. https://doi.org/10.1080/09638180.2018.1528169

Hassan, A., Elamer, A. A., Lodh, S., Roberts, L., & Nandy, M. (2021). The future of non-financial businesses reporting: Learning from the Covid-19 pandemic. *Corporate Social Responsibility and Environmental Management, 28*(4), 1231–1240. https://doi.org/10.1002/csr.2145

Hazaea, S. A., Zhu, J., Khatib, S. F. A., Bazhair, A. H., & Elamer, A. A. (2022). Sustainability assurance practices: A systematic review and future research agenda. *Environmental Science and Pollution Research, 29*(4), 4843–4864. https://doi.org/10.1007/s11356-021-17359-9

Hmieleski, K. M., Carr, J. C., & Baron, R. A. (2015). Integrating discovery and creation perspectives of entrepreneurial action: The relative roles of founding CEO human capital, social capital, and psychological capital in contexts of risk versus uncertainty. *Strategic Entrepreneurship Journal, 9*(4), 289–312. https://doi.org/10.1002/sej.1208

Hossain, A., Masum, A. A., Saadi, S., Benkraiem, R., & Das, N. (2022). Firm-level climate change risk and CEO equity incentives. *British Journal of Management, 34*(3), 1387–1419.

Hrazdil, K., Mahmoudian, F., & Nazari, J. A. (2021). Executive personality and sustainability: Do extraverted chief executive officers improve corporate social responsibility? *Corporate Social Responsibility and Environmental Management, 28*(6), 1564–1578. https://doi.org/10.1002/csr.2116

Huang, M., Li, M., & Liao, Z. (2021). Do politically connected CEOs promote Chinese listed industrial firms' green innovation? The mediating role of external governance environments. *Journal of Cleaner Production, 278,* 123634. https://doi.org/10.1016/j.jclepro.2020.123634

Huang, S. K. (2013). The impact of CEO characteristics on corporate sustainable development. *Corporate Social Responsibility and Environmental Management, 20*(4), 234–244. https://doi.org/10.1002/csr.1295

Huse, M., & Grethe Solberg, A. (2006). Gender-related boardroom dynamics: How Scandinavian women make and can make contributions on corporate boards. *Women in management review*, *21*(2), 113-130. https://doi.org/10.1108/09649420610650693

Hussainey, K., & Al-Najjar, B. (2011). Future-oriented narrative reporting: determinants and use. *Journal of Applied Accounting Research*, *12*(2), 123-138. https://doi.org/10.1108/09675421111160691

Husted, B. W., & de Sousa-Filho, J. M. (2019). Board structure and environmental, social, and governance disclosure in Latin America. *Journal of Business Research, 102,* 220–227. https://doi.org/10.1016/j.jbusres.2018.01.017

Ignatov, K. (2023). When ESG talks: ESG tone of 10-K reports and its significance to stock markets. *International Review of Financial Analysis, 89,* 102745. https://doi.org/10.1016/j.irfa.2023.102745

Iguchi, H., Katayama, H., & Yamanoi, J. (2022). CEOs' religiosity and corporate green initiatives. *Small Business Economics, 58*(1), 497–522. https://doi.org/10.1007/s11187-020-00427-8

Iivonen, K., & Moisander, J. (2015). Rhetorical construction of narcissistic CSR orientation. *Journal of Business Ethics*, *131*, 649-664. https://doi.org/10.1007/s10551-014-2298-1

Ingersoll, A. R., Glass, C., Cook, A., & Olsen, K. J. (2019). Power, status and expectations: How narcissism manifests among women CEOs. *Journal of Business Ethics*, *158*, 893-907. https://doi.org/10.1007/s10551-017-3730-0

Jain, T., & Zaman, R. (2020). When boards matter: The case of corporate social irresponsibility. *British Journal of Management, 31*(2), 365–386. https://doi.org/10.1111/1467-8551.12376

Javeed, S. A., Latief, R., Jiang, T., San Ong, T., & Tang, Y. (2021). How environmental regulations and corporate social responsibility affect the firm innovation with the moderating role of chief executive officer (CEO) power and ownership concentration? *Journal of Cleaner Production, 308,* 127212. https://doi.org/10.1016/j.jclepro.2021.127212

Jia, Y., Tsui, A. S., & Yu, X. (2021). Beyond bounded rationality: CEO reflective capacity and firm sustainability performance. *Management and Organization Review, 17*(4), 777–814. https://doi.org/10.1017/mor.2021.4

Jiraporn, P., & Chintrakarn, P. (2013). How do powerful CEOs view corporate social responsibility (CSR)? An empirical note. *Economics Letters, 119*(3), 344–347. https://doi.org/10.1016/j.econlet.2013.03.026

Jiraporn, P., Chintrakarn, P., & Liu, Y. (2012). Capital structure, CEO dominance, and corporate performance. *Journal of Financial Services Research, 42,* 139–158. https://doi.org/10.1007/s10693-011-0109-8

Jin, C., Monfort, A., Chen, F., Xia, N., & Wu, B. (2024). Institutional investor ESG activism and corporate green innovation against climate change: Exploring differences between digital and non-digital firms. *Technological Forecasting and Social Change*, *200*, 123129. https://doi.org/10.1016/j.techfore.2023.123129

Jouber, H. (2019). How does CEO pay slice influence corporate social responsibility? U.S.–Canadian versus Spanish–French listed firms. *Corporate Social Responsibility and Environmental Management, 26*(2), 502–517. https://doi.org/10.1002/csr.1728

Khalid, F., Ye, Z., Voinea, C. L., Naveed, K., & Akram, R. (2022). Carbon Disclosure Project: Chinese chief executive officer background and corporate voluntary climate change reporting. *Carbon Management, 13,* 321–336. https://doi.org/10.1080/17583004.2022.2083983

Khan, M. K., Zahid, R. A., Saleem, A., & Sági, J. (2021). Board composition and social & environmental accountability: A dynamic model analysis of Chinese firms. *Sustainability, 13*(19), 10662. https://doi.org/10.3390/su131910662

Khatib, S. F. A., Abdullah, D. F., Elamer, A. A., & Abueid, R. (2021). Nudging toward diversity in the boardroom: A systematic literature review of board diversity of financial institutions. *Business Strategy and the Environment, 30*(2), 985–1002. https://doi.org/10.1002/bse.2665

Kilincarslan, E., Elmagrhi, M. H., & Li, Z. (2020). Impact of governance structures on environmental disclosures in the Middle East and Africa. *Corporate Governance: The International Journal of Business in Society, 20*(4), 739–763. https://doi.org/10.1108/CG-08-2019-0250

Kim, B., Lee, S., & Kang, K. H. (2018). The moderating role of CEO narcissism on the relationship between uncertainty avoidance and CSR. *Tourism Management*, *67*, 203-213. https://doi.org/10.1016/j.tourman.2018.01.018

Kim, Y. H. A., Park, J., & Shin, H. (2022). CEO facial masculinity, fraud, and ESG: Evidence from South Korea. *Emerging Markets Review, 53,* 100917. https://doi.org/10.1016/j.ememar.2022.100917

Kind, F. L., Zeppenfeld, J., & Lueg, R. (2023). The impact of chief executive officer narcissism on environmental, social, and governance reporting. *Business Strategy and the Environment*, *32*(7), 4448-4466. https://doi.org/10.1002/bse.3375

Klarner, P., Yu, Q., Yoshikawa, T., & Hitt, M. A. (2022). Board governance of strategic change: An assessment of the literature and avenues for future research. *International Journal of Management Reviews, 25*(3), 467–494.

Kouaib, A., Mhiri, S., & Jarboui, A. (2020). Board of directors' effectiveness and sustainable performance: The triple bottom line. *The Journal of High Technology Management Research, 31*(2), 100390. https://doi.org/10.1016/j.hitech.2020.100390

Kumari, P. R., Makhija, H., Sharma, D., & Behl, A. (2022). Board characteristics and environmental disclosures: Evidence from sensitive and non-sensitive industries of India. *International Journal of Managerial Finance, 18,* 677–700. https://doi.org/10.1108/IJMF-10-2021-0547

Lagasio, V., & Cucari, N. (2019). Corporate governance and environmental social governance disclosure: A meta-analytical review. *Corporate Social Responsibility and Environmental Management, 26*(4), 701–711. https://doi.org/10.1002/csr.1716

Landrum, N. E. (2018). Stages of corporate sustainability: Integrating the strong sustainability worldview. *Organization & Environment, 31*(4), 287–313. https://doi.org/10.1177/1086026617717456

Lee, J. (2021). CEO overconfidence and voluntary disclosure of greenhouse gas emissions: With a focus on the role of corporate governance. *Sustainability, 13*(11), 6054. https://doi.org/10.3390/su13116054

Lee, J., & Kim, E. (2021). Would overconfident CEOs engage more in environment, social, and governance investments? With a focus on female representation on boards. *Sustainability, 13*(6), 3373. https://doi.org/10.3390/su13063373

Lee, M. T., Raschke, R. L., & Krishen, A. S. (2023). Understanding ESG scores and firm performance: Are high-performing firms E, S, and G-balanced? *Technological Forecasting and Social Change*, *195*, 122779. https://doi.org/10.1016/j.techfore.2023.122779

Lenard, M. J., Yu, B., York, E. A., & Wu, S. (2017). Female business leaders and the incidence of fraud litigation. *Managerial Finance*, *43*(1), 59-75. https://doi.org/10.1108/MF-04-2016-0123

Lewis, B. W., Walls, J. L., & Dowell, G. W. (2014). Difference in degrees: CEO characteristics and firm environmental disclosure. *Strategic Management Journal, 35*(5), 712–722. https://doi.org/10.1002/smj.2127

Li, F., Li, T., & Minor, D. (2016). CEO power, corporate social responsibility, and firm value: A test of agency theory. *International Journal of Managerial Finance, 12*(5), 611–628. https://doi.org/10.1108/IJMF-05-2015-0116

Li, Y., Gong, M., Zhang, X. Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *The British Accounting Review, 50*(1), 60–75. https://doi.org/10.1016/j.bar.2017.09.007

Liao, L., Luo, L., & Tang, Q. (2015). Gender diversity, board independence, environmental committee and greenhouse gas disclosure. *The British accounting review*, *47*(4), 409-424. https://doi.org/10.1016/j.bar.2014.01.002

Liao, C. H., San, Z., Tsang, A., & Yu, L. (2021). Board reforms around the world: The effect on corporate social responsibility. *Corporate Governance: An International Review, 29*(5), 496–523. https://doi.org/10.1111/corg.12372

Liao, Z., & Long, S. (2018). CEOs' regulatory focus, slack resources, and firms' environmental innovation. *Corporate Social Responsibility and Environmental Management, 25*(5), 981–990. https://doi.org/10.1002/csr.1514

Lin, F., Lin, S. W., & Fang, W. C. (2022). Impact of CEO narcissism and hubris on corporate sustainability and firm performance. *The North American Journal of Economics and Finance, 59,* 101586. https://doi.org/10.1016/j.najef.2021.101586

Lin, H., Chen, L., Yuan, M., Yu, M., Mao, Y., & Tao, F. (2021). The eco-friendly side of narcissism: The case of green marketing. *Sustainable Development, 29*(6), 1111–1122. https://doi.org/10.1002/sd.2206

Liu, P., & Nguyen, H. T. (2020). CEO characteristics and tone at the top inconsistency. *Journal of Economics and Business, 108,* 105887. https://doi.org/10.1016/j.jeconbus.2019.105887

Lopatta, K., Kaspereit, T., Tideman, S. A., & Rudolf, A. R. (2022). The moderating role of CEO sustainability reporting style in the relationship between sustainability performance, sustainability reporting, and cost of equity. *Journal of Business Economics, 92*(3), 429–465. https://doi.org/10.1007/s11573-022-01082-z

Loughran, T., & McDonald, B. (2011). When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks. *The Journal of finance*, *66*(1), 35-65. https://doi.org/10.1111/j.1540-6261.2010.01625.x

Loughran, T., & McDonald, B. (2016). Textual analysis in accounting and finance: A survey. *Journal of Accounting Research, 54*(4), 1187–1230.

Lu, Y., Cahan, S., & Ma, D. (2019). Is CSR performance related to disclosure tone in earnings announcements?. *Accounting Research Journal*, *32*(2), 129-147. https://doi.org/10.1108/ARJ-05-2016-0059

Lu, J., & Wang, J. (2021). Corporate governance, law, culture, environmental performance, and CSR disclosure: A global perspective. *Journal of International Financial Markets Institutions and Money, 70,* 101264. https://doi.org/10.1016/j.intfin.2020.101264

Lu, Y., Ntim, C. G., Zhang, Q., & Li, P. (2022). Board of directors' attributes and corporate outcomes: A systematic literature review and future research agenda. *International Review of Financial Analysis, 84,* 102424. https://doi.org/10.1016/j.irfa.2022.102424

Luo, L., & Tang, Q. (2021). Corporate governance and carbon performance: Role of carbon strategy and awareness of climate risk. *Accounting and Finance, 61*(2), 2891–2934. https://doi.org/10.1111/acfi.12687

Luo, L., Wu, H., & Zhang, C. (2021). CEO compensation, incentive alignment, and carbon transparency. *Journal of International Accounting Research, 20*(2), 111–132. https://doi.org/10.2308/JIAR-2020-032

Luo, Y. (2015). CEO power, ownership structure, and pay performance in Chinese banking. *Journal of Economics and Business, 82,* 3–16. https://doi.org/10.1016/j.jeconbus.2015.04.003

Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics, 33*(2), 143–160. https://doi.org/10.1016/j.orgdyn.2004.01.003

Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology, 60*(3), 541–572. https://doi.org/10.1111/j.1744-6570.2007.00083.x

Mahran, K., & Elamer, A. A. (2024a). Chief executive officer (CEO) and corporate environmental sustainability: A systematic literature review and avenues for future research. *Business Strategy and the Environment, 33*(3), 1977–2003. https://doi.org/10.1002/bse.3577

Mahran, K., & Elamer, A. A. (2024b), Shaping ESG commitment through organizational psychological capital: The role of CEO power. *Business Strategy and the Environment*, *34*(1), 690–707. https://doi.org/10.1002/bse.4007706

Mansouri, S., & Momtaz, P. P. (2022). Financing sustainable entrepreneurship: ESG measurement, valuation, and performance. *Journal of Business Venturing, 37*(6), 106258. https://doi.org/10.1016/j.jbusvent.2022.106258

Martínez-García, I., Terjesen, S., & Gómez-Ansón, S. (2022). Board gender diversity codes, quotas, and threats of supranational legislation: Impact on director characteristics and corporate outcomes. *British Journal of Management, 33*(2), 753–783.

Marquez-Illescas, G., Zebedee, A. A., & Zhou, L. (2019). Hear me write: does CEO narcissism affect disclosure?. *Journal of business ethics*, *159*, 401-417. https://doi.org/10.1007/s10551-018-3796-3

McBrayer, G. A. (2018). Does persistence explain ESG disclosure decisions? *Corporate Social Responsibility and Environmental Management, 25*(6), 1074–1086. https://doi.org/10.1002/csr.1521

McKenny, A. F., Short, J. C., & Payne, G. T. (2013). Using computer-aided text analysis to elevate constructs: An illustration using psychological capital. *Organizational Research Methods, 16*(1), 152–184. https://doi.org/10.1177/1094428112459910

McLaughlin, C., Elamer, A. A., Glen, T., AlHares, A., & Gaber, H. R. (2019). Accounting society's acceptability of carbon taxes: Expectations and reality. *Energy Policy, 131,* 302–311. https://doi.org/10.1016/j.enpol.2019.05.008

Memili, E., Patel, P. C., Koç, B., & Yazıcıoğlu, I. (2020). The interplay between socioemotional wealth and family firm psychological capital in influencing firm performance in hospitality and tourism. *Tourism Management Perspectives, 34,* 100651. https://doi.org/10.1016/j.tmp.2020.100651

Memili, E., Welsh, D. H., & Kaciak, E. (2014). Organizational psychological capital of family franchise firms through the lens of the leader–member exchange theory. *Journal of Leadership & Organizational Studies, 21*(2), 200–209. https://doi.org/10.1177/1548051813515513

Merkley, K. J. (2014). Narrative disclosure and earnings performance: Evidence from R&D disclosures. *The Accounting Review*, *89*(2), 725-757. https://doi.org/10.2308/accr-50649

Moussa, T., Allam, A., & Elmarzouky, M. (2023). An examination of UK companies' modern slavery disclosure practices: Does board gender diversity matter? *Business Strategy and the Environment, 32*(8), 5382–5402. https://doi.org/10.1002/bse.3426

Moussa, T., Allam, A., Elbanna, S., & Bani-Mustafa, A. (2020). Can board environmental orientation improve US firms' carbon performance? The mediating role of carbon strategy. *Business Strategy and the Environment, 29*(1), 72–86. https://doi.org/10.1002/bse.2351

Muttakin, M. B., Khan, A., & Mihret, D. G. (2018). The effect of board capital and CEO power on corporate social responsibility disclosures. *Journal of Business Ethics, 150,* 41–56. https://doi.org/10.1007/s10551-016-3105-y

Nadeem, M. (2022). Board gender diversity and managerial obfuscation: Evidence from the readability of narrative disclosure in 10-K reports. *Journal of Business Ethics*, *179*(1), 153-177. https://doi.org/10.1007/s10551-021-04830-3

Newman, A., Ucbasaran, D., Zhu, F. E. I., & Hirst, G. (2014). Psychological capital: A review and synthesis. *Journal of Organizational Behavior, 35*(S1), S120–S138. https://doi.org/10.1002/job.1916

Nguyen, T. H. H., Ntim, C. G., & Malagila, J. K. (2020). Women on corporate boards and corporate financial and non-financial performance: A systematic literature review and future research agenda. *International Review of Financial Analysis, 71,* 101554. https://doi.org/10.1016/j.irfa.2020.101554

Nienhaus, M. (2022). Executive equity incentives and opportunistic manager behavior: New evidence from a quasi-natural experiment. *Review of Accounting Studies, 27*(4), 1276–1318. https://doi.org/10.1007/s11142-021-09633-5

Nirino, N., Santoro, G., Miglietta, N., & Quaglia, R. (2021). Corporate controversies and company's financial performance: Exploring the moderating role of ESG practices. *Technological Forecasting and Social Change*, *162*, 120341. https://doi.org/10.1016/j.techfore.2020.120341

Nuskiya, M. N. F., Ekanayake, A., Beddewela, E., & Gerged, A. M. (2021). Determinants of corporate environmental disclosures in Sri Lanka: The role of corporate governance. *Journal of Accounting in Emerging Economies, 11,* 367–394. https://doi.org/10.1108/JAEE-02-2020-0028

Orazalin, N. S., Ntim, C. G., & Malagila, J. K. (2024). Board sustainability committees, climate change initiatives, carbon performance, and market value. *British Journal of Management, 35,* 295–320. https://doi.org/10.1111/1467-8551.12715

Oware, K. M., & Awunyo-Vitor, D. (2021). CEO characteristics and environmental disclosure of listed firms in an emerging economy: Does sustainability reporting format matter? *Business Strategy & Development, 4*(4), 399–410. https://doi.org/10.1002/bsd2.166

Oware, K. M., Iddrisu, A. A., Worae, T., & Ellah Adaletey, J. (2022). Female and environmental disclosure of family and non-family firms. Evidence from India. *Management Research Review, 45*(6), 760–780.

Papagiannakis, G., & Lioukas, S. (2018). Corporate environmental management: Individual-level drivers and the moderating role of charismatic leadership. *European Management Review, 15*(4), 475–489. https://doi.org/10.1111/emre.12134

Park, J. H., Kim, C., Chang, Y. K., Lee, D. H., & Sung, Y. D. (2018). CEO hubris and firm performance: Exploring the moderating roles of CEO power and board vigilance. *Journal of Business Ethics, 147,* 919–933. https://doi.org/10.1007/s10551-015-2997-2

Pasko, O., Zhang, L., Tuzhyk, K., Proskurina, N., & Gryn, V. (2021). Do sustainability reporting conduct and corporate governance attributes relate? Empirical evidence from China. *Problems and Perspectives in Management, 19,* 110–123. https://doi.org/10.21511/ppm.19(4).2021.10

Pathan, S. (2009). Strong boards, CEO power, and bank risk-taking. *Journal of Banking & Finance, 33*(7), 1340–1350. https://doi.org/10.1016/j.jbankfin.2009.02.001

Peng, C., Xue, K., Tian, Y., Zhang, X., Jing, X., & Luo, H. (2022). Organizational emotional capability perspective: Research on the impact of psychological capital on enterprise safety performance. *Frontiers in Psychology, 13,* 854620. https://doi.org/10.3389/fpsyg.2022.854620

Peng, X., & Zhang, R. (2022). Corporate governance, environmental sustainability performance, and normative isomorphic force of national culture. *Environmental Science and Pollution Research, 29*(22), 33443–33473. https://doi.org/10.1007/s11356-022-18603-6

Porcu, L., del Barrio-García, S., Kitchen, P. J., & Tourky, M. (2020). The antecedent role of a collaborative vs. a controlling corporate culture on firm-wide integrated marketing communication and brand performance. *Journal of Business Research, 119,* 435–443. https://doi.org/10.1016/j.jbusres.2019.10.049

Powers, K., Robinson, J. R., & Stomberg, B. (2016). How do CEO incentives affect corporate tax planning and financial reporting of income taxes? *Review of Accounting Studies, 21*(2), 672–710. https://doi.org/10.1007/s11142-016-9350-6

Pucheta-Martínez, M. C., Bel-Oms, I., & Olcina-Sempere, G. (2016). Corporate governance, female directors and quality of financial information. *Business Ethics: A European Review*, *25*(4), 363-385. https://doi.org/10.1111/beer.12123

Quan, X., Ke, Y., Qian, Y., & Zhang, Y. (2021). CEO foreign experience and green innovation: Evidence from China. *Journal of Business Ethics, 182,* 1–23.

Rath, C., Kurniasari, F., & Deo, M. (2020). CEO compensation and firm performance: The role of ESG transparency. *Indonesian Journal of Sustainability Accounting and Management, 4*(2), 278–293. https://doi.org/10.28992/ijsam.v4i2.225

Razali, M. W. M., Roslanie, F. A. B., Brahmana, R. K., & Ali, S. S. S. (2016). Does CEO characteristics play an important role on Malaysian firms' environmental disclosure? *International Journal of Business Research, 16*(2), 27–36. https://doi.org/10.18374/IJBR-16-2.2

Ren, S., Tang, G., & Jackson, S. E. (2020). Effects of green HRM and CEO ethical leadership on organizations' environmental performance. *International Journal of Manpower, 42*(6), 961–983. https://doi.org/10.1108/IJM-09-2019-0414

Ren, S., Wang, Y., Hu, Y., & Yan, J. (2021). CEO hometown identity and firm green innovation. *Business Strategy and the Environment, 30*(2), 756–774. https://doi.org/10.1002/bse.2652

Rezaee, Z., Alipour, M., Faraji, O., Ghanbari, M., & Jamshidinavid, B. (2020). Environmental disclosure quality and risk: The moderating effect of corporate governance. *Sustainability Accounting, Management and Policy Journal, 12*(4), 733–766. https://doi.org/10.1108/SAMPJ-10-2018-0269

Rixom, J. M., Jackson, M., & Rixom, B. A. (2023). Mandating diversity on the board of directors: Do investors feel that gender quotas result in tokenism or added value for firms? *Journal of Business Ethics, 182*(3), 679–697. https://doi.org/10.1007/s10551-021-05030-9

Roberts, L., Hassan, A., Elamer, A. A., & Nandy, M. (2021). Biodiversity and extinction accounting for sustainable development: A systematic literature review and future research directions. *Business Strategy and the Environment, 30*(1), 705–720. https://doi.org/10.1002/bse.2649

Roberts, L., Nandy, M., Hassan, A., Lodh, S., & Elamer, A. A. (2021). Corporate accountability towards species extinction protection: Insights from ecologically forward-thinking companies. *Journal of Business Ethics, 178*(3), 571–595. https://doi.org/10.1007/s10551-021-04800-9

Romano, M., Cirillo, A., Favino, C., & Netti, A. (2020). ESG (environmental, social and governance) performance and board gender diversity: The moderating role of CEO duality. *Sustainability, 12*(21), 9298. https://doi.org/10.3390/su12219298

Rosati, F., Rodrigues, V. P., Cosenz, F., & Li-Ying, J. (2022). Business model innovation for the Sustainable Development Goals. *Business Strategy and the Environment, 32*(6), 3752–3765. https://doi.org/10.1002/bse.3334

Saiyed, A. A., Tatoglu, E., Ali, S., & Dutta, D. K. (2023). Entrepreneurial orientation, CEO power, and firm performance: An upper echelons theory perspective. *Management Decision, 61*(6), 1773–1797. https://doi.org/10.1108/MD-05-2022-0641

Sajko, M., Boone, C., & Buyl, T. (2021). CEO greed, corporate social responsibility, and organizational resilience to systemic shocks. *Journal of Management, 47*(4), 957–992. https://doi.org/10.1177/0149206320902528

Saleh, M. W., Shurafa, R., Shukeri, S. N., Nour, A. I., & Maigosh, Z. S. (2020). The effect of board multiple directorships and CEO characteristics on firm performance: Evidence from Palestine. *Journal of Accounting in Emerging Economies, 10,* 637–654. https://doi.org/10.1108/JAEE-12-2019-0231

Sariol, A. M., & Abebe, M. A. (2017). The influence of CEO power on explorative and exploitative organizational innovation. *Journal of Business Research, 73,* 38–45. https://doi.org/10.1016/j.jbusres.2016.11.016

Saputra, I., & Murwaningsari, E. (2021). Do Environmental Performance and Disclosure Contribute to the Economic Performance? The Moderating Role of Corporate Action. *Journal of Accounting Research, Organization and Economics*, *4*(1), 29-47. https://doi.org/10.24815/jaroe.v4i1.18672

Schmidt, C. V. H., & Flatten, T. C. (2022). Crossover of resources within formal ties: How job seekers acquire psychological capital from employment counselors. *Journal of Organizational Behavior, 43*(4), 604–619.

Seebeck, A., & Vetter, J. (2021). Not just a gender numbers game: How board gender diversity affects corporate risk disclosure. *Journal of Business Ethics*, 1-26. https://doi.org/10.1007/s10551-020-04690-3

Shah, S. G. M., Sarfraz, M., & Ivascu, L. (2021). Assessing the interrelationship corporate environmental responsibility, innovative strategies, cognitive and hierarchical CEO: A stakeholder theory perspective. *Corporate Social Responsibility and Environmental Management, 28*(1), 457–473. https://doi.org/10.1002/csr.2061

Shahab, Y., Gull, A. A., Rind, A. A., Sarang, A. A. A., & Ahsan, T. (2022). Do corporate governance mechanisms curb the anti-environmental behavior of firms worldwide? An illustration through waste management. *Journal of Environmental Management, 310,* 114707. https://doi.org/10.1016/j.jenvman.2022.114707

Shahab, Y., Ntim, C. G., Chen, Y., Ullah, F., Li, H. X., & Ye, Z. (2020). Chief executive officer attributes, sustainable performance, environmental performance, and environmental reporting: New insights from upper echelons perspective. *Business Strategy and the Environment, 29*(1), 1–16. https://doi.org/10.1002/bse.2345

Shan, Y. G. (2019). Do corporate governance and disclosure tone drive voluntary disclosure of related-party transactions in China?. *Journal of International Accounting, Auditing and Taxation*, *34*, 30-48. https://doi.org/10.1016/j.intaccaudtax.2019.02.002

Sheikh, S. (2019). An examination of the dimensions of CEO power and corporate social responsibility. *Review of Accounting and Finance, 18*(2), 221–244. https://doi.org/10.1108/RAF-01-2018-0034

Smith, C., & Ulus, E. (2020). Who cares for academics? We need to talk about emotional well-being including what we avoid and intellectualize through macro-discourses. *Organization, 27*(6), 840–857. https://doi.org/10.1177/1350508419867201

Stanwick, P. A., & Stanwick, S. D. (2001). CEO compensation: Does it pay to be green? *Business Strategy and the Environment, 10*(3), 176–182. https://doi.org/10.1002/bse.284

Stein, M. (2003). Unbounded irrationality: Risk and organizational narcissism at long term capital management. *Human Relations*, *56*(5), 523-540. https://doi.org/10.1177/0018726703056005001

Stock, J., & Yogo, M. (2005). Asymptotic distributions of instrumental variables statistics with many instruments. *Identification and inference for econometric models: Essays in honor of Thomas Rothenberg, 6,* 109–120.

Sumarta, N. H., Prabowo, M. A., Amidjaya, P. G., Supriyono, E., & Prameswari, A. P. (2021). CEO characteristics and environmental performance: Evidence from Indonesian banks. *International Journal of Business and Society, 22*(2), 1015–1033. https://doi.org/10.33736/ijbs.3779.2021

Sun, D., Zeng, S., Lin, H., Yu, M., & Wang, L. (2021). Is green the virtue of humility? The influence of humble CEOs on corporate green innovation in China. *IEEE Transactions on Engineering Management, 70*(12), 4222–4232.

Suttipun, M. (2021). The influence of board composition on environmental, social and governance (ESG) disclosure of Thai listed companies. *International Journal of Disclosure and Governance, 18*(4), 391–402. https://doi.org/10.1057/s41310-021-00120-6
Tingbani, I., Chithambo, L., Tauringana, V., & Papanikolaou, N. (2020). Board gender diversity, environmental committee, and greenhouse gas voluntary disclosures. *Business Strategy and the Environment, 29*(6), 2194–2210. https://doi.org/10.1002/bse.2495
Tran, N., & Pham, B. J. M. S. L. (2020). The influence of CEO characteristics on corporate environmental performance of SMEs: Evidence from Vietnamese SMEs. *Management Science Letters, 10*(8), 1671–1682. https://doi.org/10.5267/j.msl.2020.1.013
Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management, 14*(3), 207–222. https://doi.org/10.1111/1467-8551.00375
Ullah, F., Jiang, P., Elamer, A. A., & Owusu, A. (2022). Environmental performance and corporate innovation in China: The moderating impact of firm ownership. *Technological Forecasting and Social Change, 184,* 121990.
Ullah, F., Jiang, P., Mu, W., & Elamer, A. A. (2023). Rookie directors and corporate innovation: Evidence from Chinese listed firms. *Applied Economics Letters,* 1–4. Forthcoming. https://doi.org/10.1080/13504851.2023.2209308
Ullah, S., Khan, F. U., Cismas, L. M., Usman, M., & Miculescu, A. (2022). Do tournament incentives matter for CEOs to be environmentally responsible? Evidence from Chinese listed companies. *International Journal of Environmental Research and Public Health, 19*(1), 470. https://doi.org/10.3390/ijerph19010470
Van Zanten, J. A., & van Tulder, R. (2021). Improving companies' impacts on sustainable development: A nexus approach to the SDGs. *Business Strategy and the Environment, 30*(8), 3703–3720. https://doi.org/10.1002/bse.2835
Velte, P. (2020). Does CEO power moderate the link between ESG performance and financial performance? A focus on the German two-tier system. *Management Research Review, 43*(5), 497–520. https://doi.org/10.1108/MRR-04-2019-0182
Veprauskaitė, E., & Adams, M. (2013). Do powerful chief executives influence the financial performance of UK firms? *The British Accounting Review, 45*(3), 229–241. https://doi.org/10.1016/j.bar.2013.06.004
Villalba-Ríos, P., Barroso-Castro, C., Vecino-Gravel, J. D., & Villegas-Periñan, M. D. M. (2022). Boards of directors and environmental sustainability: Finding the synergies that yield results. *Business Strategy and the Environment, 32*(6), 3861–3886. https://doi.org/10.1002/bse.3342
Wahid, A. S. (2019). The effects and the mechanisms of board gender diversity: Evidence from financial manipulation. *Journal of business ethics*, *159*(3), 705-725. https://doi.org/10.1007/s10551-018-3785-6
Walls, J. L., & Berrone, P. (2017). The power of one to make a difference: How informal and formal CEO power affect environmental sustainability. *Journal of Business Ethics, 145*(2), 293–308. https://doi.org/10.1007/s10551-015-2902-z
Walters, B. A., Kroll, M., & Wright, P. (2010). The impact of TMT board member control and environment on post-IPO performance. *Academy of Management Journal, 53*(3), 572–595. https://doi.org/10.5465/amj.2010.51468968
Wang, H. U. I., Sui, Y., Luthans, F., Wang, D., & Wu, Y. (2014). Impact of authentic leadership on performance: Role of followers' positive psychological capital and relational processes. *Journal of Organizational Behavior, 35*(1), 5–21.
Wang, Y., Qiu, Y., & Luo, Y. (2022). CEO foreign experience and corporate sustainable development: Evidence from China. *Business Strategy and the Environment, 31*(5), 2036–2051. https://doi.org/10.1002/bse.3006
Warmate, Z., Eldaly, M. K., & Elamer, A. A. (2021). Offering flexible working opportunities to people with mental disabilities: The missing link between sustainable development goals and financial implications. *Business Strategy and the Environment, 30*(4), 1563–1579. https://doi.org/10.1002/bse.2694
Wong, J. B., & Zhang, Q. (2022). Stock market reactions to adverse ESG disclosure via media channels. *The British Accounting Review*, *54*(1), 101045. https://doi.org/10.1016/j.bar.2021.101045
Winschel, J. (2021). Climate change policies and carbon-related CEO compensation systems: An exploratory study of European companies. *Journal of Global Responsibility, 12,* 158–188. https://doi.org/10.1108/JGR-06-2020-0065
Xia, L., Gao, S., Wei, J., & Ding, Q. (2022). Government subsidy and corporate green innovation—Does board governance play a role? *Energy Policy, 161,* 112720. https://doi.org/10.1016/j.enpol.2021.112720
Xu, P., Xu, X., & Bai, G. (2022). Corporate environmental responsibility, CEO's tenure and innovation legitimacy: Evidence from Chinese listed companies. *Technology in Society, 70,* 102056. https://doi.org/10.1016/j.techsoc.2022.102056

Yu, L., & Hu, J. (2023). Employee equity incentive, executive psychological capital, and enterprise innovation. *Frontiers in Psychology, 14,* 1132550. https://doi.org/10.3389/fpsyg.2023.1132550

Yuan, Y., Tian, G., Lu, L. Y., & Yu, Y. (2019). CEO ability and corporate social responsibility. *Journal of Business Ethics, 157,* 391–411. https://doi.org/10.1007/s10551-017-3622-3

Zalata, A. M., & Abdelfattah, T. (2021). Non-executive female directors and earnings management using classification shifting. *Journal of Business Research*, *134*, 301-315. https://doi.org/10.1016/j.jbusres.2021.04.063

Zhang, C. (2017). Political connections and corporate environmental responsibility: Adopting or escaping? *Energy Economics, 68,* 539–547. https://doi.org/10.1016/j.eneco.2017.10.036

Zhang, Y., & Zhang, X. (2022). The threshold effect of executive compensation on corporate environmental responsibility: Based on the moderating effect of industry competition. *Sustainability, 14*(14), 8711. https://doi.org/10.3390/su14148711

Zhou, M., Chen, F., & Chen, Z. (2021). Can CEO education promote environmental innovation? Evidence from Chinese enterprises. *Journal of Cleaner Production, 297,* 126725. https://doi.org/10.1016/j.jclepro.2021.126725

Zhu, C., Husnain, M., Ullah, S., Khan, M. T., & Ali, W. (2022). Gender diversity and firms' sustainable performance: Moderating role of CEO duality in emerging equity market. *Sustainability, 14*(12), 7177. https://doi.org/10.3390/su14127177

Appendices

Appendix A: Language indicative of OPC in Annual report texts

Dimension	Company	Annual report text excerpts
Hope	Unilever Group (2014)	“We want to build on our progress in Europe by repeating the **achievement** internationally.”
	Shell (2017)	“Our Projects & Technology organisation manages the delivery of Shell’s major projects and drives research and innovation to develop new technology **solutions**.”
	Vodafone (2021)	“Through a shared future vision, we **believe** that both Europe and Africa can overcome their many digital divides and sizeable investment gaps.”
Optimism	Unilever Group (2014)	“in 2014 we launched a second campaign called Time Saving Idea to make simplification a habit and **encouraged** employees to try simple time-saving ideas.”
	Shell (2017)	“While we **aspire** to reduce our GHG intensity, as energy demand increases and easily accessible oil and gas resources decline, we may develop resources that require more energy and advanced technologies to produce.”
	Vodafone (2021)	“For example, we are piloting OpenRAN – a new **promising** way to engineer the access network– in rural communities.”
Resilience	Unilever Group (2014)	“The business responded to the combination of these events with **resilience** by heightening focus on cost control and margin improvement.”
	Shell (2017)	“Shell management continued to **devote** significant effort in 2017 to enhancing Shell’s system of IT general controls (ITGCs).”
	Vodafone (2021)	“As part of our **commitment** to operate ethically and sustainably, we are dedicated t understanding climate-related risks and opportunities and embedding responses to these into our business strategy and operations.”
Confidence	Unilever Group (2014)	“These quarterly scorecards are complemented by regular in-depth discussions to **reassure** committee members that systems and processes remain robust.”
	Shell (2017)	“Project delivery reflects our **capability** to complete major projects on time and within budget on the basis of targets set in our annual Business Plan.”
	Vodafone (2021)	“we are **confident** that we will meet our July 2021 target.”

Appendix B: Examples of Narcissistic Rhetoric in Annual Report Texts

Dimension	**Company**	**Annual report text excerpts**
Authority	4imprint Group (2021)	“An essential element of the 4imprint strategy is the objective to achieve a market **leadership** position in the markets we serve.”
	Vodafone (2018)	“Each Group policy is owned by a member of the Executive Committee so that there is clear **accountability** and **authority** for ensuring the associated business risk is adequately managed.”
Superiority	4imprint Group (2021)	“We have an **exceptional** culture revolving around the delivery of remarkable customer service, and a robust satisfaction guarantee that our customers can rely on.”
	Vodafone (2018)	“We offer a **superior** customer experience and continually improve our offering through a wide set of innovative products and services.”
Exhibitionism	4imprint Group (2021)	“This mindset is evident across the four pillars of our sustainability agenda through team members who go above and beyond every day to help each other, to provide **remarkable** service and to give back to their communities because they know and believe that it is the right thing do.”
	Vodafone (2018)	“Safaricom, Vodafone’s 40% associate, which is the **number one** mobile operator.”
Vanity	4imprint Group (2021)	“We are **proud** that 4imprint achieved *CarbonNeutral*® company status in October 2021, more than a year ahead of the target date.”
	Vodafone (2018)	“The 2018 survey demonstrated that 87% of employees who responded were **proud** to work for Vodafone.”
Self-sufficiency	4imprint Group (2021)	“Members of our Group Environmental and SMART committees are actively engaged with the Green **Masters** Program.”
	Vodafone (2018)	“Our technology **resilience** levels continue to mature across all sites.”
Entitlement	4imprint Group (2021)	“Data-driven **heritage** and discipline.”
	Vodafone (2018)	“However, the Board has decided in the interests of good corporate governance that all of the Directors wishing to continue in office should offer **themselves** for re-election annually.”
Exploitativenes	4imprint Group (2021)	“regular review by senior management of detailed management information; other self-monitoring; no history of control breakdown or **fraud**.”
	Vodafone (2018)	“Vodafone does not tolerate **bribery** and **corruption** in any form – we would rather walk away from a business opportunity than engage in any act of **corruption**.”