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University of Southampton

Faculty of Social Sciences – Southampton Business School

Business Studies and Management

Managerial Myopia and Sustainability Performance

by

Ahmad Esmail Khaleel Alqaad

Thesis for the degree of Doctor of Philosophy

September 2025

University of Southampton

Abstract

Faculty of Social Science

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Managerial Myopia and Sustainability Performance

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This thesis aims to enhance the understanding of managerial myopia and its impact on firms' sustainability performance. This is accomplished by performing three interrelated papers along with introductory and concluding chapters. These research papers present three connected topics: (i) a systematic literature review of the existing empirical studies exploring the effect of managerial myopia on sustainability performance; (ii) the impact of CEO myopia on environmental and social performance: the moderating role of long-term incentives; and (iii) CEO myopia and economic performance: the triple bottom line perspective on incentives and sectoral differences.

The first research paper performs a systematic literature review to explore the impact of managerial myopia on sustainability performance. Despite the increasing number of recent empirical works on the myopia-sustainability nexus, review articles in this area are rare. Consequently, the final sample of this review includes 53 articles published in 38 scholarly journals between 2000 and 2023. The findings illustrate that measuring managerial myopia is quite challenging because myopia is an unobservable attribute of firm executives; therefore, this study explains how different governance factors lead companies or managers to behave myopically. In addition, most of the studies in this review focus on one or two dimensions, with a small number exploring the three dimensions (economic, environmental, and social) of sustainability performance. These findings provide a systematic overview of the causes of myopia, explain how it impacts various sustainability dimensions, and offer directions for future research.

The second research paper empirically investigates the impact of CEO myopia on firms' non-financial outcomes and examines the moderating role of long-term incentives. Drawing on upper-echelon theory and stakeholder theory, the paper examines a sample of listed S&P 1500 firms, comprising 11,828 firm-year observations, spanning the period from 2002 to 2022. As a proxy for managerial myopia, this paper uses an industry-adjusted measure that combines CEOs' expected tenure and age. The paper provides strong evidence for a significant negative relationship between CEO myopia and environmental and social performance, hence making a significant contribution to the ongoing debate about the consequences of myopic behaviour. Furthermore, the paper demonstrates that long-term incentives help mitigate the negative impact of CEO myopia on environmental and social performance, showing that these incentives are effective in limiting CEOs' myopic behaviour.

The third paper examines the impact of CEO myopia on economic performance, the moderating role of long-term incentives, the mediating role of environmental and social initiatives and conducts a sector-based analysis. Through the lens of upper-echelon theory and stakeholder-agency theory, this paper empirically tests a sample from the S&P 1500 index-listed firms during the period from 2002 to 2022 with 11,828 firm-year observations. The results suggest that CEO short-termism is detrimental to corporate economic sustainability from the perspective of the triple bottom line approach. First, CEO myopia is significantly and negatively related to economic performance, with the effect varying between financial and non-financial firms. Second, environmental and social performance mediates the relationship between myopia and economic performance. This aligns with the SDGs perspective, which states that economic sustainability depends on advancements in environmental and social dimensions. Finally, long-term incentives effectively moderate the relationship between myopia and firms' economic performance. In terms of the difference between the two sectors, there is a significant difference between financial and non-financial firms; namely, the impact is greater among the financial firms.

Keywords: managerial myopia; sustainability performance; economic performance; environmental performance; social performance; corporate governance; systematic literature review; triple bottom line; long-term incentives; moderating role; mediating role; financial firms; non-financial firms; upper-echelon theory; stakeholder theory; stakeholder-agency theory

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Research Thesis: Declaration of Authorship

Print name: Ahmad Esmaiel Khaleel Alqaad

Title of thesis: Managerial Myopia and Sustainability Performance

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signature:

Date: September 2025

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Ahmad Esmail Khaleel Alqaad

Dedication

This thesis is dedicated to:

*My beloved father (“**Esmaiel**”) who passed away last August*

*My lovely mother (“**Ghanema**”)*

*My lovely wife (“**Sarah**”)*

*My brothers (“**Abdullah**” & “**Abdulatif**” & “**Abdulwahab**”)*

*My lovely sister (“**Heba**”)*

*My brother-in-law (“**Omar**”)*

Abbreviations

AJG	Academic Journal Guide
CABS	Chartered Association of Business Schools
CEO	Chief Executive Officer
CPY	Citations per Year
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
GRI	Global Reporting Initiative
GS	Google Scholar
KEJI	Korean Economic Justice Index
KLD	Kinder, Lydenberg and Domini
LSEG	London Stock Exchange Group
LTO	Long-term Orientation
RKS	Rankins Corporate Social Responsibility ratings
ROA	Return on Assets
SDGs	Sustainable Development Goals
UN	United Nations
VIF	Variance Inflation Factor
WoS	Web of Science

Chapter One: Introduction and Background

Chapter One: Introduction and Background

1.1 Preamble

This PhD thesis investigates the issue of managerial myopia, a classic time horizon problem, and its impact on firms' sustainability performance. Recently, the growing demand to enhance sustainability practices has been recognised both academically and practically, as stakeholders' interests in how organisations create long-term value have increased. From this point, the primary aim of this thesis is to provide a holistic framework and comprehensive understanding of the myopia-sustainability nexus presented through three interrelated papers. The introduction chapter is structured as follows. Section 1.2 presents the research background. Section 1.3 presents the research motivation, followed by the research aim and objectives in Section 1.4. Section 1.5 illustrates the research methodology used in this thesis. Section 1.6 presents a summary of each paper conducted in the thesis. Finally, Section 1.7 presents an outline of the thesis.

1.2 Research Background

Driven by environmental and social trends, the concept of sustainability has become a central area of debate among academia, society and business institutions over the past few decades (Lozano, 2015; Tingbani et al., 2020; Ye et al., 2022). Although the economic pressures from the COVID-19 pandemic still exist, climate change issues and the process of achieving zero carbon emissions can be considered the most critical social challenge for multiple economic sectors (Kavadis & Thomsen, 2023). The issuance of the Sustainable Development Goals (SDGs) by the United Nations (UN) in 2015 has increased companies' awareness of achieving these goals and has prompted these firms to become more environmentally and socially accountable. Similarly, the Global Commission on Environment and Development describes sustainable development as a framework for satisfying the current generation's needs without undermining the needs of future generations (Ye et al., 2022). This suggests the ability of organisations to create a balance between short and long-term focus, which is consistent with the term “sustainability” and its three primary interdependent elements (economic, environmental and social) performance (Hopper, 2019). According to Elkington (1998), the modern perspective on sustainability emphasises the company's triple bottom line performance, which is equally important to the three dimensions. Dyllick & Hockerts (2002)

presented these three dimensions within the context of firms as the business rationale (economic), the ecological rationale (environmental), and the community rationale (social). To achieve real progress towards corporate sustainability, several works of literature (e.g., Engert et al., 2016; Lozano, 2015) emphasise the need for a holistic approach, which implies that it is essential to take into account all three dimensions, along with their effects and interrelations.

Generating long-term value creation requires a long-term outlook from upper management to achieve persistent competitiveness and effectively navigate upcoming challenges (Kurznack et al., 2021). However, managerial myopia has become an ongoing issue that threatens companies' ability to reach their SDGs and undermines decisions that create long-term value. Drawing from early theoretical works (e.g., Stein, 1989; Narayanan, 1985), managerial myopia can be characterised by the strong emphasis of decision-makers on current earnings and stock prices, resulting in neglecting the consideration of more comprehensive future strategies. According to Nikolov (2018), managerial myopia, also known as managerial short-termism or basically myopia, has employed distinct conceptual definitions, and each focuses on a different element of the construct. Based on recent literature, myopia is significantly drawn from management, accounting and finance disciplines that conceptualise myopia as a trade-off between short and long-term outcomes (Mizik, 2010; Saboo et al., 2016). Most of the articles build myopia indicators throughout the causes of managerial myopia to develop specific measures (Peng, 2022). However, Souder & Bromiley (2012) argue that measuring managerial myopia is quite challenging because myopia is an unobservable attribute of firm executives.¹

This topic has gained significant attention in academia and has attracted the interest of scholars and policymakers. Based on the EY Poland report, “Short-termist behaviour is particularly visible in the case of public companies, which are often under pressure from their shareholders to deliver short-term outcomes” (Ernst & Young, 2014, p.1). In addition, the European Commission report found a definite trend towards short-termism among European firms that tends to favour short-term objectives and neglect long-term perspectives on sustainability (European Commission, 2020). From these points, executives should exercise caution against this conflict and understand that managers who fail to balance the demands of short and long-

¹ Literature tries to identify the causes of managerial myopia and explain this behaviour from different perspectives, from the structure and pressures from capital markets (e.g., Brochet et al., 2015; Gigler, Kanodia, Sapa, & Venugopalan, 2014), from corporate governance issues and incentives structure (e.g., Bolton, Scheinkman, & Xiong, 2006; Edmans, Fang, & Huang, 2022) and managerial attributes or traits (e.g., Antia et al., 2010; Matta & Beamish, 2008).

term periods may compromise companies' overall strategies (Drucker, 2013). Researchers try to explain the myopia-sustainability nexus from different frameworks; however, time orientation can be recognised as one of the main determinants of sustainability activities (Xu & Yang, 2023). Time orientation is a significant concept that serves as a crucial reference point for strategic decision-makers (Lavery, 2004; Marginson & Mcaulay, 2008; Mosakowski & Earley, 2000). Based on the hypothesis of cultural dimension, time orientation is classified into short-term and long-term orientation. The term "short orientation" refers to a standardised period of one year or less (Brochet et al., 2015; Marginson et al., 2010; Seo et al., 2020), where this short-termism behaviour may lead to unsustainable future activities and performance.

Public and political pressure on firms' sustainability efforts has recently grown, and businesses are becoming more aware of the need to improve their sustainability performance (Velte, 2023). In compliance with Erhemjants & Huang (2019), the way managerial myopia affects a company's sustainability performance can be explained from the perspective of two opposite views. The first view argues that a firm's primary goal is to maximise shareholders' wealth. Therefore, to achieve good sustainability performance, firms must sacrifice valuable resources which may be used to achieve good financial performance (Alhossini et al., 2021; Eisenhardt, 1989; Flammer & Bansal, 2017). The second view states that companies should increase their level of sustainability performance because this will lead to improving their ability to create long-term value and attain a competitive advantage (Kim et al., 2019; Meng & Wang, 2020; Parmar et al., 2010).

Chief Executive Officers (CEOs), who are the top decision-makers, hold the highest responsibility within organisations and are accountable for strategic decisions and responsibilities. These include managing strategic operations, monitoring risk levels, and sustaining stakeholder relationships (Aranda & Iturriaga, 2023). According to the upper-echelon theory, managers' temporal cognitive characteristics have been instructed to guide their behaviour to shape companies' growth strategies (Hambrick & Mason, 1984). This reflects how managerial short-termism prioritises immediate financial benefits at the expense of long-term value creation, influencing companies' sustainability performance (Flammer & Bansal, 2017). By conducting a survey and interviewing more than 400 CEOs, Graham et al. (2005) found that executives would neglect long-term value strategies to maintain the short-term earnings target. From this perspective, the decision-making process of the company can be explained by

CEOs' observable traits (such as age and tenure) along with their psychological behavioural characteristics (Hussain et al., 2023).

Recent scholarly works (e.g., Ridge et al., 2014) offer a nuanced evaluation of myopia as a behavioural trait observed in managers, acknowledging its potential positive or negative impact, which is based on the contextual surrounding factors or environment. Brochet et al. (2015) support this argument and illustrate that the operational environment shapes managers' perception of time by defining their time horizons and intertemporal responsibilities and activities. In a similar vein, Souder & Bromiley (2012) state that temporal orientation should be a dynamic variable instead of a static attribute, which is responsive to shifting circumstances both inside and outside the company. From this perspective, according to top executives in Sweden, the United States, and Japan, Segelod (2000) find that Japanese corporations tend to behave with a longer time horizon, while the U.S. tends to have a more myopic focus, compared to their European counterparts. Sampson & Shi (2023) support this argument and provide empirical evidence that US firms have become more short-term oriented. From a firm level, Schuster et al. (2020) illustrate that managerial myopia is not equally predominant across firms, where founder-led firms exhibit less myopic behaviour than non-founder-led firms.

Nowadays, successful companies focus on social and environmental goals rather than immediate financial gains, where corporate governance mechanisms affect their preferences for short-term or long-term objectives (Siegrist et al., 2020). Agency theory posits that the interests of managers do not always align with those of the shareholders. Consequently, they may engage in investments that do not represent the optimal choice from the shareholders' viewpoint (Flammer & Bansal, 2017). Recently, there has been a trend towards incentive-based compensation systems that improve the shareholder value of firms (Ahamed, 2022). The traditional view regarding this suggests that when managers receive appropriate incentives, they tend to outperform their peers (Abu-Ali et al., 2024). Therefore, connecting executive pay to sustainability performance highlights the importance of sustainability within the organisation, where top managers responsible for this initiative reflect a company's dedication to responsible corporate citizenship (Brochet et al., 2015). The global financial crisis has illustrated how executives' pay played a significant role in emphasising immediate profits instead of long-term viability (Bhagat & Bolton, 2014). Consistent with the work of Graham et al. (2005), CEOs with short-term horizons may prefer immediate profits and underinvest in strategic projects like R&D (e.g., Yueting et al., 2019) or innovation (e.g., He & Tian, 2013).

Therefore, long-term incentives can be used to alleviate this problem, counteract myopic behaviour and align CEOs' interests with their companies' long-term objectives (Edmans et al., 2017). In a similar vein, Flammer et al. (2019) support this argument, stating that linking part of CEO compensation to some future targets can mitigate CEOs' myopic behaviour by promoting sustainable activities.

1.3 Research Motivation

This thesis seeks to examine the relationship between managerial myopia and sustainability performance. In general, the first motivation for this topic comes from its significance to organisations, scholars, regulators and policymakers, especially those looking for long-term strategic thinking and sustainable business practices. Stakeholders are becoming more aware that short-term thinking can harm firms' sustainability goals, highlighting the need to enhance and encourage long-term thinking in modern corporate environments.²

In recent times, there has been a growing number of empirical studies examining the relationship between myopia and sustainability performance (e.g., Ding et al., 2024; Lu et al., 2024; Peng, 2022). However, it remains unclear which factors may drive companies to adopt myopic behaviours that impact their sustainability outcomes. This ambiguity arises because the concept has different perspectives and incorporates ideas from multiple fields within business studies (Kordsachia et al., 2022; Velte, 2023). Therefore, there is a need for a comprehensive understanding of the connection between managerial myopia and its implications for firms' sustainability performance through conducting a systematic literature review. This can be justified by the argument of Snyder (2019), who states that a systematic review is valuable for assessing the consistency of an effect across studies and identifying future research needs. Although there has been a significant increase in empirical studies about the relationship between managerial myopia and sustainability performance, there are still very few review articles addressing this topic. Literature increasingly acknowledges the long-term implications of myopia for businesses, making it essential for companies, practitioners, and policymakers

² Several researchers have examined the economic consequences of managerial myopia on firm performance (e.g., Antia et al., 2010, 2021; Bendig, Willmann, Strese, & Brettel, 2018), earnings management (e.g., Brochet et al., 2015; Ernstberger, Link, Stich, & Vogler, 2017) and level of investment in fixed assets and R&D (e.g., Aghamolla & Hashimoto, 2023; Edmans et al., 2017; Kraft, Vashishtha, & Venkatachalam, 2018).

to understand this relationship to address the growing demands for greater sustainability performance.

According to Souder & Bromiley (2012), the concept of myopia has been challenging to measure in different empirical research studies. Several studies have created myopia indicators based on the outcomes of this behaviour. However, according to Peng (2022), myopia is an unobservable characteristic of corporate managers that could influence their decision-making timeframe. In addition, CEOs play a crucial role in implementing strategic decisions and affecting sustainability initiatives within organisations (Lai et al., 2020). As illustrated by the upper-echelon theory, the cognitive traits of managers over time influence their decision-making scope and direct their actions to sustainable strategies. This highlights the need in the literature to investigate further how managers' attributes (in our case, age and tenure) impact their decisions toward sustainability performance.

While previous literature has recognised the influence of managerial myopia on corporate practices, there remains a need to understand how myopia impacts companies' sustainability performance. Initially, most studies on this topic have focused on this relationship through either environmental or social lenses (e.g., Qian et al., 2019; Thomas et al., 2022). However, according to Schneider & Meins (2012), the economic dimension is an essential part of firms' sustainability, emphasising the necessity of meeting the targeted SDGs and providing a holistic view of sustainability performance. In the same regard, Buck et al. (2021) and Greenland et al. (2023) support this argument and illustrate the need to examine the three dimensions (economic, environmental, and social), highlighting that ignoring any dimensions can lead to a partial picture of firms' true sustainability efforts.

CEOs play a crucial role in executing strategic decisions and choices regarding firms' sustainable initiatives. Recently, there has been a movement towards incentive-based compensation systems to improve forward-thinking decision-making attitudes. Essentially, these incentives can be classified as either short-term incentives (mainly involving base salaries and bonuses) or long-term incentives (including performance shares and stock options). Based on the preliminary research by Kang et al. (1987) and Watts & Zimmerman (1978), short-term incentives like bonuses may lead managers to focus on their personal benefits, boost short-term earnings reports and compromise investments that improve firms' environmental and social performance. However, long-term incentives are associated with meeting strategic sustainable

objectives over an extended timeframe, which can significantly enhance firms' long-term value creation. This approach can substantially mitigate CEOs' myopic behaviour and align their interests with firms' long-term strategies. Therefore, there is a need to examine whether these long-term incentives can play an effective role as a corporate governance mechanism and reduce the influence of CEO myopia on decision-making related to the three dimensions of sustainability performance.

Additionally, understanding the relationship between managerial myopia and sustainability performance has broad implications. For policymakers, it can be helpful to design an effective compensation plan that promotes long-term thinking. For firms, the sustainability topic has recently become a material issue for both financial and non-financial sectors. This can be noticed from recent financial regulations that have promoted financial firms to adopt and implement environmental strategies, just like non-financial firms (Soana, 2024). Therefore, firms can gain insights into structuring the appropriate incentives and assessing executives' traits for sustainable strategy development. For society, revealing how firms balance between short-term and long-term thinking helps hold these firms accountable for environmental, social, and economic objectives that align with the UN SDGs.

1.4 Research Aims and Objectives

This thesis seeks to assist academia, policymakers and practitioners in understanding the myopia-sustainability performance nexus. Academic researchers may fill the gap in the current literature on how the focus on short-term goals affects the establishment of sustainable strategies. In addition, understanding this relationship is crucial for policymakers and practitioners to stay in line with the recent pressures on organisations to improve their sustainability performance through effective corporate governance mechanisms.

Therefore, this thesis provides a comprehensive and systematic review of the existing literature that analyses the relationship between managerial myopia and sustainability performance. Next, it provides empirical evidence on the impact of CEO myopia on the non-financial aspects of sustainability performance with an investigation of how corporate governance mechanisms (long-term incentives) may moderate this relationship. Then, it examines the full picture by considering the three dimensions of sustainability performance (environmental, social and economic) and investigates the difference between financial and non-financial sectors.

For this purpose, the objective of the current thesis can be illustrated in three interrelated papers as follows:

- The first paper provides an inclusive and systematic review of the relationship between managerial myopia and sustainability performance by assessing and evaluating the diverse results from various articles and categorising the findings into multiple aspects (e.g., distribution across firms' sectors, theories applied and dimensions/mediums of sustainability performance).
- The second paper empirically examines the impact of CEOs' myopia (proxied by their age and tenure) on firms' environmental and social performance and whether long-term incentives moderate this relationship.
- The third paper empirically examines the direct relation between CEO myopia and economic performance, the moderating impact of CEOs' long-term incentives and whether environmental and social pillars mediate this relationship. Additionally, it conducts a sector-based analysis to highlight the differences between financial and non-financial firms.

1.5 Research Methodology

Social science researchers need to clarify the theoretical and philosophical foundations of their research methodologies. The "Research Onion" model, developed by Saunders et al. (2012), demonstrates the various research philosophies, approaches, strategies, choices, time frames, techniques, and procedures (see Appendix A). To suggest the most suitable research model for the study, researchers can express and clarify their ideas or beliefs about the nature of reality, which refers to the research paradigm (Burrell & Morgan, 1979). This paradigm can be described as an organised philosophical framework that assists researchers in structuring scientific investigations based on a consistent set of assumptions. Based on that, this thesis comprises three independent papers: one is a reviewed article, and the other two are empirical studies.

The first paper in this thesis employs a systematic review through a content analysis to investigate the impact of managerial myopia on sustainability performance. This method, originally emerging from the medical field, synthesises results systematically and uses a comprehensive and explicit methodology (Snyder, 2019). According to Seuring & Gold (2012), a literature review can be considered a form of content analysis that can be used both

qualitatively and quantitatively. In addition, content analysis is recognised as a common approach for conducting either a narrative or systematic review (Hahn & Kühnen, 2013).

In the context of accounting research, both positivism and interpretivism are frequently employed, although positivism tends to be the more dominant standard (Burrell & Morgan, 1979; Lukka, 2010). Based on this point, this dissertation will adopt the positivist paradigm as its foundational philosophical assumption. This approach is more appropriate for this thesis as it seeks to build on existing quantitative studies that utilise traditional methods by exploring the impact of managerial myopia on sustainability performance. In general, according to Lukka (2010) most accounting research relies primarily on empirical data to analyse regulatory patterns. The second layer in the "Research Onion" model, representing the methodological selection, guides researchers in determining whether to design their study inductively or deductively. In a deductive methodology, researchers generally introduce theoretical frameworks and subject these theories to testing procedures, which involve examining multiple observations (Ali & Birley, 1999). Once the findings from these procedures are obtained, the developed hypotheses can either be accepted or rejected (Saunders et al., 2012). The inductive approach is typically associated with the use of qualitative research, while the deductive approach, which is selected for papers two and three, is primarily connected to quantitative research. The quantitative research approach can be characterised as a systematic analysis of quantifiable data (Bell et al., 2018). To perform a quantitative method, essential data is gathered for the purpose of performing mathematical, statistical and computational calculations (Bryman, 2018).

According to Creswell & Creswell (2017), there is a distinct correlation between the positivist perspective in accounting research and the quantitative method, particularly when the focus is on analysing variables through statistical analysis. The second and third papers employ multiple theories as a theoretical framework (stakeholder theory, upper-echelon theory, stakeholder-agency theory) to explain the relationship between CEO myopia and sustainability performance, as well as how long-term incentives can moderate this relationship. Therefore, a deductive approach is performed, starting with a review of existing literature to formulate and clarify theories, followed by identifying effective strategies to test the proposed hypotheses (Saunders et al., 2012). In line with the positivist paradigm, the selected theories will be evaluated using statistical methods, where the quantitative method is employed in this thesis to analyse and identify the cause-and-effect relationships (Collis & Hussey, 2014). Consequently,

these approaches and methods are applied as they are most appropriate for achieving the overall objectives of this thesis.

1.6 Research Papers

1.6.1 First paper

This paper seeks to conduct a comprehensive and systematic review of existing literature that explores the relationship between managerial myopia and sustainability performance. In specific, the paper provides a systematic and inclusive outline for the myopia-sustainability nexus by evaluating and synthesising the variety of outcomes from different articles and distributing the results across several aspects: for example, publication date, citation impact, article's discipline, theories applied and dimensions/mediums of sustainability performance. In addition, this review aims to enhance prior studies' framework by demonstrating the sources (whether internal or external) that affect myopic behaviour and its impact on the three dimensions of sustainability performance. Furthermore, this review aims to present various suggestions and avenues for future research to address the existing gaps in the literature and thereby improve and enhance the understanding of the myopia-sustainability performance nexus. For this reason, this paper aims to answer the following question:

- *What do we know about managerial myopia and its impact on companies' sustainability performance, and what future research is needed for this topic?*

Data and sample:

To provide access to a wide variety of journals while reducing the likelihood of overlooking relevant articles, this systematic literature review employed two primary databases, specifically the Web of Science (WoS) and Elsevier's Abstract and Citation database (Scopus). Besides these two databases, this study conducted a search using Google Scholar (GS) to enhance the overall coverage of articles on the relevant topic, as GS provides extensive access to academic literature. The study searches the title, abstract, and keywords sections of the databases mentioned above to cover mainly the relevant search terms. The review draws on empirical studies identified through two sets of keywords (the first set is related to the myopia concept, and the second is related to the sustainability issue). To comprehensively cover the articles, the Boolean search method employs specific operators (i.e., AND) along with the use of wildcards

(*). Additionally, the references at the end of the selected sample are examined to identify any relevant papers that may have been overlooked. The search focuses on articles published between 2000 and 2023. The first stage of reading is limited to the title, abstract, and keywords, while the second stage involves a detailed reading followed by a set of inclusion and exclusion criteria. This process ensures transparency and objectivity by applying a replicable and scientific approach (Denyer & Tranfield, 2009), resulting in a final sample of 53 articles.

Main findings:

This paper summarises the findings of previous studies on the relationship between managerial myopia and sustainability performance. It finds that measuring managerial myopia is challenging since it is an unobservable trait of executives. Moreover, it examines how governance factors influence myopic behaviour in firms, affecting their sustainability performance. These findings are expected to address gaps in the current literature, providing suggestions to expand future research avenues, including my second and third papers.

Contributions to knowledge:

This systematic review aims to add to the existing literature in several ways. First, it offers a systematic and comprehensive overview of the myopia-sustainability relationship by assessing the diverse outcomes from various studies and categorising the findings across multiple aspects. Second, this review enhances the body of literature concerning the issue of myopia, adds to the growing number of empirical studies on this topic, and aims to extend existing research. Third, earlier review studies (e.g., Kavadis & Thomsen, 2023; Velte, 2023) have primarily concentrated on the impact of managerial myopia on sustainability initiatives from the perspective of ownership structure. Consequently, this systematic literature review will expand this framework by detailing the sources that shape myopic behaviour and influence companies' sustainability performance from the perspective of the three dimensions. Fourth, it offers a comprehensive understanding and produces clearly defined outlines of the key underlying sources to assist readers (such as academics, practitioners, and regulators) in recognising the state-of-the-art literature on this issue. Finally, it contributes to the literature by identifying theoretical, methodological, and emerging themes in current research, followed by a discussion of potential future research directions on this topic, which maps the road for the second and third papers.

1.6.2 Second paper

This paper empirically aims to investigate the impact of CEO myopia on firms' environmental and social performance. In addition, it examines the moderating role of long-term incentives on the relationship between CEO myopia and the two dimensions of sustainability performance. As a proxy for CEO myopia, this paper employs an industry-adjusted measure that combines both CEOs' age and tenure to provide a clear understanding of top managers' decision horizon and its impact on firms' environmental and social performance. Therefore, this paper aims to answer the following question:

- *To what extent does CEO myopia affect firms' environmental and social performance?*
- *To what extent do long-term incentives moderate the relationship between CEO myopia and the two dimensions of sustainability performance?*

Data and sample:

The sample of the second paper is based on data from the S&P 1500 index-listed companies. In detail, the paper constructs the sample using several databases. First, CEO information is extracted from the ExecuComp database, which includes data for companies in the S&P 1500 index that incorporates the S&P 500, the S&P 400 mid-cap and the S&P 600 small-cap indices. To calculate the key variable "CEO myopia", the sample firms should have all information regarding the CEOs' ages and tenures. Second, environmental and social performance data are collected from the London Stock Exchange Group "LSEG" database (previously known as Refinitiv and Asset4 Thomson Reuters). Finally, all financial information is gathered from the CompuStat database. In the end, these steps result in a final sample of 11,828 firm-year observations covering the period from 2002 to 2022.

Main findings:

The study provides empirical evidence of a significant negative relationship between CEO myopia and a firm's non-financial outcomes (environmental and social performance), offering important insights into the ongoing discussion about short-termism. Additionally, it shows that long-term incentives mitigate the effect of CEO myopia on these performance dimensions, highlighting their role in reducing CEOs' short-term orientation.

Contributions to knowledge:

Based on empirical evidence, this paper's results fill the gap in the current literature regarding the relationship between CEO myopia and environmental and social performance. In addition, this paper addresses the need for research to enhance the understanding of how governance mechanisms mitigate this myopic behaviour. Inspired by the work of Antia et al. (2010), this is the first paper to use the expected tenure of CEOs, which captures both their age and tenure, as an indicator of their myopic behaviour within the context of sustainability. Moreover, the paper contributes to the literature on corporate governance by exploring mechanisms (in our case: long-term incentives) that help mitigate the adverse impact of managers' short-term behaviour. Ultimately, this paper provides policymakers and practitioners with valuable insights for developing corporate governance methods that align the objectives of managers with long-term value creation. Based on the above, this paper makes a unique contribution by empirically examining the impact of CEOs' traits (age and tenure) on firms' non-financial outcomes and whether long-term incentives mitigate this short-term orientation, encouraging long-term thinking.

1.6.3 Third paper

In general, this paper explores the relationship between managerial myopia and sustainability performance from the perspective of the triple bottom line approach. In detail, it examines the direct impact of CEO myopia on firms' economic performance and whether the impact differs between financial and non-financial firms. Then, it examines the moderating effect of long-term incentives on this relationship across subsamples of financial and non-financial firms. Finally, it investigates whether environmental and social performance mediate the relationship between myopia and economic performance. Consequently, this paper aims to answer the following questions:

- 1- What is the direct impact of CEO myopia on firms' economic performance, and does this impact differ between financial and non-financial sectors?*
- 2- What is the impact of long-term incentives on the relationship between CEO myopia and economic performance?*
- 3- To what extent does this moderating impact of long-term incentives differ between the subsamples of financial and non-financial firms?*

4- Do environmental and social performance mediate the relationship between CEO myopia and economic performance?

Data and sample:

Several databases are used to collect the sample data for this paper. All information related to CEOs (e.g., age, tenure, incentives) is collected from the ExecuComp database. Economic performance (Tobin's Q) and financial information are extracted from the CompuStat database. For the path analysis, sustainability data (environmental and social) is collected from the LSEG database. The sample is based on data from the S&P 1500 index-listed firms. These processes resulted in a total sample of 11,828 firm-year observations spanning the period from 2002 to 2022.

Main findings:

This paper finds a significant negative relation between CEO myopia and economic performance, where this impact differs significantly between the financial and non-financial sectors. In addition, long-term incentives positively moderate this relationship, with a more pronounced impact in financial firms. Finally, environmental and social performance mediate the relation between myopia and economic performance, aligning with principles of the SDGs.

Contributions to knowledge:

Empirically, this paper adds to the existing academic literature in several ways. First, this paper advances the literature on sustainability and executive behaviour by explaining how CEOs' focus on short-term results affects sustainability performance through the lens of the triple bottom line approach. Second, this paper contributes to the literature by examining two mechanisms through which myopia impacts firms' economic performance. It examines whether long-term incentives moderate the relationship between myopia and economic performance. Then, it examines whether environmental and social pillars mediate this relationship, reflecting the interrelated principles of the SDGs. Third, the paper enhances the theoretical framework by integrating upper-echelon and stakeholder-agency theories. This approach clarifies the dynamics that influence managerial choices regarding the adoption of the triple bottom line, thereby encouraging more future-oriented strategic plans. Fourth, this paper conducts a sector-based analysis and provides a comparison between financial and non-financial firms. Most research in this area focuses on non-financial firms, excluding financial

firms. However, recent regulatory pressures from financial authorities have led financial firms to adopt sustainable strategies like those of non-financial firms (Soana, 2024). Finally, this paper provides valuable insights for businesses, practitioners and policymakers in both sectors to understand the consequences of this myopic behaviour and how to align managers' strategies with long-term economic value. Based on the above, this paper uniquely contributes by linking executives' traits to the triple bottom line, providing novel insights that expand the theoretical framework used in the context of managerial decisions and identify mechanisms that affect CEOs' myopic behaviour.

1.7 Outline of the thesis

The current thesis is presented as follows. Chapter One presents the introduction chapter. Chapters Two, Three and Four present the three self-contained papers. Finally, Chapter Five presents the conclusion section. The following section discusses each chapter in detail.

Chapter One illustrates the research background and introduces the primary content of this thesis. Specifically, it introduces the concept of sustainability, managerial myopia, and the corporate governance mechanisms used to mitigate this myopic behaviour. In addition, this chapter introduces the motivation, aim, objectives and methodology used in this thesis. This chapter then provides a summary of each paper, including the data used, the main findings and its contributions to knowledge. Finally, it outlines the overall structure of this thesis.

Chapter Two is the first paper of this thesis, which conducts a systematic literature review to explore the impact of managerial myopia on sustainability performance. This review summarises and synthesises the myopia-sustainability nexus literature to highlight the gaps in the current research and present suggestions for future studies.

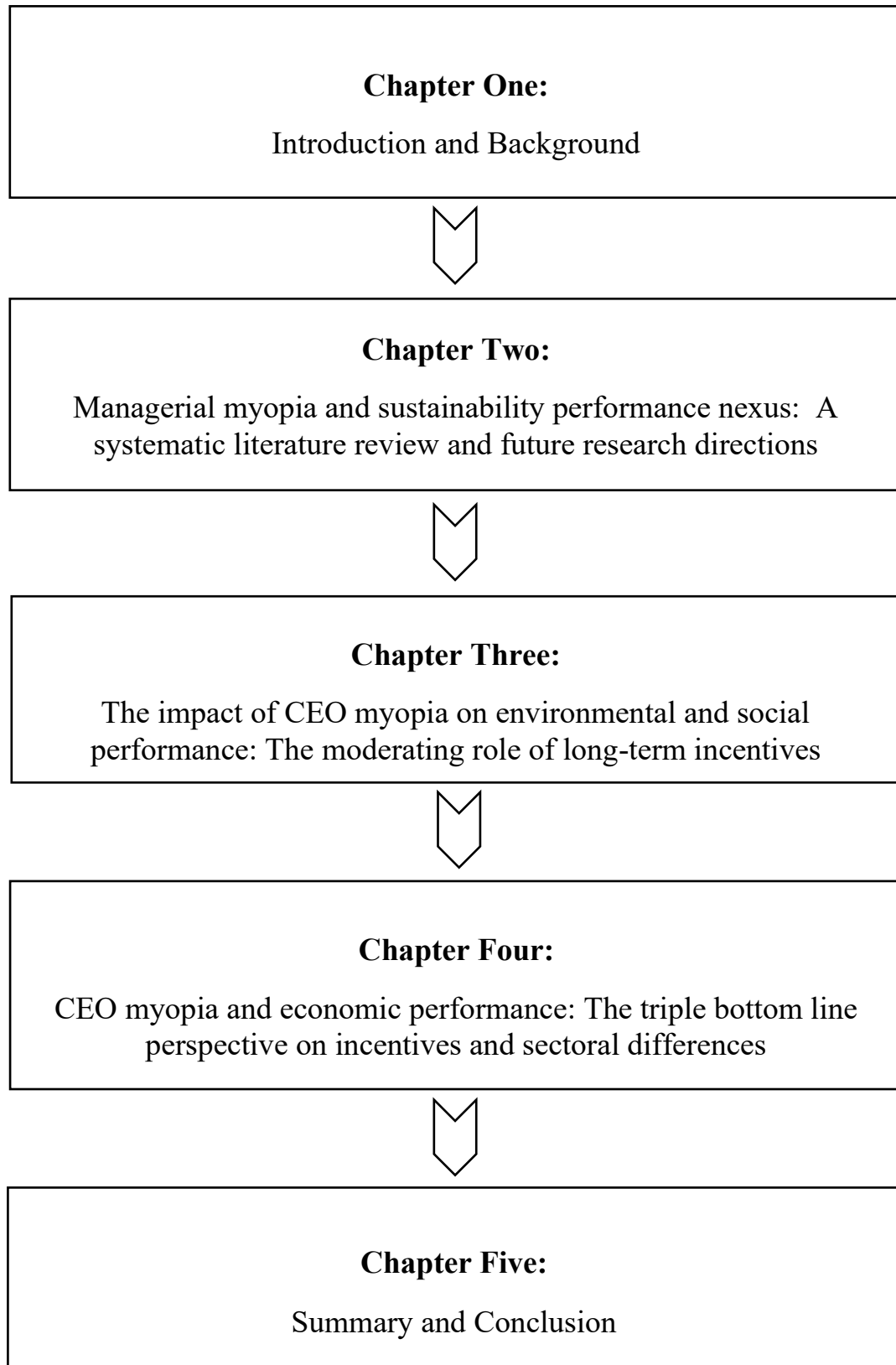
Chapter Three is the second paper that empirically investigates the impact of managerial myopia on non-financial outcomes. In detail, this paper examines the impact of CEOs' myopia (proxied by combining their expected tenure and age) on environmental and social performance. In addition, the paper provides valuable insights that can help business leaders and policymakers develop effective strategic plans and enhance corporate governance practices to promote sustainability.

Chapter Four is the third paper, which empirically examines the impact of managerial myopia from the lens of the triple bottom line approach. It examines the direct impact of CEOs' myopia

on firms' economic performance, the moderating impact of long-term incentives and the mediating effect of environmental and social performance. Additionally, it examines whether and to what extent these relationships differ between financial and non-financial firms.

Chapter Five provides a summary and conclusion for the thesis. It starts with reviewing the main findings. Then, it highlights the potential limitations and contributions to knowledge. Finally, it outlines the future research direction for the thesis, followed by a concluding remark. Figure 1.1 illustrates the overall structure of this thesis.

Figure 1.1 Thesis overall structure



Chapter Two: Research Paper 1

Managerial myopia and sustainability performance nexus: A systematic literature review and future research directions

Chapter Two: Managerial myopia and sustainability performance nexus: A systematic literature review and future research directions

Abstract

There is a growing trend in the academic literature to recognise the long-term consequences of managerial myopia for firms; therefore, understanding this relation is crucial for businesses to stay in line with the recent pressures on companies to improve their sustainability performance. Despite the increasing number of recent empirical works on the myopia-sustainability nexus, review articles in this area are quite rare. Consequently, through a review of 53 articles for more than two decades, this paper conducts a systematic literature review to explore the impact of managerial myopia on sustainability performance. The findings illustrate that measuring managerial myopia is quite challenging because myopia is an unobservable attribute of firm executives; therefore, this study explains how different governance factors lead companies or managers to behave myopically. In addition, most studies in this review focus on one or two dimensions, with a small number that explore the three dimensions (economic, environmental, and social) of sustainability performance. These findings offer a systematic outline of the causes of myopia, explain how it affects different sustainability dimensions and provide directions for future research.

Keywords: managerial myopia; sustainability performance; corporate governance; systematic literature review

2.1 Introduction

In recent decades, the concern for climate change and general sustainability issues has become a material topic to academia, society and business institutions (Jia & Li, 2020; Thomas et al., 2022; Tingbani et al., 2020). The term “sustainability” can be defined as the ability of companies to create a balance between short- and long-term focus over three interdependent dimensions “economic, environmental and social” (Hahn et al., 2015; Hopper, 2019). Of these, the environmental aspect has gained more focus recently due to growing concerns about climate change and ecological degradation. In addressing these burgeoning concerns, urban green spaces in Singapore demonstrate an integrated approach to sustainable urban planning, which combines urban development and environmental conservation (Curien, 2017). Another noteworthy case in India presents sustainable agriculture, which combines traditional methods with modern technology to increase food production while preserving ecological balance (Chen & Perez, 2018). The social concerns, which describe actions related to external stakeholders’ objectives, are considered the outcome of the interaction between the economic and environmental sustainability dimensions (Schneider & Meins, 2012). Therefore, these concerns for the environment and general sustainability issues have resulted in several academic research papers on sustainability and both public and private sector entities incorporating sustainability concerns into their managerial decisions and accounting practices (Dienes et al., 2016; Slawinski et al., 2017; Windolph, Schaltegger, & Herzig, 2014).³ Recently, the term “managerial myopia”, or basically myopia, has increasingly gained recognition as a notable concern in academic literature, where an increasing number of studies investigate the impact of this myopic behaviour on firms’ sustainability performance (e.g., Mbanyele et al., 2023; Tanthanongsakkun et al., 2022; Xu & Yang, 2023). The recent increase in academic interest indicates a wider recognition of how the focus on short-term goals may hinder the establishment of sustainable strategies. Therefore, it is crucial to investigate this relation to understand the causes, suggest solutions and promote long-term sustainable strategies.

The concept of Sustainable Development Goals (SDGs) has gained traction due to growing concern and urgency surrounding sustainable development on a global scale (Greenland et al.,

³ The International Sustainability Standards Board (ISSB), formed by the International Financial Accounting Standards (IFRS) in November 2021, announces the release of global sustainability and climate standards which will be applied starting from January, 2024.

2023). These goals provide a global framework for peace, prosperity, and dignity, emphasising the integrated economic, environmental, and social aspects of sustainable development. The formal adoption of the SDGs by the United Nations in 2015 has increased awareness among businesses and managers of the need to achieve them and move their firms toward becoming environmentally and socially accountable. However, managerial myopia has emerged as a persistent problem that jeopardises companies' ability to achieve previous development goals and destroys long-term value decisions (Thomas et al., 2022). Building on early theoretical literature (e.g., Stein, 1989; Narayanan, 1985), managerial myopia can be defined as the excessive focus on the present by decision-makers, who neglect broader future strategies in favour of earnings and stock prices. Noticing that, according to Galbreath (2017), the term “managerial myopia” is commonly utilised interchangeably with “short-termism” to represent a temporal orientation that primarily concentrates on the short term. Czakon et al. (2023) conceptualise myopia as a relatively stable behavioural disposition exhibited by executives, with variations evident among individuals. A landmark study by Graham et al. (2005), including a series of interviews with over 400 CEOs, revealed that executives would neglect long-term value strategies and behave myopically to maintain the short-term earnings target. Given this understanding, decision temporal imbalance (in our case: myopia) can be represented as one of the extreme threats to the sustainability concept (Bansal & DesJardine, 2014).

Numerous practitioners and academics believe that this short-sighted behaviour is a potential cost and a first-order issue faced by modern companies that can lead to severe consequences on the three sustainability dimensions (Davies, Haldane, Nielsen, & Pezzini, 2014; Edmans, 2009). Economically, several studies found that the 2007-2009 financial crisis can be explained from the perspective of managerial myopia (Gu, Zhou, & Ho, 2020; Rozmainsky, 2015; Sternad & Kennelly, 2017). Empirically, Kolasinski & Yang (2018) examine the above argument and find that short-termism not only played a role in the financial crisis but also was the major contributor to the subprime mortgage crisis. Environmentally, two noticeable incidents (the Volkswagen emission scandal in 2015 and the Deepwater Horizon oil spill in 2010) underscore how prioritising short-term profit maximisation and cost-cutting measures can engender severe consequences on the sustainability concept in terms of environmental impact (Dyck et al., 2019; Sridhar, 2017). From a social context, the case of Rana Plaza factory tragedy in Bangladesh in 2013, where more than 1,000 workers were killed, highlights the

detrimental effects that focusing on short-term profit maximisation and cost-cutting may have on the sustainability concept in terms of social well-being (Hopper, 2019).

Recently, there has been an increasing number of empirical works on the myopia-sustainability nexus (e.g., Choi, Kim, & Shenkar, 2023; Mbanyele et al., 2023; Peng, 2022). However, what factors may lead firms to behave myopically in a way that affects their sustainability performance? The answer is still not clear. This is because this concept has different perspectives and touches on ideas from multiple business journal disciplines (Kordsachia et al., 2022; Velte, 2023). Some review articles (Faller & zu Knyphausen-Aufseß, 2018; Kavadis & Thomsen, 2023; Velte, 2023; Villalonga, 2018) try to explain this relation from the ownership structure perspective only. There is a need for a holistic understanding of the relationship between managerial myopia and its effect on firms' sustainability performance. Therefore, the motivation and the need for performing a systematic literature review have arisen, which is also supported by the argument presented by Snyder (2019), who states that a systematic review is useful to determine whether an effect is constant over studies and what future research needs to be conducted to exhibit the effect. As discussed, the number of articles addressing the expected outcomes of 'myopia' or 'short-termism' has increased over the last two decades. In addition, Kavadis & Thomsen (2023) clearly state that short-termism is increasingly viewed as a barrier to the development of sustainable business. Fundamentally, the business field stands in need of a systematic, comprehensive analysis of how these isolated findings relate to the myopic topic and in a broader theoretical framework on how these findings may mitigate or exacerbate short-term myopic behaviour and have an effect on sustainability performance.

Despite the increasing number of empirical works on the myopia-sustainability nexus (noticing a marked rise in publications from 2019 to 2023), review articles published in this area are quite scarce. Although this limited literature (e.g., Velte, 2023; Kavadis & Thomsen, 2023) has addressed the problem of short-termism or managerial myopia, it has concentrated on specific governance areas (e.g., ownership structure). Moreover, it does not synthesise how this myopic behaviour affects the three dimensions of sustainability (environmental, social, and economic) and does not clarify the mechanisms through which this behaviour occurs. To bridge these gaps, this is the first systematic literature review to focus on this relation from a detailed perspective, despite the recent increase in literature in this field. Systematically, this paper analyses 53 peer-reviewed articles published between 2000 and 2023. It proposes a more expansive conceptual framework that includes internal, external, and contextual governance mechanisms, and

critically evaluates how managerial myopia is theorised, measured, and connected to sustainability outcomes. Consequently, this study presents the first comprehensive, multidimensional synthesis of the myopia–sustainability relationship, making a unique contribution that enhances and broadens the current literature.

There is a growing trend in the academic literature to recognise the long-term consequences of myopia for firms; therefore, understanding this relation is crucial for businesses, practitioners, and policymakers to stay in line with the recent pressures on companies to improve their sustainability performance. Kavadis & Thomsen (2023) find that taking only ownership structure into account may be an enabling but insufficient condition for firms' sustainability issues. Thus, academics and policymakers may consider other corporate governance factors that may encourage and promote firms' sustainability. As a result, the need for conducting a systematic literature review has emerged to ascertain whether the impact is consistent across studies and what additional efforts are needed to demonstrate this impact (Snyder, 2019). Moreover, it progresses the quality of the review procedure and provides practitioners and scholars with a framework for the existing literature on this topic (Wang & Chugh, 2014). Consequently, this study will fill this gap and synthesise the results to provide empirical implications for academia and practical implications for business institutions and regulators. According to Xu & Yang (2023), understanding the myopia-sustainability nexus may help policymakers outline appropriate regulations and incentives that encourage firms to adopt long-term goals for sustainable strategies. In addition, Meng & Wang (2020) illustrate that non-myopic firms can improve their sustainability performance by not only effectively allocating resources through sustainable projects, but also through investing in research and development, human capital and supply chain initiatives. In a similar vein, firms' sustainability investment decisions are governed by the quality of internal corporate governance, where understanding the relationship between myopia and sustainability performance provides a strong platform for incorporating sustainability into core corporate initiatives or business strategies (Tan, Yu, & Fung, 2022). Moreover, it aligns business benefits with stakeholders' interests in a way that increases their trust and encourages companies to concentrate on more sustainable outcomes (Kim et al., 2019; Oikonomou et al., 2020).

Based on the above arguments, this paper conducts a systematic literature review to explore the impact of managerial myopia on sustainability performance. Although this method has numerous benefits, it has not been widely utilised in the field of business; however, this has

changed recently. Khan, Kunz, Kleijnen, & Antes (2003) argue that the main difference between a systematic review and a traditional one can be explained through the implementation of a comprehensive and explicit methodology. According to Danese et al. (2018), the systematic literature review is a versatile method that offers multiple advantages over traditional non-systematic reviews. For example, this method minimises the level of bias by applying a replicable, transparent and scientific approach (Tranfield et al., 2003). Moreover, it progresses the quality of the review procedure and provides practitioners and scholars with a framework for the existing literature on a specific topic (Wang & Chugh, 2014).

In general, for the systematic review method, the research question(s) must be specific in comparison to other types of reviews, in which the research questions might be narrow or broad (Snyder, 2019). For this reason, this research aims to answer the following specific questions:

1) What do we know about managerial myopia and its impact on companies' sustainability performance?

2) What future research is needed for this topic?

Consequently, this systematic review seeks to contribute to the extant literature in numerous schemes. First, following the structure of (e.g., Alhossini et al., 2021; Ibrahim et al., 2022; Velte, 2023; Vrontis & Christofi, 2021), this review provides a systematic and inclusive outline for the myopia-sustainability nexus by evaluating and synthesising the variety of outcomes from different articles and distributing the results across several aspects (e.g., citation impact, theories applied and dimensions/mediums of sustainability performance). Second, this review enriches the literature on myopia, contributes to the increasing number of empirical papers on this topic, and tries to extend and complement existing studies. Third, prior review studies have focused on the effect of managerial myopia on sustainability activities from the ownership structure perspective only (e.g., Faller & zu Knyphausen-Aufseß, 2018; Kavadis & Thomsen, 2023; Velte, 2023; Villalonga, 2018). As a result, this systematic literature review will extend this framework by illustrating the sources (either internal or external) that influence the myopic behaviour to affect a firm's sustainability performance. Fourth, it provides a holistic understanding and produces well-documented outlines of the key underlying channels in a manner that benefits readers (e.g., academics, practitioners, policymakers, regulators), enabling them to acknowledge the state-of-the-art literature on this topic. Finally, it contributes to the literature by identifying theoretical, methodological, and emerging themes of current research, followed by a discussion of future research avenues for this topic.

The remainder of this paper is structured as follows. Section 2.2 describes and explains the methodology used. Section 2.3 presents a descriptive review of the literature. Section 2.4 presents the thematic analysis and discussion of the main findings. Finally, Section 2.5 outlines the limitations and provides suggestions for future research.

2.2 Methodology: Systematic literature review

2.2.1 Search protocol

The process of a systematic literature review starts with discovering the appropriate literature, finding the contribution and synthesising and analysing the specific topic outcomes (Denyer & Tranfield, 2009). Based on this approach, the study develops a framework primarily designed to understand the role of managerial myopia and its relationship to sustainability performance (see Fig. 2.1). This framework categorises governance mechanisms into three themes: internal, external, and contextual. These factors may exacerbate or mitigate firms' myopic behaviour, which in turn negatively or positively affects their sustainability performance. In addition, Tranfield et al. (2003) recommend a structure for the systematic literature review that may be adapted for the management field. This methodology covers three stages, which can be used for the purpose of this study: *(i) planning*, *(ii) performing*, and *(iii) reporting and dissemination*.

[FIGURE 2.1 ABOUT HERE]

The planning stage usually begins with creating a specific protocol that can help to describe all the steps required explicitly (Tranfield et al., 2003). For this systematic review, the study followed and adopted the steps offered by Petticrew (2006) and Pickering & Byrne (2014), which can be summarised in the following order and illustrated in Fig. 2.2.

1) Define the topic and formulate the research question(s):

The first step in the systematic review starts with defining the topic and specifying the research question(s).

2) Material collection and development review technique:

This step involves formulating the search strings, identifying databases used for searching, recognising filter and quality assessment criteria, and selecting of required time frame.

3) Literature search through the selection and evaluation process:

This step starts with searching electronic databases and creating inclusion and exclusion criteria. In addition, this step contains two reading stages followed by employing four exclusion and inclusion criteria. The step ends with evaluating the remaining articles against formulated criteria.

4) Data extraction and descriptive analysis:

This step extends the work by formulating a classified bibliographic table and performing a critical appraisal of the literature to extract the relevant information. Then, a descriptive analysis is performed on the content of the selected articles, including citation impact, article discipline and sustainability performance dimensions/mediums (see Section 2.3).

5) Synthesise results:

The final step starts with analysing the previous bibliographic table, discussing the key findings in the review and suggesting any limitations and future research.

[FIGURE 2.2 ABOUT HERE]

2.2.2 Databases, search strategy and timeframe

2.2.2.1 Selection of databases

This systematic literature review employed two main databases, namely Web of Science (WoS) and Elsevier's Abstract and Citation database (Scopus). According to Dienes et al. (2016), WoS represents one of the most wide-ranging databases that covers more than 17,000 journals in numerous research areas specialising in business and management. In addition, the selection of the Scopus database is based primarily on its coverage of multiple disciplines and the high quality of the articles included (Lu, Ntim, Zhang, & Li, 2022). To strengthen the process, this study repeats the search using Google Scholar (GS) as a tool for cross-checking. This is because GS leads to extensive coverage of academic literature, which helps in maintaining the ultimate coverage for the articles in the required topic (Orduna et al., 2015). However, the total number of articles remained unchanged, which supports the adequacy and reliability of the primary databases used.

2.2.2.2 Search strategy

Following a similar approach to Danese et al. (2018) and Christofi et al. (2017), this study searches the title, abstract and keywords sections of the databases mentioned above, as these fields cover mainly the relevant search terms. The empirical studies involved in this review are extracted using two sets of keywords. The first set, which is related to the myopia concept, includes the following: "Myopia" OR "Managerial myopia" OR "Myopic management" OR "Short termism" OR "Short-termism" OR "Temporal orientation" OR "Short term horizon" OR "Short- term horizon" OR "Decision horizon" OR "Career horizon" OR "Short term orientation" OR "Short-term orientation" OR "Short-sightedness" OR "*myopia" OR "Myopic*". For the sustainability issue, this review follows the work of Kavadis & Thomsen (2023) and performs the second set of keywords as follows: "Sustainability" OR "Corporate social responsibility" OR "Environmental performance" OR "Social performance" OR "Principles of responsible investment" OR "Sustainable development goals" OR "Green innovation" OR "Eco-innovation" OR "ESG" OR "CSR" OR "PRI" OR "SDG". To ensure the coverage of the articles extensively, the Boolean search technique using specific operators (i.e., AND) and the use of wildcards (*) are performed. Moreover, the references at the end of the selected sample are reviewed to check for any missing important papers. Finally, the study uses the connected papers tool, which provides visualisation for the selected papers and helps to recognise any missing key papers.⁴

2.2.2.3 Timeframe selection

The search is based on the articles that were published from the beginning of 2000 to 2023 (in specific, May 15, 2023). This timeframe is specified for four reasons. First, according to Saboo et al. (2016), myopia and short-termism practices came to light at the beginning of 2000 when some laws started to restrict artificial accounting techniques by forcing stricter accounting standards (e.g. Sarbanes-Oxley Act). Second, the presence of the sustainability concept has started to grow in the literature since the beginning of this century (Khalid et al., 2015). Moreover, the United Nations Global Compact was established in 2000 to encourage organisations and businesses to implement sustainable policies (Rasche, Waddock, &

⁴ With more than 50,000 papers, Connected Papers is a visual research tool that categorises articles based on the degree of similarity, which helps scientists and researchers to search and find relevant papers based on the field of work (Liu & Ali, 2022).

Check URL: <https://www.connectedpapers.com/>

McIntosh, 2013). Fourth, in the same year, the UN launched the Millennium Development Goals, which are the basis for the SDGs, covering some topics related to sustainable development that increase the awareness of researchers and organisations (Sachs, 2012; Greenland et al., 2023). The final month for conducting the search is May 2023 to ensure all articles are collected before this date.

2.2.3 Screening stage and inclusion/exclusion criteria

The screening process involves two stages of simultaneous reading. The first stage begins by limiting the reading to the title, abstract, and keywords. In contrast, the second stage consists of a careful, in-depth reading of the selected articles, which, in parallel, follows a set of inclusion and exclusion criteria presented as follows:

First, following the work of Christofi et al. (2017) and Lu et al. (2022), articles belonging to the area of business and management (e.g., accounting, finance, economics, marketing) are included, whereas articles that are unrelated to these fields (e.g., medicine, engineering, zoology) are excluded.

Second, in order to capture all relevant studies in this field, the review does not limit the search to a specific journal ranking database; however, this study covers all publications that are peer-reviewed academic journals and available in English (e.g., Vrontis & Christofi, 2021).

Third, in parallel with e.g., Alhossini et al. (2021) and Ibrahim et al. (2022), this study excludes conceptual articles, conference papers, book chapters and commentaries. In addition, online published papers, SSRN and e-theses are also excluded.

Fourth, articles that focus on the general term of myopia or short-termism are excluded (e.g., Srinivasan & Ramani, 2019; Wang & Wu, 2007). Any papers that examine the impact of myopia on long-term performance without a direct or indirect focus on the sustainability area are excluded (e.g., Yuan et al., 2023; Yueting et al., 2019). Following our main question, the study examines the influence of managerial myopia on sustainability performance; therefore, any papers that focus only on reporting or disclosures are excluded (e.g., Hu, Zhu, Tucker, & Hu, 2018; Rupley, Brown, & Marshall, 2012). This is because the topic of performance and disclosures/reporting are two different concepts (Katmon et al., 2019).⁵ In a similar vein, this

⁵ Sustainability performance is multi-faceted and more complicated when compared to sustainability disclosures. Sustainability performance reflects the actual actions performed by companies to attain their

study excludes articles on integrated reporting (Dienes et al., 2016). In addition, the study excludes articles that are not relevant to the review, such as those where the sustainability measure is a predictor rather than an outcome variable (Kavadis & Thomsen, 2023). Finally, the review includes articles that are related to the topic of green or eco-innovation. According to Calza, Profumo, & Tutore (2016), the term “green innovation” refers to the innovative approach that assists companies to minimise negative environmental impact in order to achieve sustainable performance goals. In addition, environmental R&D expenditures are considered part of the environmental CSR index (Choi, Kim, & Shenkar, 2023).

The initial search yielded a total of 1175 articles (612 from WoS and 563 from Scopus). Then, the selected group are filtered by removing any unrelated articles (not in the business and management area), followed by removing any duplicates. This step decreases our sample to 384 articles. Then, this review applies the inclusion/exclusion criteria discussed previously, resulting in a sample of 49 scientific articles. Lastly, following Ibrahim et al. (2022) the review examines the reference lists at the end of the sample to add any related studies to ensure that no relevant studies were missed. From this step, four studies were added, leading to a final sample of 53 scientific articles. This process assures transparency, objectivity and inclusivity by performing a well-structured research process which involves a systematic description of the searching databases, keywords used, timeframe and screening criteria (Denyer & Tranfield, 2009).

According to Liberati et al. (2009), the PRISMA flowchart visualises the flow of information through different stages in the systematic literature review. With few modifications to fit our study, this flowchart is adopted and used as shown in Figure 2.3.

[FIGURE 2.3 ABOUT HERE]

2.3 Descriptive review of the literature

In this section, the study presents the findings, including the time frame, citation impact, journal discipline, and others, in a descriptive manner. Accordingly, the illustrative synthesis performed in this review can be viewed as a conceptual innovation or reinterpretation instead of a basic description of the data gathered from the relevant articles (Campbell, Craven, &

sustainable strategies. On the other hand, sustainability disclosures refer to the method of communication or transparency of firms’ sustainable strategies to financial statement users (Katmon et al., 2019).

Shrives, 2003). These observations collected from the articles represent the initial overview and assist in clarifying potential gaps and future research (Vrontis & Christofi, 2021).

2.3.1 Research influence

Following the work of Ibrahim et al. (2022), two methods are implemented to evaluate the influence of the selected papers and where they are published. First, the selected paper is evaluated for its quality (e.g., if it is included in AJG or not). Second, the citation impact for each article is calculated using Google Scholar at a specific time.

2.3.1.1 Article's influence (quality)

First, this review starts with an overview of the published journals. The selected articles are published in 38 academic journals. *Strategic Management Journal* has the largest share by publishing 4 articles, which represents almost 8% of the 53 articles sample. *Journal of Banking and Finance*, *Journal of Business Research* and *Sustainability Journal* publish almost 17% of the articles (3 articles each). Furthermore, 6 journals published two articles representing 23% of the sample and the remaining articles, which represent almost 52%, were published in 28 academic journals (see Table 2.1).

Regarding the journal's quality, the vast majority of the selected articles were published in journals that are included in the Academic Journal Guide (AJG) of the Chartered Association of Business Schools (CABS), with a total number of 38 journals. In detail, 14 articles (30%) are published in journals that are classified as 4* or 4, representing the highest quality ranking. 19 articles (36%) are published in journals that are classified as 3, 8 articles (15%) are published in journals classified as 2, and the remaining 7 articles (13%) are published in journals classified as 1. In addition, only 3 journals (*Sustainability*, *Heliyon* and *Frontiers in Business, Economics and Management*) are not classified under the ABS ranking guide. These observations suggest that 33 studies (representing 62% of the reviewed sample) are peer-reviewed articles published in highly ranked top ABS journals (4*, 4 or 3).

[TABLE 2.1 ABOUT HERE]

2.3.1.2 Article's influence (citation)

Google Scholar indicates the number of citations for each academic article. However, it is improper to apply these raw numbers solely to appraise the impact of the reviewed articles.

Meanwhile, articles are published in different years; therefore, older articles tend to accumulate more citations compared to recent ones. While WoS and Scopus served as the primary databases, this review followed the work of Ibrahim et al. (2022) and utilised GS for citation analysis. This is because GS has broader coverage and easier access to citation data. In addition, it effectively includes a broader range of citations which align with the inclusive approach of this study (Orduna et al., 2015). Based on this, and following the method of Ibrahim et al. (2022), this review applies the analysis of citations' impact to reflect the effect of time difference in published years. The method starts with calculating the citations per year (CPY) for each selected article by applying the formula $CPY = \# \text{ of citations} / (2023 \text{ minus publication year})$. This formula to calculate CPYs is retrieved from the software “Publish or Perish”, which is a program used to help researchers analyse and retrieve academic citations.⁶ Table 2.2 illustrates authors' name, publication year, citation numbers gathered from Google Scholar on June 2023, citation year, Citations per Year (CPY) and the journal ranking based on AJG 2021. The total citations of the 53 studies are 8,299, with over 265 citations per year, leading to an average CPY of 24.26. As Table 2.2 is ranked based on the CPY column in descending order, we can notice that the most five cited articles are (Dyck et al., 2019; Flammer & Bansal, 2017; Flammer et al., 2019; Nguyen, Kecskés, & Mansi, 2020; Post, Rahman, & Rubow, 2011) with a CPY score of (284, 86.75, 74, 73.75 and 67 respectively).⁷

[TABLE 2.2 ABOUT HERE]

2.3.2 Distribution across study disciplines

Based on the inclusion criteria, this review includes articles published in the area of business and management. Most of the articles are published within the field of management, followed by finance, economics and accounting. The management discipline's journal (combining general management, strategy and organisation studies fields) that appears in the study, contributes about 42% of the sample, including the *Strategic Management Journal*, which has the highest number of studies in this review, *Journal of Business Research*, *Organization Science*, *Business & Society* and other journals in the management field. Within the finance field, the review includes the following journals: *Journal of Banking and Finance*, *Journal of*

⁶ Publish or Perish software found to be a useful, elegant and fast tool which helps researchers to discover the necessary output aspects that Google Scholar does not provide (Jacsó, 2009).

⁷ A more detailed information about the articles is presented in Appendix D (comprehensive table).

Financial Economics, *Journal of Empirical Finance* and others. The Economic field contributes to the following journals: *Ecological Economics*, *Energy Economics*, *Applied Economics Letter* and *De Economist*. Three journals have been added to the accounting discipline, which are *Review of Accounting Studies*, *Journal of Accounting and Economics* and *Accounting & Finance Journal*. Finally, several articles are published in other journals within a variety of disciplines such as international business, marketing, operations and technology management and others (see Appendix B).

2.3.3 Distribution across publication year, countries and types of study

According to the review timeframe (2000-2023), the initial study by Lavery (2004) was published in 2004, although the starting point of this systematic review began in 2000. Then, the number of articles is published consistently, with one or two articles published per year, reaching the period 2017 to 2021, when the publication rate increases slightly. After this, a sharp increase is noticed in the last two years (2022 and 2023) with a number of 17 published articles, which represents almost 32% of the sample (see Figure 2.4).

Geographically, 41 articles (77%) perform their study in one country, while 6 articles (almost 11.5%) perform their studies in two or more countries. North America (mainly the United States) contributes with 24 articles (about 45%), followed by Asia with 16 articles (30%), Europe with 4 articles (7.5%) and Australia with 1 article (2%). Finally, there are four articles (7.5%) representing a global view with more than one continent (see Figure 2.4).

Regarding the country's economic development, most studies, including 32 articles representing 60% of the sample, investigate advanced countries (the US, UK, France, Australia, Japan and Korea) while 12 articles (23%) examine emerging & developing economies, mainly China. In addition, 3 articles (5.5%) examine a sample that contains both classifications.⁸

The review includes articles that employed both types of design approaches: quantitative and qualitative. The vast majority of the articles (44 articles representing 83% of the sample) employ the quantitative method, which mainly uses statistical analyses (e.g., OLS, panel regression, DID approach) and numerical data. From the 44 quantitative articles, 40 studies collect their secondary data from specialised databases, while the remaining 4 articles use

⁸ Based on the report issued by the International Monetary Fund (IMF) in April 2023, the World Economic Outlook classifies the world into two main clusters: developed (also known as advanced economies) and emerging and developing economies.

surveys to derive their data. On the other hand, 9 articles (17%) apply a qualitative method, which emphasises investigating subjective experiences, social contexts and meanings. Noticing that no articles apply a mixed method approach, which combines the basics of the two preceding approaches (see Figure 2.4).

2.3.4 Distribution across firms' sectors, sample size and data collection time

Most of the articles (36 articles representing 68% of the sample) can be classified as longitudinal studies, which examine the data for more than three years. On the other hand, 8 articles (17%) are classified as short observation studies, which examine a period of three years or less. The remaining 9 articles do not specify a data collection period.

In terms of the sample size, 34 articles investigate a pool of more than 500 firms, 8 articles explore a range of 100 to 500 firms, and only 2 articles focus on a small set with fewer than 100 firms. Regarding the corporation's sector, 14 articles focus on the non-financial sectors, with 4 articles focusing on a specific industry. A cluster of 30 articles examines both sectors (financial and non-financial), noting that no single paper focuses solely on the financial sector (see Figure 2.4).

[FIGURE 2.4 ABOUT HERE]

2.3.5 Distribution across theories applied

Weick (1989) clarifies that theories play a dynamic role in delivering predictions and explanations to simplify the complexities of the world. Consequently, applying a theoretical framework provides crucial principles and supports researchers in expressing essential inquiries. In addition, Creswell (2009) supports this argument and clarifies that providing a theoretical framework is important to both types of studies: quantitative and qualitative. Therefore, research articles that clearly clarify and specify their theoretical framework typically lead to a more transparent view and increase the reliability of the results.

Regarding our sample, the review indicates that studies use a variety of theories from multiple disciplines. This is a positive indicator as it validates the interdisciplinary identity of this topic and encourages researchers for future work within the field. From a numerical perspective, 24 articles employ a single theory while 18 articles use a blend of theories (of which 13 articles incorporate two theories, 4 articles involve three theories, and one article applies four theories).

In addition, 11 articles fail to explicitly link their work to any theoretical background. This may affect the quality of the study according to Hoque (2014), who claims that the majority of high-rated scientific academic journals reject manuscripts that do not connect the work to a specific theory (see Figure 2.5).

Agency theory and stakeholder theory are the most frequently applied theories among the articles (each used 16 times in the reviewed articles). Upper echelon theory comes in second place, with 5 times being frequently used. Other theories are applied less than 5 times, in detail: slack-resources theory (3 times), signalling theory, resource-based view theory, institutional theory, myopia theory, time-oriented theory and organisation theory (2 times), rivalry theory, resource dependence theory, earnings management theory, environmental policy theory, corporate governance theory, stakeholder salience theory, instrumental view theory, normative view theory, social exchange theory, social network theory, the insurance hypothesis, the risk mitigation hypothesis and the myopia reduction hypothesis (1 time).⁹

[FIGURE 2.5 ABOUT HERE]

From a theoretical perspective, this review indicates that agency theory and stakeholder theory are the most common theories used in the selected articles. In general, agency theory investigates the connection between the principals, owners and shareholders, agents, and managers, and how this connection may cause a conflict of interest that comes from ownership separation (Flammer et al., 2019; Kacperczyk, 2009; Kordsachia et al., 2022). This conflict has come mainly from shareholders/managers' different perspectives, where shareholders usually show a long-term perspective and care about their company's long-term performance and sustainability; however, managers may focus on short-term performance and ignore or underinvest in any sustainable investments. To mitigate these agency issues, managers' short-term goals should be aligned with shareholders' long-term sustainability objectives through increasing board supervision and other mechanisms, such as sustainability metrics. Despite the narrow focus and lack of consideration of the agency theory (Berezinets, Ilina, & Cherkasskaya, 2017), the prominence of agency theory in myopia/sustainability relationship studies may appear from how it connects, clearly and robustly, the financial reporting with agency cost and information asymmetry in comparison to other theories in the field.

⁹ Check Appendix C for detailed information regarding theories applied in selected articles.

The difference between stakeholder theory and agency theory depends on the scope of focus. Stakeholder theory concentrates on the interests of various groups, compared to agency theory, which focuses solely on the conflict of interest between the principal and agent (Lu et al., 2022; Tauringana & Chithambo, 2015). Recently, stakeholder theory has been used frequently to explain a firm's long-term objectives and sustainability studies. Regarding our topic, stakeholder theory provides a theoretical framework counterpoint to the myopia concept by addressing the importance of long-term sustainable development to multiple stakeholders in comparison to focusing on immediate short-term returns.

2.3.6 Distribution across sustainability dimensions and basis of measurements

The vast majority of the reviewed studies can be classified into the following constructs: 1) corporate social responsibility "CSR", 2) corporate social performance "CSP" and 3) CSR investment. 35 articles are related directly to the area of CSR or similar patterns of behaviour. In detail, 15 articles mention the topic of CSR, 4 articles focus on CSR performance, and one article focuses on ESG performance. In a similar pattern, 10 articles related to the term sustainability, long-term strategy or stakeholder relationships. In addition, 5 articles focus on specific parts of CSR, (e.g., 4 articles focus on the environmental part of "green innovation" and one article focuses on the employee part of "workplace safety"). 6 studies mention the topic of corporate social performance (CSP) as their dependent variable, whereas 7 articles use the topic environmental performance or related term (emissions, low-carbon and pollution) and 1 article use the topic environmental and social performance. Noticing that most of the measures used to capture the previously mentioned CSR and performance articles are approximately the same. Finally, 3 papers use the term CSR investment, and 1 paper uses the topic of CSR disclosure and performance.

In terms of sustainability performance dimensions, the vast majority of articles (25) utilise the two dimensions (environmental and social). Noticing that 13 of the 25 articles exclude the governance score. 16 articles (representing 30%) apply a single dimension, with 14 articles focusing on the environmental dimension, while 2 articles focus on the social context. Eight articles cover the triple dimension (economic, environmental and social) while four studies, mainly qualitative studies, do not specifically cover the sustainability performance but take it from a general overview. The most widely applied medium as a basis for measurement in the reviewed articles is the MSCI ESG research database (formerly known as the KLD database),

which is used 19 times in the reviewed articles (see Figure 2.6). Kinder, Lydenberg and Domini (KLD), currently named MSCI ESG research, is a division of MSCI Inc. that focuses on and analyses the environmental, social and governance scores across different industries, regions and countries. The second most frequently used medium is Thomson Reuters Asset 4 (now known as the Refinitiv database) with a frequency of 5 times. Refinitiv is a leading corporate social responsibility (CSR) database often used by researchers and practitioners worldwide. Other mediums, such as the Rankins Corporate Social Responsibility ratings (RKS) database and the Korean Economic Justice Index (KEJI), are used twice. Other databases are used once, noticing that most of these databases are locally oriented, concentrated mainly on articles that study countries in Asia (mainly China).

[FIGURE 2.6 ABOUT HERE]

2.3.7 Proxies for myopia

In the paper's sample, managerial myopia is captured through several measures. One popular approach is textual analysis. This method was developed by Hu et al. (2021), which is based on the number of words representing a short-term horizon from the section Management Discussion & Analysis (MD&A) from firms' annual reports or conference call transcripts. In addition, this indicator is constructed using a machine learning technology and a textual analysis method established by Mikolov et al. (2013). This measure is used by several papers in the sample (e.g., Liu and Zhang, 2023; Peng, 2022; Xu and Yang, 2023) and is considered suitable as it quantifies executives' characteristics of short-term orientation directly and is less prone to subjectivity than other myopia measures, since human characteristics can be inferred from their language patterns. Another proxy that relies on managers' characteristics is CEOs' age (e.g., Oh et al., 2016) or tenure (e.g., Choi, Kim and Lee, 2020). CEOs' age is based on the concept that older managers may exhibit short-sighted behaviour that can obstruct efforts to enhance a company's long-term value. Similarly, tenure or closeness to retirement is important in evaluating managers' decision horizon concern (Antia et al., 2021). Theoretically, these measures align with the upper-echelon theory, which indicates that managers' characteristics shape their strategic choices within the context of sustainability.

Other common indicators of myopia, particularly in relation to managers' outcomes, include the reduction in long-term R&D and capital expenditures (e.g., Choi, Kim, & Shenkar, 2023; Huang et al., 2023). These investments do not produce immediate outcomes, making them less

attractive to myopic managers. In addition, managerial compensation linked to short-term performance may cause managers to think myopically, as it encourages them to focus on short-term income rather than long-term value creation (e.g., Flammer and Bansal 2017; Slawinski et al., 2017). Moreover, firms may use discretionary accruals to meet analyst earnings forecasts, which can be viewed as one of the earnings management techniques to improve firms' short-term financial outcomes (e.g., Thomas et al., 2022; Gloßner, 2019). One common proxy for short-termism is shareholder investment horizons, usually measured as investor churn rates, where short-term institutional investors can force managers to focus on immediate returns (e.g., Boubaker et al., 2017; Erhemjmat & Huang, 2019). These measures are in line with the agency theory, where the conflict arises when the principal (shareholders) and agent (CEOs) exhibit different objectives. Therefore, the latter may not usually act in the principals' optimal interest, which raises agency costs often at the expense of long-term shareholder wealth.

Some systemic features (such as temporal traps and organisational trust) indicate how management systems mitigate myopic thinking by balancing short-term and long-term trade-offs (Lavery, 2004). This is because myopia is not an individual cognitive bias but can also be an in-built trait of firms' culture and processes (Oppen & Burt, 2021). Finally, behavioural economics and psychology literature contribute by arguing that people naturally prefer immediate rewards (they are *hyperbolic discounters*), and this negative emotional state may lead to short-term behaviour that affects long-term value creation (Flammer & Bansal, 2017; Flammer et al., 2019; Kacperczyk, 2009). Based on the above discussion, these theoretical frameworks help explain the different proxies that capture managerial myopia and estimate its impact on firms' sustainability performance.

2.4 Thematic analysis

In this section, this review maps and analyses the theoretical content of the selected articles to understand the nature of the relationship between managerial myopia and sustainability performance. According to Peng (2022), the majority of articles build myopia indicators from factors or causes that lead to such behaviour in order to create specific measures. Figure 2.7 illustrates how the 53 reviewed articles are categorised based on the sources of myopia into three governance themes: internal, external and contextual governance factors. It also includes a few articles that are related to the topic. Internal governance represents factors within the direct control of firms. External governance represents influences or pressures from capital

markets and other stakeholders. Contextual governance represents broader related factors. In addition, the section discusses the nature of each study, detailing how managerial myopia affects sustainability dimensions (economic, environmental, and social), identifies consistencies and contradictions, and discusses the main findings across the sample articles.

[FIGURE 2.7 ABOUT HERE]

2.4.1 Internal governance measures

2.4.1.1 Managerial characteristics and orientation

According to Carpenter et al. (2004) and Hambrick & Mason (1984), top management (CEOs) play an essential role in shaping a company's long-term strategy, and thus their attributes influence the company's sustainability or CSR performance. Seven quantitative articles have examined the effect of managerial myopia on sustainability performance through managers' traits. Three papers (Liu & Zhang, 2023; Peng, 2022; Xu & Yang, 2023) measure the inborn personal traits of managerial myopia using machine learning and textual analysis technology. Empirically, the three articles agree that managerial myopia has a significant and negative impact on sustainability performance (both Peng (2022) and Xu & Yang (2023) on CSR performance; and Liu & Zhang (2023) on ESG performance). In addition, two articles use CEOs' tenure (Chen et al., 2019 and Choi, Kim, & Lee, 2020) and one article uses CEO age as a proxy for short-term behaviour. Moreover, using a large survey of 700 CEOs in China, Oppen & Burt (2021) investigate how the social networks surrounding a firm's leaders (managers who are embedded in closed networks) influence the strategic decisions of the firm. From the management system perspective, Laverty (2004) addresses the managerial system, which consists of three indicators (temporal traps, organisation trust & memory, and density) as a relevant source for short-termism that leads to undervaluing long-term strategies. The temporal trap is the presence of a trade-off between long and short orientation. Organisation trust & memory refer to the degree to which individuals are rewarded for their overall performance. Density refers to the extent to which individuals can choose alternatives from a range of wide to limited possibilities.

2.4.1.2 Board structure

A board of directors can be defined as a governing body responsible for acting on voluntary actions related to sustainability or CSR activities (Brammer & Pavelin, 2008; Slawinski &

Bansal, 2015). Following this argument, two quantitative articles (Galbreath, 2017; Post et al., 2011) try to investigate the impact of board structure on sustainability performance through two different measures. The first paper, Galbreath (2017), explores the board structure variable by calculating the percentage of board members who are employed by the corporation (the concentration of insiders). This paper argues that insiders are short-term focused and have a temporal orientation in nature, leading to the conclusion that the increase in the concentration of insiders on the board of directors causes a significant and negative effect on the level of CSR. The second paper, by Post et al. (2011), considers the other side of the coin by examining the level of outsiders on the board in addition to gender diversity, board age and educational level.

2.4.1.3 Executive compensation and incentives

Four articles (three quantitative and one qualitative) examined how executive compensation structure is related to managerial myopia and has an impact on long-term strategies. Flammer & Bansal (2017) measure the compensation variable using only shareholders' proposals that are passed (or nearly passed) by vote and focus on long-term executive compensation. The study finds that the passage of long-term compensation proposals counteracts short-termism and has a significant and positive association with stakeholders' relationships. In a similar vein, Deckop et al. (2006) use two measures (short-term or long-term pay focus) for the CEO's pay structure, where the variable "short-term pay focus" is measured by the proportion value of bonus in the compensation bundle and the variable "long-term pay focus" is measured by the proportion value of restricted shares and stock options in the bundle. Empirically, the results indicate that short-term pay focus correlates significantly and negatively with corporate social performance, whereas the long-term variable correlates significantly and positively with CSP. In addition, Flammer et al. (2019) find that the adoption of CSR standards in managers' compensation mitigates managerial myopia and has a significant and positive effect on social and environmental performance and green innovations, with a significant and negative effect on emissions intensity. Finally, using a qualitative integrated framework, Siegrist et al. (2020) contend that myopia or short-termism is the main obstacle to the adoption of sustainable strategies and argue that compensation packages, in addition to investor pressure, are the main factors that fuel the myopic behaviour of managers.

2.4.1.4 Impact of internal measures on sustainability

In general, there is a strong agreement that managerial myopia adversely affects firms' sustainability performance. Economically, myopic management, driven by career concerns or short-term compensation, leads to actions that affect long-term financial performance. Flammer & Bansal (2017) find that long-term compensation proposals mitigate myopic behaviour and lead to an increase in operating performance and firms' value. In a similar vein, Flammer et al. (2019) find that the adoption of CSR standards in managers' compensation leads to an increase in long-term orientation and an increase in firm value. Environmentally, managerial myopia affects investment in green innovation and the adoption of sustainable practices (Flammer et al., 2019). Managers may cut pollution abatement costs to boost short-term income, which can affect long-term environmental performance (Thomas et al., 2022). Moreover, myopic managers may not invest in R&D, potentially resulting in insufficient innovation for environmental improvements (Liu & Zhang, 2023). Socially, the sample articles indicate that managerial myopia reduces overall firms' CSR performance. This short-term behaviour may reduce engagement in social activities such as community development and employee relations. From the perspective of sustainability dimensions, most of the studies for this theme focus on one or two dimensions (mainly environmental and social), with a small number (e.g., Flammer & Bansal, 2017; Flammer et al., 2019; Nguyen, Kecskés, & Mansi, 2020) that explore the three dimensions of sustainability performance (economic, environmental and social).

While most studies on internal factors agree that myopia has a negative impact on sustainability performance, some inconsistencies remain in the results. For example, regarding the CEO characteristics, Choi, Kim, & Lee (2020) investigate the same CEO tenure; however, they use two distinct variables to measure the effect of CEO tenure (*ceofirst* and *ceolast*). The first variable, *ceofirst*, serves as the first two or three years of service, while *ceolast* represents the last year. The study shows no significant relationship in the early years, but there is a significant negative relationship between CEO tenure and CSR performance in the later years. In addition, Xu and Yang (2023) find that the impact of myopia is significant under four contexts: for firms in less competitive industries, for firms with less analyst attention, for state-owned enterprises and for firms with lower internal governance. Lavery (2004) measures the myopia indicator using survey-based research for top managers and finds that temporal traps are significantly and positively related to undervaluing long-term CSR performance. In contrast, the other two

variables (organisational trust and memory density) are significantly and negatively correlated. From the board structure perspective, Post et al. (2011) find that boards with more female directors and outsiders are correlated with higher environmental outcomes; however, the relation between myopia and environmental performance is insignificant. The previous divergence may originate from different factors (e.g., institutional, contextual); therefore, more studies are needed to understand how managers' traits interact with other governance schemes.

2.4.2 External governance measures

2.4.2.1 Institutional ownership and investor activism

In general, 14 quantitative articles examine the effect of institutional investors and pension funds from the context of time horizons and distinguish them into short- or long-term investors (e.g., Boubaker et al., 2017; Fu, Tang, & Yan, 2019; Gloßner, 2019). To empirically observe the time horizon of the investors, 7 studies (e.g., Erhemjamts & Huang, 2019; Fu et al., 2019; Kim et al., 2019) apply the investor's churn rate, which is used by Gaspar et al. (2005) and calculated in a way to measure how the institutional investors rotate their portfolio stocks quarterly, and then calculate it over four quarters (on an annual basis). A higher churn rate refers to higher portfolio turnover, indicating a long-term investment horizon, whereas a lower rate suggests a short-term horizon. Empirically, most of the studies show a significant and positive (negative) relationship between long-term (short-term) institutional investors and the level of CSR. In addition, some articles (Kim et al., 2019; Oikonomou et al., 2020; Shin & Park, 2020; Shirasu & Kawakita, 2021) find that long-term investors (e.g., pension funds) are positively correlated with environmental and social performance as they reduce managers' myopic behaviour and encourage them to deliver long-term outcomes. Others (e.g., Neubaum & Zahra, 2006; Boubaker et al., 2017; Kordsachia et al., 2022) find that some investors, like mutual funds and investment banks, often exhibit myopic behaviour due to their high turnover, which reduces their engagement in CSR activities.

2.4.2.2 Media and analyst pressure

According to Hong, Kubik, & Solomon (2000), financial analysts are a central stakeholder group that are specialists in providing suggestions, assessments and recommendations for the companies they follow. There is some evidence that financial analysts are using sustainability or CSR-related information recently in their field of work (Luo, Wang, Raithel, & Zheng,

2015). From this perspective, three quantitative articles examine the effect of analysts' pressure on the relationship between myopia and sustainability performance. Both Han et al. (2022) and Hu et al. (2023) discovered that analyst coverage pressures mitigate short-termism by pushing managers to promote sustainable investments and empirically find a significant and positive relation to a firm's environmental performance. On the other hand, Qian et al. (2019) find a significant but negative relationship between analyst coverage and corporate social performance, and argue that firms' managers become more myopic by limiting investment in long-term social and environmental activities.

2.4.2.3 Takeover vulnerability

A corporate control market, also known as a takeover market, can be classified as one of the important tools of external corporate governance; therefore, it is not surprising that some research studies have been conducted on how a takeover market may affect a firm's strategies, policies and results (Cain, McKeon, & Solomon, 2017; Chatjuthamard, Jiraporn, Lee, Uyar, & Kilic, 2021). For this review, three quantitative articles have examined whether the impact of takeover threats exacerbates or mitigates managerial myopia in a way that affects a firm's sustainability performance. The takeover variable is measured in two different ways. Both Tanthanongsakkun et al. (2022) and Wongsinhirun et al. (2022) use a unique hostile takeover index, while Kacperczyk (2009) measures the takeover variable from the perspective of how takeover protection from hostile takeovers affects companies' sustainability, using the case of Delaware.¹⁰ Empirically, Kacperczyk (2009) finds a significant and positive influence between the increase in takeover protection and the environmental performance, with no impact on social performance (attention to minorities, customers and employees). These results prove that this increase in takeover protection reduces short-termism and shifts the firm's attention to environmental activities. In favour of the managerial myopia theory, Wongsinhirun et al. (2022) find a significant and negative relationship between the increase in takeover vulnerability and a company's CSR. On the other hand, Tanthanongsakkun et al. (2022) document a significant and positive correlation between hostile takeover and environmental performance (carbon reductions), indicating that stronger takeover threats mitigate managerial myopia and improve firms' long-term environmental performance.

¹⁰ The state of Delaware provides a legal framework and business-friendly environment for corporations. After 1996, the shift of the Delaware regime provides good protection to companies from hostile takeover threats (Kacperczyk, 2009).

2.4.2.4 Governance regulations and legislation

Three quantitative papers have examined the effect of government regulations and legislation on sustainability performance from the perspective of managerial myopia. First, Bourveau, Brochet, & Garel (2022) examine the impact of the adoption of the 2014 Florange Act on French corporations.¹¹ Although the French Congress passed the act to promote corporations' sustainable orientation, the paper finds that companies that adopt the Florange Act have a significant but negative correlation with both environmental and social performance. The result indicates that the adoption of the Florange Act fails to reduce corporate myopia and leads to deteriorating environmental and social performance. From the shareholder litigation risk perspective, Jaroenjitrkam et al. (2022) investigate the effect of unexpected Ninth Circuit Court decisions in the United States, which increase the complexity of shareholder litigation, and their impact on the level of CSR. They find that the decrease in litigation risk, which comes from the Ninth Circuit governing, correlates significantly and positively with the level of CSR. The findings indicate that the decrease in litigation risk, brought about by the Ninth Circuit ruling, increases the job security of managers, leading them not to act myopically but instead to focus on long-term sustainable strategies. In the Chinese context, Huang et al. (2023) study the effect of the new environmental protection law on environmental performance (especially, the quantity and quality of green innovation). Empirically, the introduction of new environmental legislation has a significant and positive effect on the quantity of green innovation; however, the quality of green innovation shows a significant and negative relationship. These results support the argument that, under the pressure of new environmental laws, companies focus more on quantity and ignore high-quality innovations due to the exacerbation of managerial myopia.

2.4.2.5 Market competition and shareholders' pressure

Eight papers (seven quantitative and one qualitative) have investigated the impact of market competition or pressure on sustainability performance. Using survey questions, Graafland (2016) argues that the existence of price competition deteriorates a company's environmental performance, a claim supported by empirical results that reveal a significant and negative relationship between the intensity of price competition and environmental performance.

¹¹ On March 29, 2014, the Florange Act was implemented in France primarily to protect the rights of minority shareholders. It mandates the application of double-voting rights for shareholders instead of a "one share one vote" proposition for at least two years (Girard & Gates, 2020).

Graafland and Smid (2015), however, distinguish between two economic factors influencing corporate social performance: price competition and technological competition. They find no relation between price competition and corporate social performance; however, a significant and positive relationship exists between technological competition and corporate social performance. Thomas et al. (2022) examine the pressure to meet earnings benchmarks as a measure of managerial myopia. They find that firms attempting to meet these benchmarks lead them to increase the level of toxic chemicals. In a similar vein, Liu et al. (2021) find that the pressure to meet earnings expectations exacerbates managerial short-termism, where firms under earnings pressure display a significant and positive relationship with the level of SO₂ emissions. By applying a quasi-natural experiment, Qian et al. (2023) explore the effect of short-selling pressure on a firm's social performance (workplace safety). They find a significant and positive relationship between short-term pressure and workplace injuries, which is explained from the perspective that when the company faces short-term pressure, managers will exacerbate short-termism and prioritise short-term over long-term investments. In their recent paper, Mbanyele et al. (2023) discuss the negative impact of short-termism on the environment and society from a peer performance perspective. They measure the peer performance variable by using idiosyncratic stock returns and find that the increase in peer performance return has a significant and negative correlation with firms' environmental performance (green innovation). Finally, using a qualitative content analysis methodology, Chen et al. (2022) find that SMEs in China display short-term orientation in response to external stakeholder pressure resulting from the implementation of a CSR-related code of conduct, and this myopic behaviour affects the quality of firms' CSR performance.

Figure 2.8 illustrates the internal and external sources of myopia, providing a breakdown into specific subthemes. This figure highlights the most researched area within the relationship between myopia and sustainability performance.

[FIGURE 2.8 ABOUT HERE]

2.4.2.6 Impact of external measures on sustainability

Literature suggests that previous external factors have a negative impact on sustainability performance, particularly in terms of environmental and social outcomes. Similar to the internal factors theme, there is little literature (Kacperczyk, 2009; Chen et al., 2022) that investigates the three dimensions of sustainability performance. Myopic market pricing, driven

by the focus of short-term investors, can lead managers to cut long-term investments. On the other hand, long-term institutions encourage investing in CSR Activities, which can boost financial performance (Meng & Wang, 2020). In addition, Qian et al. (2023) demonstrate that pressure from short-selling may lead firms to cut corners, resulting in short-term profits but negatively impacting their long-term stock performance. From an environmental perspective, these external governance measures exacerbate managers' myopic behaviour, which may result in less stringent emission policies or the ignoring of some technological developments for environmental progress (Meng & Wang, 2020). Moreover, analysts' pressure can also lead managers to cut pollution abatement costs to meet earnings goals, which may hurt product innovation and resource efficiency (Hu et al., 2023). Socially, external pressures may exacerbate this myopic behaviour, leading to a decrease in workplace safety and an increase in employee injuries (Qian et al., 2023).

Although much of the literature highlights the negative impact of external governance measures on sustainability performance, some studies offer mixed or contradictory evidence. Erhemjmat & Huang (2019) clearly state that the academic literature shows mixed empirical evidence regarding the relationship between institutional ownership horizon and sustainability performance. In addition, analyst pressure is often linked to short-term results; however, evidence illustrates a more complex picture. Both Han et al. (2022) and Hu et al. (2023) find that increased analyst coverage can mitigate managerial myopia, thereby supporting sustainable investments and enhancing environmental performance. Conversely, Qian et al. (2019) observe a strong negative relation between analyst coverage and corporate social performance. From the perspective of takeover vulnerability, the literature presents mixed evidence. Wongsinhirun et al. (2022) suggest that an increase in takeover threats exacerbates managerial myopia, resulting in reduced investment in CSR projects. On the other hand, Tanthanongsakkun et al. (2022) demonstrate that similar threats mitigate this myopic behaviour, leading to increased investment in CSR projects. Additionally, Kacperczyk (2009) find a significant and positive relationship between the increase in takeover protection and firms' environmental performance; however, this relation becomes insignificant for firms' social performance (attention to minorities, customers and employees). One more mixed evidence related to governance regulation and legislation. Huang et al. (2023) find that new environmental legislation has a positive effect on the quantity of green innovation but a negative impact on its quality. This suggests that companies, under pressure from these laws, prioritise quantity over high-quality innovations due to increased managerial myopia. Finally,

from the perspective of market competition, Graafland and Smid (2015) find no relation between price competition and corporate social performance; however, a significant and positive relationship exists between technological competition and corporate social performance. Interestingly, Thomas et al. (2022) find that firms with more environmental ratings tend to be more myopic, cutting pollution abatement expenses to meet earnings targets. Overall, the previous findings illustrate that the effect of external measures on managers' myopic behaviour may vary significantly depending on the impact of firms' sustainability performance.

2.4.3 Contextual governance measures

Contextual governance incorporates cultural, institutional and macro-level factors that may influence the relationship between managerial myopia and sustainability performance. At the cultural and institutional levels, two quantitative papers have investigated the impact of managerial myopia. Tan, Yu, & Fung (2022) investigate how controlling shareholder immigration may cause the company to behave myopically and ignore long-term sustainability investments. The study finds that firms with expatriate-controlled ownership exhibit a significant and negative association with CSR investments and fewer patents. In addition, using global evidence, Choi, Kim, & Shenkar (2023) investigate the impact of temporal orientation and how it fuels short-termism from the perspective of three levels (country, institution and controlling investors). Empirically, the results show that a higher LTO measure and R&D and CAPEX intensity are significantly and positively related to CSR performance. At the same time, investor turnover rate is significantly but negatively related to the level of CSR. Noticing that the impact is more significant for environmental CSR compared to social CSR. Finally, two papers have discussed the problem qualitatively. Using the case of South Korea, Kim et al. (2013) find that Korean firms behave more myopically due to the interaction of three institutional pressures (normative, regulative and cognitive).¹² Slawinski et al. (2017) apply a multi-theoretical framework that examines the effects of three levels: institutional, organisational, and individual. They argue that the impact of short-termism on climate issues

¹² Normative pressures come from the expectations of institutions and society on how a firm should behave. Regulative pressures reflect the formal rules (e.g., common law and regulations) and informal rules (e.g., codes of conduct) in society. Cognitive pressures refer to the shared social knowledge which people take for granted, which guides firms' behaviour. These three norms (normative, regulative and cognitive) originate in the institutional context and support a firm's operation (Kim et al., 2013; Palthe, 2014).

(greenhouse gas emissions) can be exacerbated or mitigated by the interactions of factors with all three previous levels.

2.4.4 Other related specific studies

Five articles (Beale et al., 2009; Smith et al., 2010; Louche et al., 2019; Slawinski & Bansal, 2015; Sternad & Kennelly, 2017) examine the impact of short-termism on sustainability performance from different theoretical perspectives. By applying the roots of the theory of change, Louche et al. (2019) discuss the effect of short-termism on environmental performance from a financial perspective. They argue that the current traditional method of using ex-post information and risk-adjusted returns impedes the productive integration of low-carbon factors in financial decision-making. They offer four alternative solutions that help in changing toward a low-carbon economy: active ownership, systems interconnectivity, long-termism and carbon pricing dynamics. By using an inductive qualitative study, Slawinski & Bansal (2015) conduct a multi-case study of five oil and gas companies. They argue that companies can fix the problem of short-termism by addressing the tension between short-term and long-term goals that are related to the topic of environmental sustainability. Beale et al. (2009) use a qualitative case study (related to ExxonMobil and Royal Dutch Shell) to analyse the impact of short-termism on corporate environmental performance and find that the overreliance on short-termism does not lead corporations to perform environmental and social initiatives. Using a multidisciplinary review, Sternad & Kennelly (2017) argue that managers must follow long-term decision thinking in order to overcome the widely criticised managerial myopia issue. They argue that short-termism has a negative impact on sustainability-related behaviour; therefore, they propose a model that investigates the influence of cultural, institutional and individual factors on a firm's long-term orientation. From a marketing perspective, Smith et al. (2010) clarify that companies should move from the narrow focus of myopia to external stakeholder orientation in order to achieve a sustainable environmental society; therefore, they propose a new management vision that involves stakeholders to achieve the targeted sustainability.

[TABLE 2.3 ABOUT HERE]

2.4.5 Discussion, synthesis and analysis of main findings

This review provides a critical analysis and evaluation of the results extracted from a sample of 53 academic articles, mapping the road for researchers regarding this phenomenon (myopia),

which is evident in various business disciplines and fields. First, while most empirical studies in the sample find that managerial myopia harms firms' sustainability performance, some studies offer mixed or contradictory evidence, as discussed in Sections 2.4.1.4, 2.4.2.6 and 2.4.3. According to Souder & Bromiley (2012), the construct of myopia has proven challenging to measure in empirical studies. Based on this argument, the inconsistencies in proxies that measure this behaviour leave open questions for future research areas to improve the consistency and accuracy of myopia measurement. Second, the descriptive analysis section illustrates that academics increased their attention to the myopia-sustainability nexus in the last four years (from 2019 to 2023), which represents almost 66% of the sample. This sharp shift in the number of articles can be related to several reasons. For example, the introduction of the SDGs by the United Nations (UN) in 2015 increased companies' attention to addressing various issues related to sustainability. By the end of 2019, the European Commission introduced a framework called "The European Union's Green Deal" to shift European companies to a more sustainable economy (Eckert & Kovalevska, 2021).

The vast majority of the articles in the sample employ an empirical quantitative approach, compared to the relatively small number of qualitative studies. The reason why scholars prefer and focus more on the quantitative approach can be explained by the availability of sustainability (e.g., CSR, ESG) data for researchers, which is more appropriate for conducting empirical quantitative studies. In addition, quantitative studies are more popular in the area of corporate governance compared to qualitative studies (McNulty, Zattoni, & Douglas, 2013). For this reason, researchers may focus more on using qualitative or mixed-method approaches in the myopia-sustainability nexus. In a similar vein, the vast majority of articles in this systematic review use leading databases (e.g., MSCI, ASSET 4) to extract information regarding sustainability pillars. Although these databases offer reliable and credible sources of information, researchers may try to mitigate the bias of using a single database by applying cross-referencing data or multiple databases.

From the theoretical perspective, agency theory and stakeholder theory are the most prevalent theories in the myopia-sustainability nexus. This is not surprising because of the conflicts between these two theories. On the one hand, the primary goal of the classic agency theory is to maximise shareholders' wealth. According to Erhemjamts & Huang (2019), "the classic agency perspective on corporate social responsibility (CSR) argues that good social performance comes at the expense of good financial performance because valuable resources

are misused instead of being spent on value-added projects or returned to shareholders...”. On the other hand, stakeholder theory states that companies should look beyond wealth maximisation and try to manage the balance of stakeholders’ interests by investing in sustainability activities to achieve a competitive advantage. In addition, some studies fail to clearly explain the empirical results from the perspective of the theoretical framework applied in the research. One possible solution to overcome the two opposing views is that researchers may build their theoretical framework around the agency-stakeholder theory, proposed by Hill & Jones (1992), which unites the two previous theories to balance the interests of different stakeholders and promote long-term, sustainable practices. Regarding the frequency of theories applied, most of the articles applied a single theory, compared to other articles which applied a combination of two or more theories. According to Mellahi et al. (2016), the use of a multi-theoretical framework is more favourable to understanding the impact on organisational performance (CSR). Therefore, results indicate that the argument of whether to apply a single or multi-theoretical perspective is still open. In addition, around 21% of the articles fail to apply a theoretical framework, contrary to the argument of Creswell (2009), who confirms the importance of building the work on a specific theoretical framework for both quantitative and qualitative research.

With 14 articles focusing on the non-financial sectors, most of the articles do not differentiate between the financial and non-financial sectors. According to Tingbani et al. (2020), financial firms are subject to different regulations that may affect their accounting policies and corporate governance systems. Although this is a common practice, this strategy may lead to misleading outcomes and conclusions. In addition, most of the articles are conducted in developed countries, mainly the United States, followed by Korea, rather than developing or emerging countries. This concentration can be attributed to the availability of data, the strength of corporate governance, and the well-structured systems that developed countries have in comparison to other countries. Meanwhile, the majority of studies focus mainly on a single country, while rare studies are conducted in multiple or multinational contexts. Accordingly, these results suggest that scholars have to pay attention to studying the myopia-sustainability relationship in developing and emerging countries. Geographically, the articles are concentrated across all continents, with some articles conducted in multiple locations. However, Africa and South America show no contribution; therefore, these geographic regions should receive more attention from scholars.

2.5 Limitations and suggestions for future research

Although the methodology research for this review is extensive, it does not mean that it will be exhaustive. Since this is the first systematic literature review conducted in this area, a possible limitation may arise from missing or overlooking some key relevant articles; therefore, future work may be conducted by examining other keywords or different databases to overcome this limitation. However, this review reflects the current body of literature on this subject since it is unrealistic to include every published work in the field (Vrontis & Christofi, 2021). Second, the limited number of studies that investigate the myopia-sustainability performance nexus limits the generalisability of this paper's findings. Moreover, relying on data from developed economies may not capture governance or institutional variations present in developing economies. Third, the study ignores articles that are not relevant to the review. For example, it excludes articles that used the myopia variable as a control. Moreover, following Kavadis & Thomsen (2023), it excludes articles where the sustainability measure is a predictor rather than an outcome variable. Finally, this paper ignores potential moderating or mediating variables that may affect the relationship between managerial myopia and sustainability performance. Noticing that exploring these aspects may provide valuable insights and important directions for future studies.

Scholars may contribute to future research by expanding the view of the sustainability concept. The managerial myopia-sustainability performance nexus can be better explained by taking into consideration the definition of sustainability according to the Global Reporting Initiative (GRI) framework, which aligns with the United Nations SDGs.¹³ This framework, also known as the Triple Bottom Line, offers a standardised and comprehensive structure for evaluating firms' sustainability. In detail, it considers the whole picture, including the three dimensions (economic, environmental, and social), and emphasises the need to balance financial outcomes with broader environmental and social considerations. This is because most studies in this review focus on one or two dimensions, with a small number that explore all three dimensions of sustainability performance. In addition, regarding the one-dimensional perspective, most of the articles focus on single environmental performance while only two studies, Oppen & Burt (2021) and Qian et al. (2023), link the social dimension to the investigated topic. This emphasis

¹³ The Global Reporting Initiative (GRI) was established in 1997 in the United States by a group of organisations and companies related to the Coalition for Environmentally Responsible Economics (CERES). GRI's main mission is to provide governments and businesses with appropriate recommendations for reporting on economic, social and environmental performance (Hedberg & von Malmberg, 2003).

on single or double dimensions may provide a partial picture of the overall influence of managerial myopia on a company's sustainability performance. Despite the progress made in exploring the myopia-sustainability performance nexus, previous articles have focused on the social and/or environmental dimensions while neglecting the importance of the economic dimension (e.g., Hu et al., 2023; Oh et al., 2016; Qian et al., 2019; Thomas et al., 2022). According to Schneider & Meins (2012), economic performance is an essential component of corporate sustainability and a core condition for sustainability as well as for further contributions to economic sustainability. Companies' economic stability is important for their ability to contribute consistently to the cause of sustainability and to meet the demands of sustainable development. Future research may be conducted separately on the overall impact in addition to each of the sustainability dimensions (economic, environmental and social). This is because, for example, the environmental dimension can be more systemic, technical and may be subject to certain regulations compared to other sustainability matters (Bansal, Gao, & Qureshi, 2014). In addition, the social dimension covers actions related to external stakeholders' objectives, and it is considered the outcome of the interaction between the economic and environmental sustainability dimensions (Schneider & Meins, 2012). Therefore, future research may be conducted to adopt the lens of SDGs, investigating the three dimensions of sustainability performance (whether packed or unpacked), as managerial myopia may yield different results among dimensions, or the overall impact may differ between the aggregate score and each dimension separately.

Future research can be conducted to empirically find universally accepted measures that quantify and assess the concept of managerial myopia or short-termism. According to Souder & Bromiley (2012), the construct of myopia has proven challenging to measure in empirical studies. In addition, Peng (2022) states that the concept of managerial myopia is an unobservable attribute of managers; therefore, the majority of scholars have devised myopia indicators based on the causes of managerial myopia. Some researchers have used shareholders' short-term investments and stock turnovers to measure the level of managerial myopia (Bushee, 2001; Gaspar et al., 2005; Kim, Park, & Song, 2019). Others have measured managerial myopia based on executives' attributes like age and tenure (Antia et al., 2010, 2021; Lee et al., 2018). From an accounting context, some papers have applied some accounting measures (e.g., ROA, marketing expenses, R&D expenses) to detect if a firm's management exhibits myopic behaviour or not (Mizik, 2010; Mizik & Jacobson, 2007; Rostami et al., 2022; Saboo et al., 2016). Last but not least, a group of studies have used technical methods and

textual analysis to count the words related to the time horizon (Brochet et al., 2015; Cao et al., 2023; Peng, 2022; Sheng, Guo, & Chang, 2022). Although measuring managerial myopia is challenging, seeking a well-constructed measure helps to gain a deeper understanding of the nexus between managerial myopia and sustainability performance, providing several benefits for academia and policymakers.

Upon investigating the various managerial characteristics used to proxy managers' myopia, it becomes apparent that some attributes are not adequately explored, and several proxies or measures are employed for the same theme. Recently, some studies have investigated the impact of CEO attributes (e.g., age and tenure) on sustainability performance (Chen et al., 2019; Choi, Kim, & Lee, 2020; Oh et al., 2016). As the CEO has an important role in determining the company's strategic decision, which shapes its sustainability practices (Choi, Kim, & Lee, 2020), more future studies can be conducted on the CEO attributes and their relation to the myopia-sustainability nexus. In addition, a few papers (e.g., Galbreath, 2017; Post et al., 2011) have investigated how board composition may influence managerial myopia in a way that affects a firm's sustainability performance. The board of directors can be described as the paramount governance mechanism of the company (Jiraporn, Lee, Park, & Song, 2018) where members of the board may incorporate different temporal time orientations because they usually perform different tasks on the board (Galbreath, 2017). Ultimately, this paper promotes consistency in the use of proxies and measures to quantify the same factor or variable.

Most studies in the sample have primarily focused on identifying and understanding the direct effect of managerial myopia on sustainability performance (e.g., Cao et al., 2023; Peng, 2022), with fewer studies examining strategies to mitigate this short-term orientation. Future studies may be conducted to assess the interaction effect or the moderating mechanism that may reshape the existing relationship. Failing to consider these interaction effects (e.g., regulatory environments, compensation structures) may compromise both the theoretical framework and the practical relevance of existing findings. In addition, uncertainty provides an important lens to understand the intensity of firms' myopic behaviour and its impact on sustainability performance. Generally, uncertainty can be defined as a state of insufficient knowledge where it is unable to describe a current situation or upcoming consequences (Hubbard, 2014). Recently, uncertainty has become a widespread phenomenon that can arise from multiple sources, including economic policy (such as the Brexit referendum), global crises (such as the

COVID-19 pandemic), political instability (such as the Russian-Ukrainian war), or climate change. According to Jia & Li (2020), uncertainty due to political instability, economic policy or climate change discourages companies' long-term investments and has a negative impact on their sustainability performance. Future research may be conducted to examine this impact and whether it influences the concept of managerial myopia.

Another future research direction could be to focus more on conducting qualitative research in addition to quantitative studies. Attention has been drawn to the limited number of qualitative studies in this systematic review. Possible explanations could be linked to two potential factors: research traditions and the challenges in analysing qualitative research (Christofi et al., 2017). Applying specific techniques (e.g., surveys and case studies) may provide an in-depth understanding of the relationship between managerial myopia and sustainability performance. Future research may assess the perceived benefits or limitations of the myopia concept and adopt a qualitative approach to gather information by administering questionnaires or conducting interviews (Ibrahim et al., 2022). In addition, the qualitative method outperforms the quantitative method in that it views human behaviour as being dynamic, fluid and changing over time, which allows scholars, socially and subjectively, to understand the participants in the study (Kasim & Antwi, 2015). From an economic development perspective, empirical corporate governance research is still in its infancy in developing countries due to a lack of data or a lack of corporate governance practices (Abang'a et al., 2022). For this reason, qualitative studies are particularly helpful in less developed countries that may have inadequate databases or barriers to accessing the required data (Lu et al., 2022).

Regarding the international variation, most articles in this review are conducted in developed countries (mainly the USA and Europe) compared to the remaining studies, which focus on a single developing country, particularly China. There is a lack in the literature, and no attention has been given to other geographic regions such as Africa, South America and Middle Eastern countries. No articles have investigated the difference between developed and developing countries for the topic under consideration. This shortage in multi-geographic studies may lead to inaccurate generalisations and an incomplete understanding of the economic and institutional attributes that existed in multiple countries, which may influence the managerial myopia impact on sustainability performance. Based on the descriptive time-frame analysis (see Figure 2.4), a dramatic increase is noticed in the topic from 2019 until the date of conducting this systematic review. Therefore, more research should be conducted in emerging and developing countries

because these regions have domestic challenges that affect companies in the economic, social or environmental context. In comparison to developed countries, developing countries display relatively weaker corporate governance mechanisms and legal protection, which may influence companies' stakeholders to have different needs and expectations regarding sustainability activities (Hąbek & Wolniak, 2016; Katmon et al., 2019). Hence, taking into consideration the differences among countries in their local accounting standards or regulations (Lu et al., 2022). In a similar vein, the number of articles that study the topic on a global scale is very scarce. The vast majority of the articles examine the topic from the perspective of a single nation (e.g., Boubaker et al., 2017; Mbanyele et al., 2023; Qian et al., 2019). Limiting the sample to specific countries or regions that have similar characteristics may result in limiting the generalisability of outcomes. According to Pucheta-Martínez & Gallego-Álvarez (2020), exploring sustainability-related issues from a global perspective helps to understand the multi-country framework for sustainability performance better, thereby enhancing the transparency and comparability of economic, environmental, and social data.

List of Tables

Table 2.1 Article's influence (quality)

No.	Journal	Articles No.	Total %	AJG 2021
1	Strategic Management Journal	4	7.5%	4*
2	Journal of Business Research	3	5.66%	3*
3	Sustainability	3	5.66%	N/A
4	Journal of Banking and Finance	3	5.66%	3
5	Organization Science	2	3.77%	4*
6	Business and Society	2	3.77%	3
7	Corporate Social Responsibility and Environmental Management	2	3.77%	1
8	Business Strategy and the Environment	2	3.77%	3
9	Journal of Management	2	3.77%	4*
10	Journal of Business Ethics	2	3.77%	3
11	Journal of Management Studies	1	1.88%	4
12	Review of Accounting Studies	1	1.88%	4
13	Managerial Finance	1	1.88%	1
14	European Management Journal	1	1.88%	2
15	Thunderbird International Business Review	1	1.88%	2
16	Frontiers in Business, Economics and Management	1	1.88%	N/A
17	Management Decision	1	1.88%	2
18	Global Finance Journal	1	1.88%	2
19	Ecological Economics	1	1.88%	3
20	Heliyon	1	1.88%	N/A
21	EEE Transactions on Engineering Management	1	1.88%	3
22	International Journal of Emerging Markets	1	1.88%	1
23	De Economist	1	1.88%	1
24	Journal of Accounting and Economics	1	1.88%	4*
25	Journal of Public Policy and Marketing	1	1.88%	3
26	Applied Economics Letters	1	1.88%	1
27	Management Science	1	1.88%	4*
28	Academy of Management Journal	1	1.88%	4*
29	Organization and Environment	1	1.88%	3
30	Accounting & Finance	1	1.88%	2
31	Pacific Basin Finance Journal	1	1.88%	2
32	Journal of Cleaner Production	1	1.88%	2
33	Review of Managerial Science	1	1.88%	2
34	Journal of empirical finance	1	1.88%	3
35	Energy Economics	1	1.88%	3
36	Journal of Financial Economics	1	1.88%	4*
37	European Journal of Finance	1	1.88%	3
38	Journal of Global Responsibility	1	1.88%	1
Total		53	100%	

Table 2.2 Article's influence (citation)

No.	Author	Year	# of Citations*	Citation years**	CPY***	AJG 2021 Ranking
1	Dyck et al.	2019	1136	4	284.00	4*
2	Post et al.	2011	1041	12	86.75	3
3	Flammer and Bansal	2017	444	6	74.00	4*
4	Flammer et al.	2019	295	4	73.75	4*
5	Nguyen, Kecskes and Mansi	2020	201	3	67.00	3
6	Yong Oh et al.	2011	770	12	64.17	3
7	Slawinski & Bansal	2015	440	8	55.00	4*
8	Slawinski et al.	2017	242	6	40.33	3
9	Chen et al.	2019	148	4	37.00	3
10	Neubaum and Zahra	2006	616	17	36.24	4*
11	Kacperczyk	2009	489	14	34.93	4*
12	Deckop et al.	2006	576	17	33.88	4*
13	Kim et al.	2019	128	4	32.00	3
14	Kordsachia et al.	2022	31	1	31.00	2
15	Oh, Chang and Cheng	2016	205	7	29.29	3
16	Louche et al.	2019	96	4	24.00	3
17	Gloßner	2019	89	4	22.25	3
18	Kim et al.	2013	220	10	22.00	3
19	Erhemjmaths and Huang	2019	86	4	21.50	3
20	Smith et al.	2010	256	13	19.69	3
21	Liu et al.	2021	38	2	19.00	4*
22	Galbreath	2017	104	6	17.33	3
23	Thomas et al.	2022	16	1	16.00	4
24	Shirasu and Kawakita	2021	27	2	13.50	2
25	Oikonomou et al.	2020	36	3	12.00	3
26	Laverty	2004	227	19	11.95	2
27	Siegrist et al.	2020	35	3	11.67	2
28	Opper & Burt	2021	22	2	11.00	4*
29	Qian et al.	2019	43	4	10.75	4*
30	Han et al.	2022	9	1	9.00	3
31	Fu, Tang and Yan	2019	30	4	7.50	3
32	Wongsinhirun et al.	2022	6	1	6.00	1
33	Boubaker et al.	2017	34	6	5.67	2
34	Choi, Kim and Lee	2020	16	3	5.33	N/A

No.	Author	Year	# of Citations*	Citation years**	CPY***	AJG 2021 Ranking
35	Bourveau, Brochet and Garel	2022	5	1	5.00	4*
36	Graafland	2016	35	7	5.00	2
37	Shin and Park	2020	13	3	4.33	N/A
38	Huang et al.	2023	4	1	4.00	3
39	Sternad & Kennelly	2017	23	6	3.83	1
40	Meng and Wang	2020	11	3	3.67	1
41	Beale et al.	2009	33	14	2.36	2
42	Choi, Kim and Shenkar	2023	2	1	2.00	4
43	Jaroenjitkam, Treepongkaruna and Jiraporn	2022	2	1	2.00	1
44	Qian et al.	2023	2	1	2.00	4*
45	Tan, Yu & Fung	2022	2	1	2.00	2
46	Tanthonongsakkun et al.	2022	2	1	2.00	3
47	Graafland and Smid	2015	12	8	1.50	1
48	Chen et al.	2022	1	1	1.00	1
49	Hu et al.	2023	0	1	0.00	N/A
50	Liu and Zhang	2023	0	1	0.00	3
51	Mbanyele et al.	2023	0	1	0.00	1
52	Peng	2022	0	1	0.00	N/A
53	Xu and Yang	2023	0	1	0.00	N/A
TOTAL			8299	265	1286	

- * Number of citations as viewed in Google Scholar in June 2023.
- ** Citation years = 2023 – publication year
- *** CPY = Citations / Citations year

Table 2.3 Empirical studies' findings

Theme (# of articles)	Myopia sources	Impact on myopia	Sustainability performance		
			Economic	Environmental	Social
Managerial Characteristics (7)	- Increase in CEO age - Duration of CEO tenure	Myopic		Mix results	Mix results
	- CEO network closure				Significant (-ve)
	- Personal ST attribute			Significant (-ve)	Significant (-ve)
Board Structure (2)	- Insider directors	Myopic		Significant (-ve)	Significant (-ve)
	- Outsider directors	Non-myopic		Significant (+ve)	Significant (+ve)
Executive compensation (3)	- Short-term focus	Myopic		Significant (-ve)	Significant (-ve)
	- Long-term incentive - CSR-based contract	Non-myopic	Significant (+ve)	Significant (+ve)	Significant (+ve)
Institutional Ownership (14)	- High Investor churn rate - Top management owner. - Expatriate shareholder	Myopic		Significant (-ve)	Significant (-ve)
	- Low investor churn rate - Institutional investors - Active investors - Foreign investors	Non-myopic	Significant (+ve)	Significant (+ve)	Significant (+ve)
	- Passive investors - Domestic investors - Outside directors' ownership			Not significant	Not significant
Analyst coverage (3)	- Analyst coverage pressure	Myopic		Mix results	
	- No. of analyst's coverage			Significant (-ve)	Significant (-ve)
Takeover vulnerability (3)	- Takeover threat	Myopic		Significant (-ve)	Significant (-ve)
		Not myopic		Significant (+ve)	
Governance regulation and legislation (3)	- Takeover protection	Not myopic	Significant (+ve)	Significant (+ve)	Not significant
	- Adoption of Florange act	Myopic		Significant (-ve)	Significant (-ve)
	- Adoption of new environmental law			Mix results	
	- Decrease in litigation risk	Non-myopic		Significant (+ve)	Significant (+ve)

Theme (# of articles)	Myopia sources	Impact on myopia	Economic	Environmental	Social
Market competition (7)	- Price competition	Myopic		Significant (-ve) Not significant	Not significant
	- Technological competition	Non-myopic		Significant (+ve)	Significant (+ve)
	- Short-selling pressure	Myopic	Significant (-ve)		Significant (-ve)
	- Peer performance pressure			Significant (-ve)	Significant (-ve)
	- CSR-related pressure			Significant (-ve)	
Contextual (2)	- Country LT orientation	Non-myopic		Significant (+ve)	Significant (+ve)
	- CAPEX and R&D				
	- Investor turnover rate	Myopic		Significant (-ve)	Significant (-ve)

List of Figures

Figure 2.1 Theoretical Framework

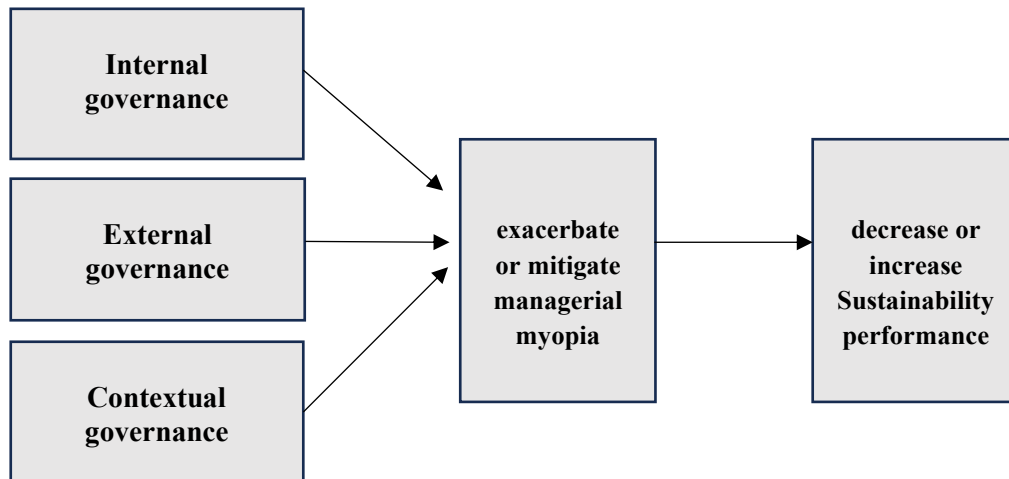


Figure 2.2 Systematic Literature Review Approach

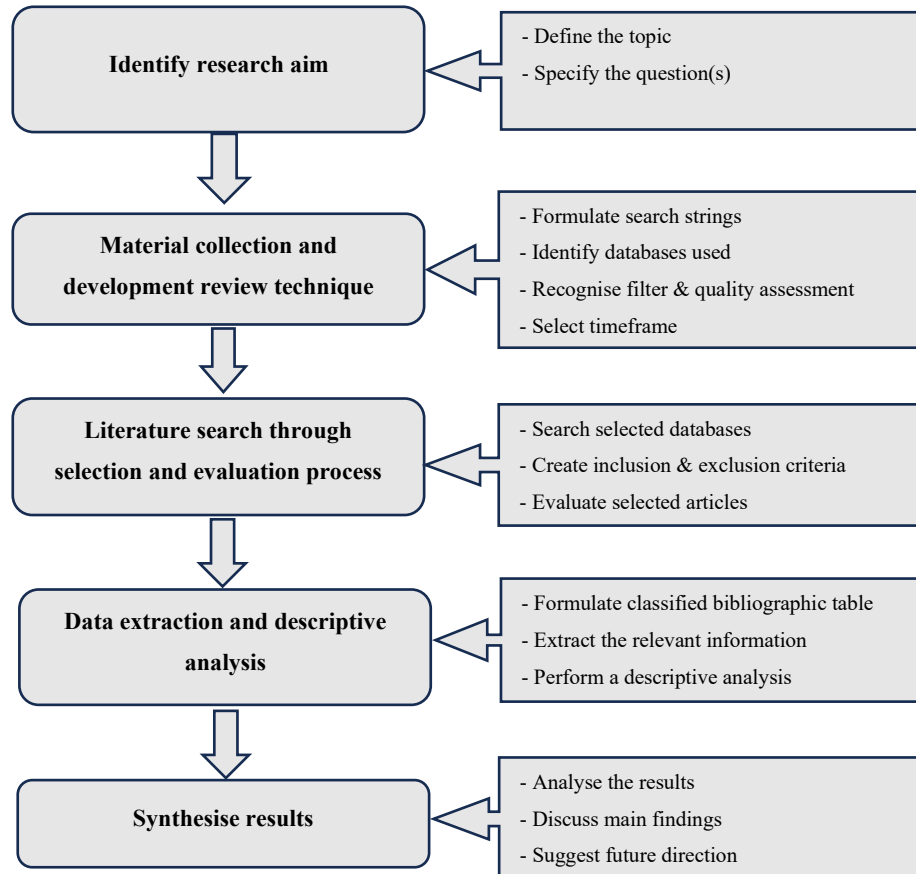


Figure 2.3 PRISMA flow diagram

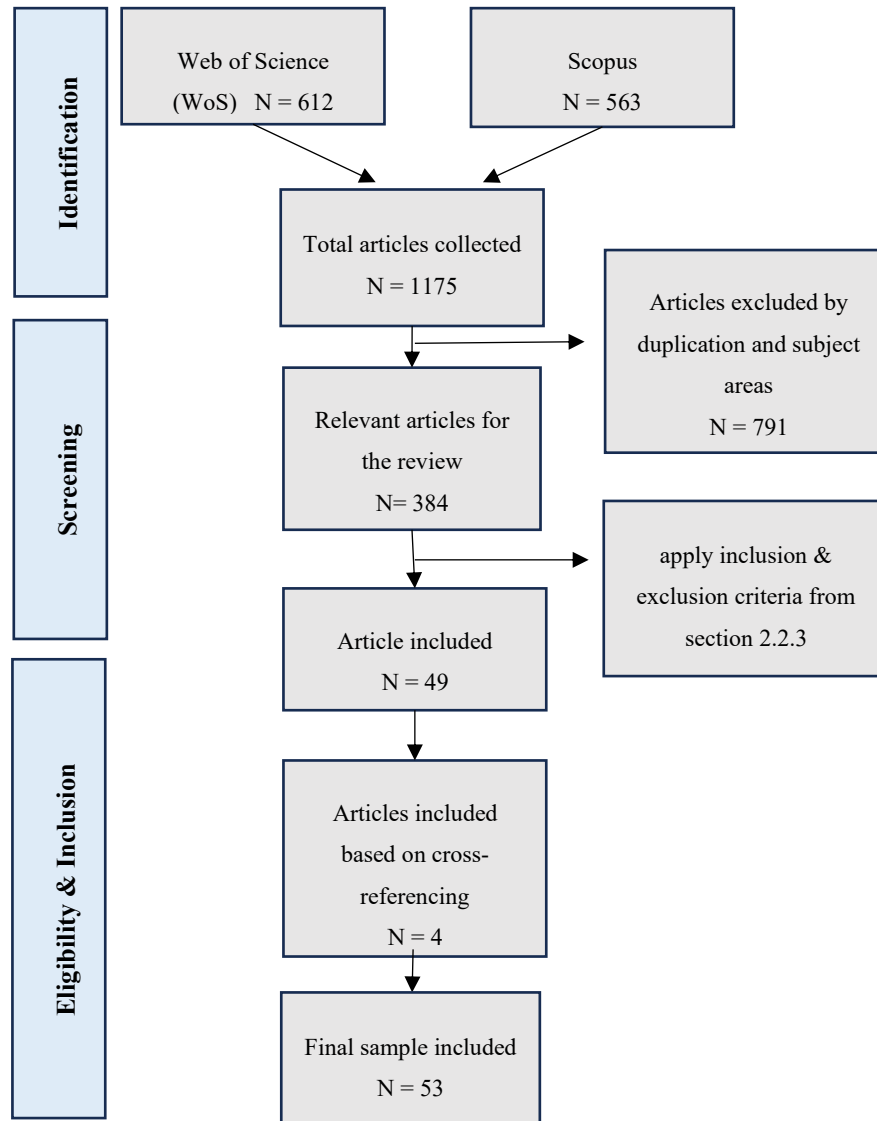


Figure 2.4 Distribution across countries, type of study, firm sector, data collection time and timeframe

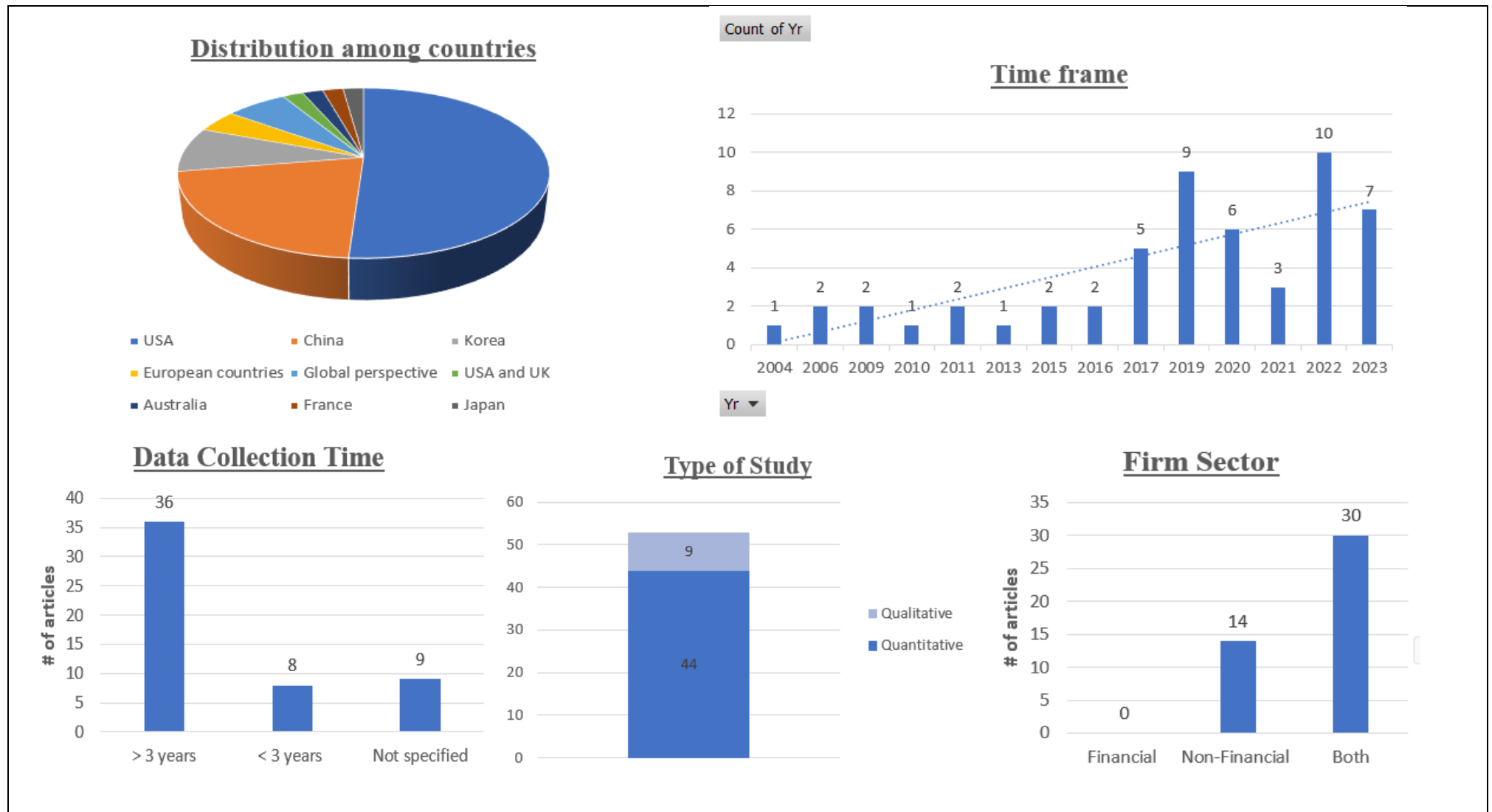


Figure 2.5 Distribution across theories applied

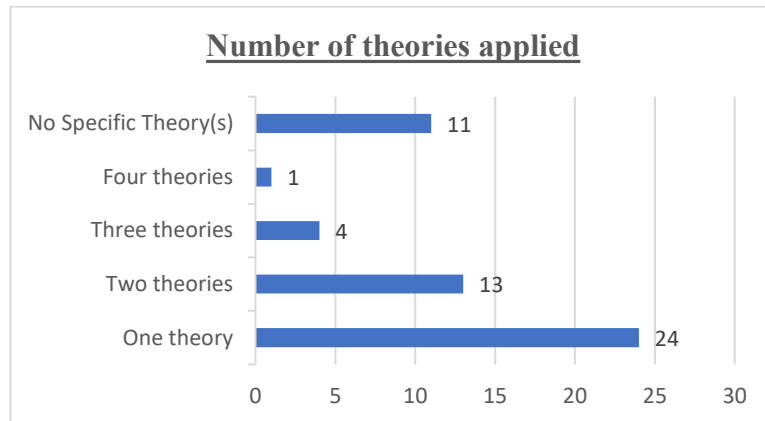


Figure 2.6 Sustainability Dimensions and Databases Used

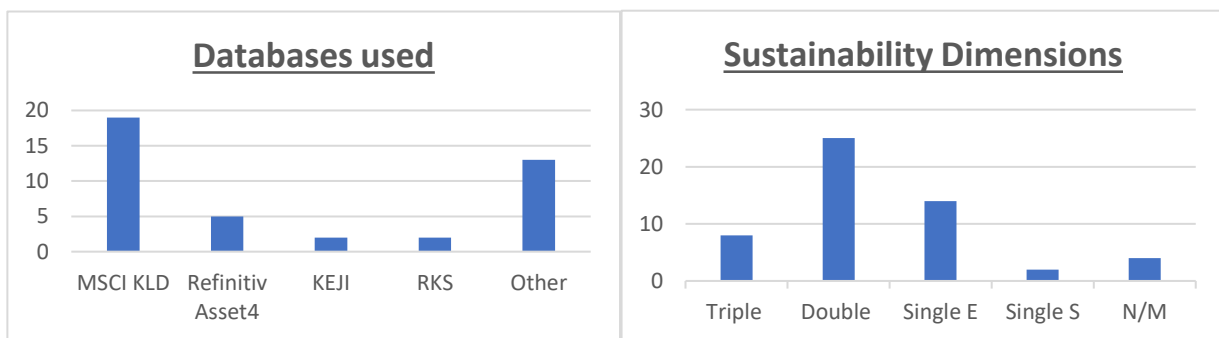


Figure 2.7 Thematic analysis (sources of myopia)

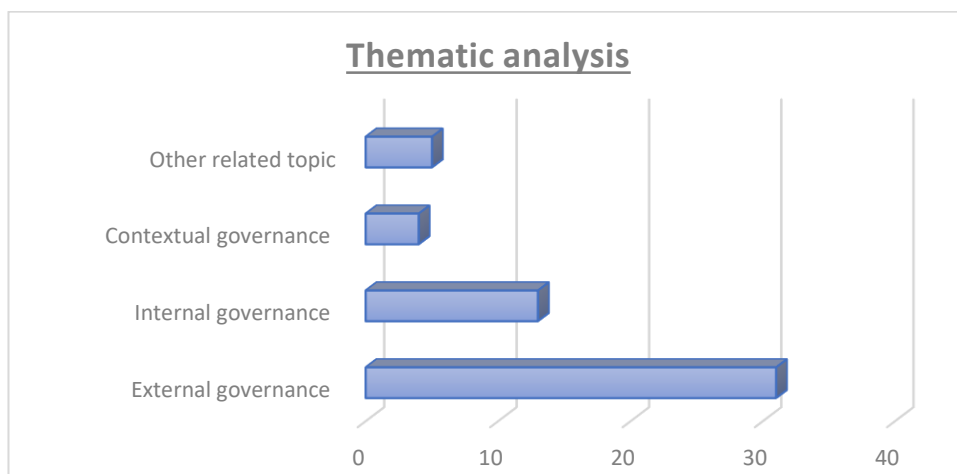
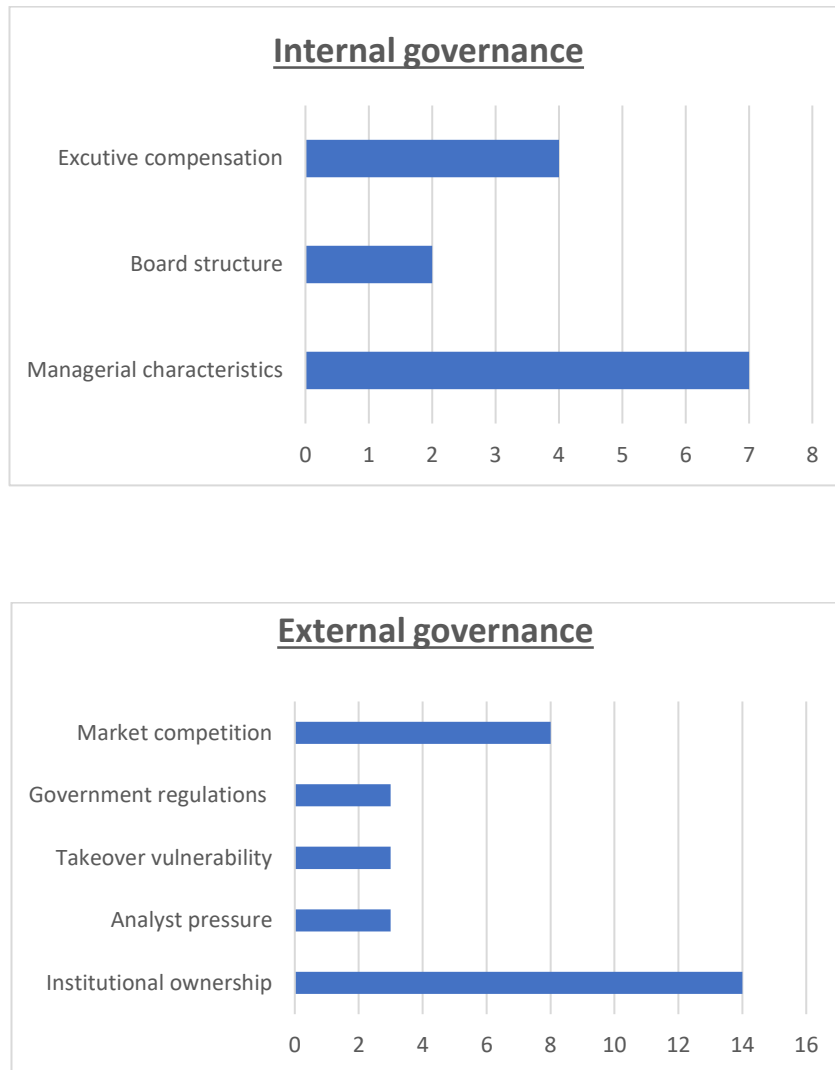


Figure 2.8 Sources of Internal and External Governance



Chapter Three: Research Paper 2

The impact of CEO myopia on environmental and social performance: The moderating role of long-term incentives

Chapter Three: The impact of CEO myopia on environmental and social performance: The moderating role of long-term incentives

Abstract

This paper empirically investigates the impact of managerial myopia on firms' sustainability performance, utilising a sample of listed S&P 1500 firms covering the period from 2002 to 2022. Drawing on upper-echelon theory and stakeholder theory, this paper investigates the impact of CEO myopia on both environmental and social performance. In addition, through the lens of agency theory, it examines the moderating role of long-term incentives on the relationship between CEO myopia and the two dimensions of sustainability performance. Empirically, the paper applies multiple regression models with industry and year-fixed effects to analyse a sample of 11,828 firm-year observations. As a proxy for managerial myopia, this paper uses an industry-adjusted measure that combines CEOs' expected tenure and age. The paper provides strong evidence for a significant negative association between CEO myopia and the two dimensions of sustainability performance (environmental and social), constituting a crucial input to the ongoing debate about the consequences of short-termism. Moreover, it finds that long-term incentives positively moderate the impact of CEO myopia on both environmental and social performance, which indicates the effectiveness of these incentives in mitigating CEOs' myopic behaviour. The main results are robust to addressing endogeneity issues and using alternative measures for CEO myopia and sustainability performance. Finally, this paper presents valuable insights that policymakers and business practitioners can use to promote strategic planning and enhance corporate governance mechanisms to improve business sustainability.

Keywords: CEO myopia; environmental performance; social performance; sustainability; corporate governance; long-term incentives; moderating role; upper-echelon theory; stakeholder theory; agency theory

3.1 Introduction

Sustainability has emerged as a persistent consideration for business institutions which aim to navigate the complexities of the current global business landscape (Lai et al., 2020; Stolyw & Paugam, 2023; Tingbani et al., 2020). According to Elkington (1998), with the triple bottom line approach, companies are transitioning from a financial accounting-focused view to a more long-term view of environmental and social responsibilities.¹⁴ This approach encourages companies to work sustainably, creating a balance between short-term and long-term performance across environmental and social initiatives. In addition, due to the growing concern about sustainability, the United Nations (UN) issued the Sustainable Development Goals (SDGs) in 2015, which encouraged companies to adopt and integrate sustainable practices into their strategies (Greenland et al., 2023). Despite the growing awareness and adoption of sustainable policies, companies' decision-makers face challenges in maintaining or reconciling short-term financial returns with long-term sustainable activities. One example is the case of Amazon, which has been criticised for its social practices and inadequate working conditions to maintain future economic growth (Mulugeta, 2022). Another example can be found in the Volkswagen emission scandal in 2015, when the company faced pressure to balance financial performance with meeting emission standards (Sridhar, 2017). This can be related to the concept of "managerial myopia", which has become a vital problem for companies seeking to achieve a balance between environmental concern and social well-being (Flammer & Bansal, 2017; Laverty, 2004; Siegrist et al., 2020).

Managerial myopia occurs when managers prioritise short-term gains over long-term investments that would maximise the value of their companies (Stein, 1989; Narayanan, 1985). This tendency to prioritise short-term goals can adversely affect companies' environmentally or socially sustainable initiatives, as these strategies usually require long-term investments, which myopic managers often neglect in favour of immediate outcomes (Xu & Yang, 2023). Graham et al. (2005) surveyed and interviewed more than 400 CEOs and found that executives often neglect long-term value strategies to maintain the short-term earnings target. Consequently, CEOs with myopic behaviour may lead to insufficient investments in activities essential for firms' sustainability performance, such as environmental initiatives or employee

¹⁴ In addition, the Global Reporting Initiative (GRI) was founded in late 1997 with the objective of creating global guidelines to report environmental and social sustainability issues. These guidelines started with corporations as a primary target and then expanded their target to include business, governmental, and non-governmental organisations (Raar, 2002).

safeguarding. For this reason, many scholars and practitioners view this short-sighted behaviour as a significant cost and a primary challenge for modern companies, potentially resulting in severe implications for their environmental and social performance (Davies, Haldane, Nielsen, & Pezzini, 2014; Edmans, 2009).

Managers are vital in implementing strategy choices and influencing sustainability practices within companies (Lai et al., 2020; Lu et al., 2024). According to the upper-echelon theory, the temporal cognitive characteristics of managers have been demonstrated to direct their decision horizon and guide their behaviour to shape companies' growth strategies (Cao et al., 2023; Hambrick & Mason, 1984). Literature (e.g., Antia et al., 2010; Lee et al., 2018) has illustrated that managerial opportunism can be a key determining factor for short-termism, where managers may prefer to prioritise short-term profits that benefit themselves, even at the expense of long-term plans that would be optimal for their companies. In simple terms, decisions that may be considered better from a managerial perspective can be intertemporal suboptimal from a firm's perspective. From the time orientation perspective, a short-term relationship may raise agency costs and information asymmetry between principals and agents. This relationship is crucial for modern firms, as CEOs with short-term decision horizons often display myopic behaviour that may affect firms' sustainability projects due to uncertainty around their immediate financial benefits (Antia et al., 2010). This is consistent with previous literature (e.g., Antia et al., 2010; Li et al., 2021), demonstrating that CEOs with long-term decision horizons tend to pursue growth opportunities and invest in strategies that maximise firms' long-term value. However, the impact of this short-termism behaviour is still insufficiently explored from the environmental and social perspectives.

Despite existing efforts to link this myopic behaviour to different business outcomes, the evidence concerning its effect on firms' sustainability performance remains inconsistent. For example, while Oh et al. (2016) suggest that the correlation between CEO traits and CSR is influenced by external factors (e.g., ownership structure), others, such as Flammer and Bansal (2017), highlight the negative impact of myopia on environmental performance. These inconsistencies imply that the effects of this myopic behaviour are context-dependent and may differ across the two dimensions of sustainability performance. In addition, existing literature often predicts a consistently negative link between short-termism and sustainability performance (e.g., Cao et al., 2023). However, this assumption might overlook instances where managers undertake short-term sustainability efforts that yield different outcomes. For

example, Li (2019) supports this argument and indicates that myopia offers an informational benefit that is overlooked in previous literature. He states that, in contrast to managers who prioritise long-term outcomes, a moderately myopic manager encourages the advocate of a risky long-term project to produce additional information, which results in increasing the value of the firm. Moreover, compared to the social dimension, the environmental pillar may be technical, systematic, and subject to specified regulations (Bansal, Gao, & Qureshi, 2014). Moreover, the social dimension can be explained as the result of the relations between the environmental and economic dimensions, and it describes the conflicts related to firms' stakeholder objectives (Schneider & Meins, 2012). Therefore, this paper highlights the need for a more comprehensive understanding and explores the relationship between managerial myopia and firms' environmental or social performance.

Second, although prior literature has consistently shown that the decision horizon of CEOs has a substantial impact on firms' strategic outcomes (e.g., Matta & Beamish, 2008), this decision horizon precisely matters for environmental or social activities since it has been observed as a long-term investment (Oh et al., 2016). Existing studies illustrate notable shortcomings or conflicts when constructing myopia measures. For example, using textual analysis for managerial communications may result in incorrect inferences, which may lead to inconsistent measures of myopia (Huang et al., 2014). Oh et al. (2016) use a sample of US-based firms and find a significant negative relation between CEO age and CSR only when there are high levels of discretion and blockholders' ownership. In addition, Chen et al. (2019) find that the correlation between CEO tenure and level of CSR is not linear and differs at different points in their career. Given the shortcomings of existing measures, and based on the above argument, this paper adopts a myopia measure developed by Antia et al. (2010) based on both CEOs' age and tenure. This measure clearly understands top managers' expected tenure, which is a key determinant of CEOs' strategic decision horizon regarding firms' sustainability performance. In addition, it is relatively adjusted to the industry median, thereby controlling for industry-specific patterns in executive turnover. This is consistent with Lucier et al. (2002), who state that CEOs' myopic behaviour may vary significantly across industries. Therefore, this industry-adjusted measure is superior to previous myopia measures as it controls for the industry effect on both tenure and age. For example, high-tech industries involve companies led by young CEOs or management teams compared to mature industries. In addition, specific industries may experience a substantially high rate of turnover among senior executives. Building on previous discussion, this measure is more precise and offers a comparable assessment of

myopia within different firm contexts, which leads to a more robust analysis of how this myopic behaviour may affect firms' environmental and social performance.

A growing body of literature has examined how corporate governance mechanisms affect firms' preferences for short-term or long-term objectives (Deckop et al., 2006; Flammer & Bansal, 2017; Siegrist et al., 2020). Based on the early findings of Watts & Zimmerman (1978) and Kang et al. (1987), when CEOs receive compensation mainly through short-term rewards like bonuses, they might sacrifice investments that enhance environmental performance or societal well-being mainly to maximise short-term reported earnings and, in turn, their own utility. Therefore, recently, there has been a shift towards incentive-based compensation systems, which enhance companies' shareholder value (Ahamed, 2022). According to Wu et al. (2022), equity incentives have been widely accepted in developed countries and are considered an effective mechanism to align managers' and shareholders' interests while reducing agency conflicts. In modern corporate governance, managers' incentives mainly consist of two common types: short-term and long-term incentives (Shang et al., 2023). Short-term incentives often involve base salaries and bonuses, usually paid within a one-year period. In contrast, long-term incentives are linked to achieving strategic goals (in our case, sustainability) over a longer period, which can effectively enhance companies' long-term value (Balkin et al., 2000; Hu et al., 2024). Long-term incentives, including performance shares and stock options, are increasingly integrated into CEOs' compensation, with a value realised often exceeding guaranteed compensation packages (Van Wyk & Wesson, 2021). Although prior literature has acknowledged the role of CEOs in shaping organisational outcomes, there are still notable gaps in addressing how long-term incentives may moderate these relations. According to Larcker & Tayan (2023), it is important to understand how aligning incentive packages with firms' long-term objectives may mitigate CEOs' myopic behaviour, especially regarding environmental and social performance. From the upper-echelon perspective, when CEOs' interests align with firms' values, their management practices will embody these values, which will impact their engagement in influencing managerial decisions (Hu et al., 2024).

Based on the upper-echelon theory (Hambrick & Mason, 1984) and stakeholder theory (Freeman, 1984), this paper seeks to address existing gaps in the literature and illustrate how managerial myopia affects firms' environmental and social performance. In addition, based on the view of agency theory, it examines how CEOs' long-term incentives serve as a corporate governance mechanism that can moderate the influence of managerial myopia on decision-

making related to the two sustainability dimensions. Empirically, this paper uses a sample of S&P 1500 firms that comprise large, mid, and small-cap firms for the period spanning from 2002 to 2022. For the main independent variable, the paper uses a measure for CEO myopia, previously developed by Antia et al. (2010), which serves as a proxy for managerial myopia and captures both CEOs' age and tenure. The dependent variables include environmental and social performance, which are both measured using LSEG scores. The moderating variable (long-term incentives) is approximated by the value of performance shares and stock options granted in the fiscal year. Additionally, the paper incorporates three sets of control variables related to firm-level characteristics (firm age, firm size, leverage, ROA, capital intensity, profitability, and capital expenditures), executive-level characteristics (percentage of ownership, CEO gender and CEO Duality), and board-level characteristics (board size, the proportion of independent directors, and the existing of sustainability committee).

Inspired by the work of Antia et al. (2010), this paper uses a combination of CEOs' age and tenure to construct a proxy for myopia. The key findings in this paper illustrate that firms' sustainability performance is maximised in the absence of managerial myopia. Empirically, CEOs' myopia is significantly and negatively associated with environmental and social performance. As CEOs' decision horizons shorten with age and tenure, they are more likely to exhibit managerial myopia, which is reflected in firms' sustainability performance. In addition to offering direct evidence on the effect of CEO myopia on firms' environmental and social performance, this study adds to the field of sustainability and corporate governance by investigating how compensation structure can mitigate such short-term behaviour. Empirically, long-term incentives positively moderate the negative relationship between managerial myopia and the two sustainability performances (environmental and social), which reflects this mechanism's effectiveness in reducing myopia's influence on decision-making related to the sustainability concept. Finally, to strengthen the credibility of the outcomes, it is worth noting that the paper performs 2SLS regression to address endogeneity concerns and conducts a series of robustness tests, confirming the main results.

The contributions of this paper are fivefold. First, it contributes to the literature on executive behaviour and sustainability by providing explanations for how CEOs' short-term orientation influences firms' non-financial outcomes. Using a dual theoretical framework, this paper enhances the existing literature on the factors affecting corporate environmental and social activities through the lens of psychological or cognitive traits. Second, this paper responds to

the call for research to improve the understanding of how CEOs' decision horizons affect managerial outcomes, from the perspective of the cognitive or psychological attributes, regarding sustainability performance (Aktas et al., 2021; Hussain et al., 2023). Inspired by the work of Antia et al. (2010), this is the first paper that uses CEOs' expected tenure, which captures both their age and tenure, as a proxy for myopia in the context of sustainability. Third, this paper contributes to the literature on Upper-echelon theory (Hambrick & Mason, 1984) and stakeholder theory (Freeman, 1984). Although the upper-echelon view highlights how CEOs' characteristics influence strategic decisions (e.g., Oh, Chang and Cheng, 2016; Chen et al., 2019), limited studies connect these characteristics (in our case: age and tenure) to non-financial outcomes. By incorporating stakeholder theory, this paper illustrates that CEOs with shorter expected tenure are less likely to prioritise the long-term interests of stakeholders. Fourth, this paper contributes to the literature on corporate governance by exploring strategies or approaches that help mitigate the adverse impact of managers' short-term behaviour. It provides evidence of how long-term incentives moderate the relationship between CEO myopia and environmental and social performance. Previous studies have primarily focused on understanding the direct effect of myopia (e.g., Cao et al., 2023; Mizik, 2010; Peng, 2022), with fewer studies dedicated to mechanisms for mitigating its impact. Therefore, this study fills this gap by examining the use of long-term incentives to reduce CEO myopia. Finally, this paper offers valuable insights for policymakers and practitioners to understand the consequences of myopia on non-financial outcomes and encourage corporate governance practices that help align managers' plans with long-term sustainable strategies.

The remainder of the paper is structured as follows. Section 3.2 explains the theoretical framework and the research hypotheses. Section 3.3 illustrates the data and methodology implemented. Section 3.4 discusses the empirical results. Finally, Section 3.5 presents the summary and conclusion.

3.2 Literature review

3.2.1 Theoretical framework

This study examines the impact of CEO myopia on both environmental and social performance from the perspective of the upper-echelon theory and stakeholder theory. Additionally, it extends the work by applying agency theory to investigate how long-term incentives may

moderate the impact of the previous relationships. The upper-echelon theory suggests that organisational strategic outcomes reflect the personalities, values, and cognitive bases of top management (Hambrick, 2007; Hambrick & Mason, 1984). Recent studies (e.g., Oh et al., 2016; Oppen & Burt, 2021) have illustrated the significant impact of CEOs' personal attributes in formulating firms' strategic plans and sustainable activities. From an upper-echelon perspective, managers' practices will reflect their values and influence their managerial decisions when their interests align with the firm's long-term value (Hu et al., 2024). CEO myopia is defined as a relatively stable behavioural disposition exhibited by executives, with variations evident among individuals (Czakon et al., 2023). From this perspective, some literature has employed CEOs' age (e.g., Oh et al., 2016) or tenure (e.g., Chen et al., 2019) as proxies for managerial myopia and examined whether the career horizon matters for sustainability performance. This study combines the two previous characteristics (both age and tenure) and illustrates how these observable characteristics may influence top managers' time orientation and career horizon, thereby impacting firms' sustainable strategies. Therefore, from the upper-echelon view, CEO myopic behaviour can be viewed as a personal trait that impacts a firm's strategic decision-making, such as sustainability performance. CEOs with short-term horizons tend to focus on immediate profits, which may have a potential impact on the overall long-term performance (Slawinski & Bansal, 2015). Conversely, CEOs with a long-term focus recognise the importance of investing in sustainable initiatives that improve firms' long-term economic viability, environmental accomplishment, and social responsibility (Wang & Chugh, 2014). In addition, the significant impact of top managers on companies' strategic decisions or resource allocation is extensively emphasised from the upper-echelon view (Lai et al., 2020). Since sustainability requires investments that need a longer time period, which may adversely affect firms' current earnings (Mbanyele et al., 2023), sustainable activities may experience underinvestment if the CEO's decision horizon is short or limited. From a complementary perspective, according to Pitelis (2007), the upper-echelon view is founded on the concept of bounded rationality, which illustrates that the cognitive biases of top managers lead to deviations from rational strategic decisions. This concept acknowledges that executives' ability to process information is limited, leading them to prioritise information based on their biases, preferences and experiences (Cho & Hambrick, 2006). From this view, CEOs with myopic behaviour have the tendency to focus on short-term benefits based on their preferences or limited information. Consequently, this behaviour can be detrimental to firms' sustainability

performance in a way that results in a reduced decision-making horizon and underinvestment in sustainable strategies.

In addition, stakeholder theory offers a constructive view for examining how CEO myopia may affect firms' sustainability performance, particularly in environmental and social contexts. Initially introduced by Freeman (1984), it demonstrates that firms' success depends on their ability to meet and balance the expectations of various stakeholders (e.g., employees, customers, communities and the environment). Therefore, this theory concentrates on the interests of various groups compared to agency theory, which focuses solely on the conflict of interest between the principal and agent (Lu et al., 2022; Tauringana & Chithambo, 2015). Recently, stakeholder theory has been used frequently to explain a firm's long-term objectives and sustainability studies. In terms of managerial myopia, according to Galbreath (2017), managers who think myopically may prioritise immediate financial outcomes and neglect stakeholders, commitment that requires strategic investments and long-term planning. For example, Thomas et al. (2022) demonstrate that managerial short-termism contributes to increased environmental pollution, thereby exacerbating negative externalities. In addition, from the social perspective, Neubaum & Zahra (2006) argue that social investments (e.g., strengthening community relations, offering a safe workplace) may not generate immediate financial gains. Therefore, myopic managers may consider these initiatives as non-essential investments, which can lead to damage to stakeholder trust and affect a firm's long-term value.

Agency theory offers a useful lens for investigating how CEOs' long-term incentives impact the myopia-sustainability performance nexus. According to Lambert (2001), this theory provides a practical framework in the accounting literature as it facilitates the integration of conflicts of interest, incentive structures and tools for monitoring these mechanisms. This theory examines the relationship between principals and agents, emphasising the conflict and information asymmetry between the parties (Jensen & Meckling, 1976). The conflict arises when the principal (shareholders) and agent (CEOs) exhibit different objectives. Therefore, the latter may not usually act in the best interest of principals, which results in raising agency costs (Eisenhardt, 1989). Recent finance and management literature (e.g., Lee et al., 2018) indicates that misalignment between executives' time preferences and shareholders leads to time-based agency problems. CEOs with myopic behaviour are a common example of this principal-agent conflict. Although the company's owners prefer top managers to focus on strategic decisions that enhance long-term value creation, short-sighted behaviour leads CEOs to cut investments

in sustainability and focus on immediate earnings. This finding is consistent with the study of Graham et al. (2005), which showed that top managers neglect long-term value strategies and behave myopically to meet short-term targets. Consequently, to enhance the alignment between CEOs' interests and shareholder value, agency theorists argued that organisations could offer incentive structures that help link managers' interests with shareholder value, thereby encouraging the former to act in the best interest of both parties (Jensen & Meckling, 1976). Long-term incentives are proposed as an effective tool that is used to align the interests of managers with the firm's long-term value creation (Edmans et al., 2017). Therefore, if CEOs behave myopically, these incentives may lead to the adoption of long-term orientation, which supports CEOs in making investments that promote sustainability across the triple bottom line dimensions (Flammer & Bansal, 2017). Turedi & Erkan-Barlow (2022) support this argument and state that equity-based compensation has emerged as a potential governance mechanism that promotes long-term orientation by linking executives' wealth and compensation to firm performance or future performance targets.

Therefore, grounded in upper-echelon theory and stakeholder theory, short-termism may lead managers to neglect the needs of stakeholders in order to focus primarily on their own interests. According to upper-echelon theory, organisational (in our case, environmental and social) outcomes reflect top management's personality characteristics, as well as their time frame perspectives, in decision-making. Additionally, stakeholder theory provides a theoretical framework counterpoint to the myopia concept by addressing the importance of long-term sustainable development to multiple stakeholders in comparison to focusing on immediate short-term returns. Finally, regarding the moderating impact of long-term incentives, they are an effective tool in mitigating the adverse impact of CEO myopic behaviour on sustainability performance. From the perspective of agency theory, aligning managers' interests with the organisation's long-term goals encourages them to promote strategic decisions that improve the two dimensions (environmental and social) of firms' sustainability performance (Jiang et al., 2018).

3.2.2 Hypotheses development

3.2.2.1 Managerial myopia and environmental performance

The environmental performance dimension represents a critical part of competitive advantage, in which firms measure how well they manage their environmental impact (Bansal &

DesJardine, 2014). To improve this performance, companies require long-term investments to decrease their environmental impact and implement environmentally sustainable plans (Hopper, 2019). However, these investments in sustainable strategies represent monetary costs in the short run, whereas the advantages of participating in CSR strategies generally manifest over a longer period of time (Graafland, 2016; Neubaum & Zahra, 2006; Thomas et al., 2022). Therefore, from the lens of stakeholder theory, CEOs with myopic behaviour may prioritise immediate financial returns and neglect these investments that are important for long-term environmental sustainability. In addition, according to the upper-echelon theory, the attributes of CEOs (their temporal orientation) have a substantial effect on organisations' outcomes and strategies. Hence, CEOs with longer decision horizons are more inclined to prioritise long-term environmental activities. They realise that initiatives like investing in renewable energies or reducing emissions may require initial investments but yield considerable long-term benefits. In the European context, Graafland (2016) supports this argument and finds that companies with longer horizons significantly improve their environmental performance.

Empirical studies have reported that when managers behave myopically and focus solely on short-term profits, the likelihood of implementing long-term environmental strategies is affected. Both Han et al. (2022) and Hu et al. (2023) discover that analyst coverage pressures rectify short-termism by pushing managers with long-term thinking to promote sustainable investments. Others (e.g., Shin & Park, 2020) find that external or internal pressures may increase myopic behaviour with a significant negative correlation with the firm's environmental performance (green innovation). According to this view, the stakeholder theory emphasises the responsibility of CEOs to handle the expectations of different stakeholders (e.g., regulators, community) and to match corporate practices with environmental sustainability objectives. However, as the decision horizon shortens, CEOs tend to behave myopically and focus on short-term benefits rather than considering other stakeholders' horizons. Chen et al. (2019) support this argument and find that CEOs, in their early years, tend to have longer decision horizons, which significantly and positively affect firms' CSR performance. Accordingly, the first hypothesis for this study is formulated as:

Hypothesis 1: CEO myopia is associated with lower environmental sustainability performance

3.2.2.2 Managerial myopia and social performance

From the perspective of stakeholder theory, corporate social performance is conducive to the sustainability concept and is defined as the ability of managers to sustain growth over time to maintain a balance among the interests of different stakeholders (Neubaum & Zahra, 2006). However, investments in corporate social performance are classified as long-term strategies in the literature, which require some short-term opportunity costs (Fu et al., 2019; Lu et al., 2024). Consequently, managerial myopia may lead managers to behave myopically, focusing on short-term performance and neglecting any long-term strategies that enhance corporate social performance. Qian et al. (2023) rely on a quasi-natural experiment and find that capital market pressure shifts managers' focus to short-term profits at the cost of investing in employee workplace safety. Similarly, Oppen & Burt (2021) use a sample of 700 CEOs in China and find that working in closed networks exacerbates the short-sighted behaviour of managers associated with neglecting companies' long-term social activities.

Grounded in upper-echelon theory, both cognitive perspectives and personal traits (in our case, age and tenure) of CEOs significantly influence their decision-making process (Cho & Hambrick, 2006). Therefore, from the time orientation perspective, CEOs with longer decision horizons are more inclined to consider the enduring societal impacts of their choices, such as employee satisfaction, community welfare or corporate social responsibility, compared to CEOs with shorter decision horizons. Considering that investments in these social activities require high costs in the short run, they have long lead times (Hopper, 2019). Hence, corporate managers should prioritise achieving short-term profits while ensuring long-term sustainable social activities to strike a balance between short-term and long-term sustainable goals (Edmans, 2009; Yuan et al., 2023). However, it is frequently challenging for companies' managers not to think myopically due to internal or external pressure (e.g., Graham et al., 2005; Narayanan, 1985; Qian et al., 2019), leading to neglect of long-term sustainable activities. Empirically, Choi, Kim, & Lee (2020) investigate the relationship between CEOs' tenure and corporate social performance and find that CEOs in their last years significantly and negatively affect firms' social performance. In addition, based on a US-based sample, Oh et al. (2016) find that CEOs with shorter decision horizons (as they age) significantly and negatively affect firms' social performance. Therefore, based on the above theoretical arguments and empirical findings, the second hypothesis for this paper is structured as follows:

Hypothesis 2: CEO myopia is associated with lower social sustainability performance

3.2.2.3 The moderating role of CEO long-term incentives

CEO incentives can play a critical role in moderating the negative impact of myopia on both environmental and social performance. Edmans et al. (2017) claim that extending the time horizon over which managers are rewarded can affect their real decisions and mitigate the adverse impact on firms' strategic decisions. According to the upper-echelon theory, organisational outcomes are strongly influenced by executives' characteristics or values, where CEO myopia is a cognitive bias toward short-term thinking. This type of thinking creates a conflict of interest, as CEOs prioritise their self-interest and impair companies' interests in order to pursue personal benefits, leading to higher agency costs. From this basis, long-term incentives can interact with CEOs' personal values, as grounded in the upper-echelon view, leading to enhanced effectiveness in mitigating the effect of myopia (Wowak et al., 2017). Therefore, when CEOs consider that their compensation is linked to long-term goals, they pursue growth opportunities and invest in strategies that maximise firms' long-term environmental and social activities.

Second, from the view of agency theory, installing appropriate incentive schemes can reshape managers' cognitive orientations and encourage them to incorporate sustainable initiatives into their strategic decisions (Chin et al., 2013). Flammer & Bansal (2017) support this argument and find that the passage of long-term compensation proposals counteracts short-termism and has a significant and positive association with stakeholders' relationships. However, the usefulness of CEOs' incentives may be moderated by their commitment to sustainability principles. This indicates that these incentives alone could be inadequate unless they are aligned with managers' personal attributes, which is consistent with the upper-echelon theory (Slawinski et al., 2017). In addition, as per agency theory, it is important to align the interests of managers with shareholders' long-term view to mitigate CEOs' opportunistic behaviour that results in focusing on short-term profits (Han et al., 2022). Long-term incentives can be recognised as a tool that encourages managers to invest in projects that enhance firms' sustainability performance (Edmans et al., 2017). For example, Haque & Ntim (2020) illustrate that executive compensation (with long-term incentives) is positively associated with firms' environmental performance. However, Bebczuk et al. (2010) argue that these incentives should be appropriately structured to shift managers' thinking from a short-term to a long-term perspective effectively. In addition, consistent with agency theory, managers face a time-based agency problem where their time preferences are not aligned with the firm's shareholders

(Flammer et al., 2019). Consequently, long-term incentives reduce these agency costs, align the interests of the two parties and encourage long-term focus on environmental and/or social initiatives (Mizik, 2010).

Prior literature empirically documents the positive impact of long-term incentives on the myopia-sustainability relationship. According to Siegrist et al. (2020), adopting long-term incentive plans has a significant positive impact on reducing executives' short-term thinking, which leads them to adopt sustainable investments with longer time horizons. On the other hand, Turedi & Erkan-Barlow (2022) and Wang (2024) find that incentives like stock options increase the likelihood of managerial myopia, which has a negative impact on firms' sustainable activities. From a moderating perspective, the literature illustrates that long-term incentives play a positive moderating role in mitigating the relationship between myopia and real options investments (Lee et al., 2018) and supply chain concentration (Hu et al., 2024). In addition, Ding et al. (2024) find that incentives play an important governance role in reducing agency problems and mitigating managers' myopic behaviour toward CSR performance. Therefore, and consistent with the theoretical arguments and the above discussion, this study posits the third set of hypotheses as follows:

H3a: Long-term incentives have a significant positive moderating role between myopia and environmental performance

H3b: Long-term incentives have a significant positive moderating role between myopia and social performance

3.3 Data and methodology

3.3.1 Sample selection

The sample of this paper is based on data from S&P 1500 index-listed companies spanning the period from 2002 to 2022. Due to the availability of sustainability data, the initial year (2002) is selected as the London Stock Exchange Group “LSEG” database (previously known as Refinitiv and Asset4 Thomson Reuters) offers environmental and social data with historical data dating back to the beginning of this century when the concept of sustainability started to grow in the literature clearly (Khalid et al., 2015). In addition, according to Saboo et al. (2016), myopia and short-termism practices came to light at the beginning of the 2000s, when some laws started restricting artificial accounting techniques by enforcing stricter accounting

standards (e.g., the Sarbanes-Oxley Act). This paper constructs the sample using several databases. CEO information is extracted from the ExecuComp database, which includes data for companies in the S&P 1500 index, comprising the S&P 500, the S&P 400 mid-cap, and the S&P 600 small-cap indices. To calculate the key variable “CEO myopia”, this paper requires the sample firms to contain all data needed on CEO age and tenure. Regarding the selection of the S&P 1500, several factors influence the choice of U.S. firms from this index. Initially, the index covers nearly 90% of the market capitalisation of U.S. stocks (Przychodzen & Gómez-Bezares, 2021). Furthermore, the U.S. stock market represents the largest market in terms of total market capitalisation in the world, exceeding USD 50.8 trillion by the end of 2023. The data on environmental and social performance are collected from the LSEG database, which offers comprehensive data regarding companies’ environmental, social and governance variables (Haque & Ntim, 2018). Finally, all financial data is collected from the CompuStat database. Noticing that all variables specified in the empirical method must be present in these three databases. By the end, these procedures generate a final sample of 11,828 firm-year observations spanning the period from 2002 to 2022.

3.3.2 Dependent variable: environmental and social performance

This study aims to quantitatively measure the two dependent variables (environmental and social performance). Consistent with previous literature (e.g., Bourveau, Brochet, & Garel, 2022; Dyck et al., 2019), this paper measures the level of environmental and social performance using scores gathered from the LSEG database (previously known as Refinitiv or Asset4 Thomson Reuters), which contains comprehensive global data regarding companies’ environmental, social and governance variables (Haque & Ntim, 2018). The environmental performance dimension evaluates the influence that the firm has on natural systems (whether living or non-living), including land, water, air, and entire ecosystems. It is consistent with the company’s successful application of best management practices to mitigate environmental risks and benefit from environmental opportunities to increase long-term shareholder value (Biswas et al., 2018). The environmental performance score offered by the LSEG database covers three categories: resource use, emissions, and innovation. The score of environmental performance is determined by assigning a specific value based on the weight of each dimension, where the overall score is represented as a percentage between 0% to 100%. Noticing that a score of 0% indicates a low environmental performance, while a score of 100% represents an outstanding environmental performance within this range (LSEG, 2023). In a similar vein, the social

performance score is gathered from the LSEG database, which evaluates the firm's ability to establish loyalty and trust with its employees, customers, and society by implementing optimal management strategies (Shaukat et al., 2016). The social performance score consists of four dimensions: community, human rights, product responsibility and workforce. The evaluation of social performance is determined by the combined weights of sub-dimensions within each category, where the overall score is represented as a percentage between 0% to 100%. Like the environmental score, a score of 0% indicates a low social performance, while a score of 100% represents an outstanding social performance within this range (LSEG, 2023).¹⁵

3.3.3 Independent variable: CEO myopia

Previous literature examining issues related to CEO decision horizon (as proxies for managerial myopia) has employed numerous measures derived from the CEO's age or closeness to retirement (e.g., Abernethy et al., 2019; Liu & Liu, 2020; Matta & Beamish, 2008). In the decision-making process, CEO age is correlated with time horizon conflict, where the ageing of top managers can lead to myopic behaviour that can hinder the ability to maximise firms' long-term value (Oh et al., 2016). In addition, CEO tenure is quantified by the duration (typically measured in years) of a CEO's experience in the position and is a critical element in determining the decision horizon issue (Antia et al., 2021). For example, Matta & Beamish (2008) illustrate that as CEOs approach retirement, their career horizon becomes shorter, leading to an effect on their companies' strategies. In the context of sustainability, both Chen et al. (2019) and Choi, Kim, & Lee (2020) find that the CSR strategy of companies is significantly higher during the initial period of a CEO's tenure compared to the latter phases of their tenure.

Based on the previous insights, this study employs a dual-dimension proxy, in contrast to earlier studies that focus on a single attribute, providing a more detailed approach that captures both motivational and experiential elements of CEO myopia. This is rooted in the view of upper echelon, which suggests that executives' cognitive orientations (shaped by their expected tenure) affect their strategic decision-making (Hambrick & Mason, 1984). Building on the

¹⁵ In detail, the environmental pillar is calculated based on the following themes (emissions, waste, biodiversity, management systems, product innovation, green revenues, water, energy, sustainable packaging and environmental supply chain). In contrast, the social pillar is calculated based on the following themes (community, human rights, responsible marketing, product quality, data privacy, diversity, career development, career training, working conditions and health & safety) (LSEG, 2023).

work of Antia et al. (2010), and following Jain et al. (2016) and Lee et al. (2018), this paper measures the CEO's myopia as a combination of their age and tenure relative to the industry median. According to Antia et al. (2010), CEOs anticipate having a longer tenure when they are younger or newer to the role than their peers in similar companies. Therefore, this paper uses CEOs' expected tenure relative to the industry standard to indicate managerial myopia that reflects the actual decision horizon. The use of industry-adjusted measures is more effective than standard decision horizon measures proposed in previous literature (e.g., Choi, Kim, & Lee, 2020; Matta & Beamish, 2008) because it considers the industry's influence on CEOs' age and tenure. For example, high-tech industries, in comparison to mature industries, generally involve companies led by young CEOs or management teams. In addition, specific industries may experience a substantially high rate of turnover among senior executives. This is consistent with the view of academics and practitioners (e.g., Hambrick et al., 1993; Lucier et al., 2002) who support the argument that CEOs' myopic behaviour may vary significantly across industries. Consequently, the CEO myopia measure examines their position in relation to other CEOs in the industry based on two factors: the length of their current tenure and their age. Thus, the CEO myopia variable is defined as:

$$CEO\ Myopia_{i,t} = (CEO\ TENURE_{i,t} - CEO\ TENURE_{ind,t}) + (CEO\ AGE_{i,t} - CEO\ AGE_{ind,t})$$

where $CEO\ TENURE_{i,t}$ represents the number of years the CEO has held this position and $CEO\ AGE_{i,t}$ represents the age of the CEO who works for firm i in year t . $CEO\ TENURE_{ind,t}$ represents the industry median of CEO tenure and $CEO\ AGE_{ind,t}$ represents the industry median age of CEOs.

Since the myopia measure is industry-adjusted, it is important to recognise that this measure can have either a positive or negative value. A positive value indicates that the CEO is older and/or has spent a longer period in the current position than the median peer in the same industry, which implies a shorter expected tenure. Thus, it will lead to a shorter decision horizon. Conversely, a negative value indicates that the CEO is younger and/or has remained in position for a shorter time compared to the median CEO of competitor firms, which implies a longer expected tenure. Thus, it will lead to a longer decision horizon. Noticing that a higher value of myopia variable is associated with more myopic behaviour and a shorter career horizon.

3.3.4 Moderating variable: Long-term incentives

Previous literature has examined the pay relative to the performance of equity-based incentives and their impact on firms' long-term value (e.g., Edmans et al., 2017; Zeng et al., 2023). Generally, providing CEOs with long-term incentives can align their interests with the firm's overall value (Hu et al., 2024). According to Wu et al. (2022), including performance-vesting and time-vesting conditions in compensation schemes leads managers to expand their decision-making and facilitate long-term orientation. Recently, performance shares are long-term incentives, equity-based and are becoming an essential component of managers' compensation (Holden & Kim, 2017). They vest after achieving specific performance targets over a fixed time period. Therefore, they directly align CEOs' rewards with firms' strategic objectives (Hodak, 2019). In addition, stock options counteract CEOs' myopic behaviour and encourage strategic decisions (Alessandri et al., 2018). Therefore, and following Angelis & Grinstein (2015), Lee et al. (2018) and Van Wyk & Wesson (2021), CEO long-term incentives are approximated by the value of performance shares and stock options awarded to CEOs, scaled by total compensation as reported in ExecuComp.

3.3.5 Control variables

This paper incorporates three sets of control variables to enhance the validity of the model and avoid any model misspecification. The first set is related to firm-level characteristics (obtained from both CompuStat and LSEG databases). The second set is related to executive-level characteristics (obtained from the ExecuComp database). The third set is related to board-level characteristics (obtained from the LSEG database). In detail, firm-level control variables include firm size, firm age, leverage, return on assets (ROA), capital intensity, profitability, and capital expenditure. Consistent with Abang'a et al. (2022) and Tingbani et al. (2020), this study controls for firm size because larger firms, due to resource availability, may improve sustainability performance compared to smaller firms. In addition, following Abang'a et al. (2022) and Thomas et al. (2022), firm age is incorporated because older firms are more well-developed and become more aware of sustainable activities (Withisuphakorn & Jiraporn, 2016). Leverage ratio is also included as it may have an impact on firms' sustainability performance (Haque & Ntim, 2018; Lu et al., 2024). Consistent with Cao et al. (2023), Haque & Ntim (2018) and Kordsachia et al. (2022), this paper also controlled for different financial ratios (ROA, profitability, and capital intensity) to account for differences in operational

efficiency and financial health. Finally, following Haque & Ntim (2018) and Tanthanongsakkun et al. (2022), this study controls for a firm's capital expenditure.

For executive-level characteristics, this study controls for CEO ownership as it has an impact on CSR performance (Chen et al., 2019; Hussain et al., 2023). In addition, following Chu et al. (2023) and Han et al. (2019), the study controls for CEO gender as it is considered to influence firms' sustainability performance significantly. Consistent with Fan et al. (2024), this study controls for CEO duality to account for the chairman's role in developing strategic decisions. Finally, following Tauringana & Chithambo (2015) and Konadu et al. (2021), this study controls for board size, the proportion of independent directors and the existence of a sustainability committee as these governance variables have been widely explored in sustainability literature.

3.3.6 Empirical models

This paper uses multiple regression models to investigate the impact of CEO myopia on environmental and social performance. In addition, it uses long-term incentives to examine the moderating effect of this variable on the previous relationship. The dependent variables are the environmental and social performance, and the main independent variable of interest is CEO myopia. The moderating variable is long-term incentives. The control variables include three sets of firm-level, executive-level and board-level characteristics. In addition, this paper includes industry and year-fixed effects by using dummy variables to account for unobserved heterogeneity specific to different years and industries. To address any potential autocorrelation and heteroscedasticity, robust standard errors were utilised. Therefore, the study estimates the following regression models:

$$\begin{aligned} Env_{i,t} \text{ or } Soc_{i,t} = & \alpha + \beta_1 Myopia + \beta_2 Size + \beta_3 Age + \beta_4 Lvg + \beta_5 ROA + \beta_6 Cap_{Int} + \beta_7 Prof + \beta_8 Capx \\ & + \beta_9 Ownership + \beta_{10} Gender + \beta_{11} Dual + \beta_{12} BS + \beta_{13} ID + \beta_{14} SC + Year_{FE} \\ & + Industry_{FE} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

$$\begin{aligned} Env_{i,t} \text{ or } Soc_{i,t} = & \alpha + \beta_1 Myopia + \beta_2 LTI + \beta_3 (Myopia \times LTI) + \beta_4 Size + \beta_5 Age + \beta_6 Lvg + \beta_7 ROA \\ & + \beta_8 Cap_{Int} + \beta_9 Prof + \beta_{10} Capx + \beta_{11} Ownership + \beta_{12} Gender + \beta_{13} Dual + \beta_{14} BS \\ & + \beta_{15} ID + \beta_{16} SC + Year_{FE} + Industry_{FE} + \varepsilon_{i,t} \end{aligned} \quad (2)$$

The following table illustrates the dependent, independent, moderating and control variables implemented in this study.

[TABLE 3.1 ABOUT HERE]

Following the four hypotheses, the paper expects a significantly negative coefficient on *Myopia* to support the first two hypotheses that CEO myopia is negatively associated with environmental and social performance. In addition, it expects the long-term incentives to positively moderate the previous relationships concerning the third and fourth hypotheses.

3.4 Results and discussion

3.4.1 Descriptive statistics

Tables 3.2 and 3.3 provide the sample distribution by year and industry. Overall, there is an increasing trend in sample size, which reflects the increased number of companies covered by the LSEG database.

[TABLE 3.2 ABOUT HERE]

[TABLE 3.3 ABOUT HERE]

Table 3.4 presents descriptive statistics for the main variables used in the empirical study, comprising 11,828 observations. The first dependent variable (environmental performance) scores exhibit significant variations, with a mean of 34.63 and a standard deviation of 28.36, indicating varying environmental impacts and practices among firms, whose scores range from 0 to 91.37. The mean of 48.1 and the standard deviation of 21.44 for the social performance indicate notable variation in how firms handle their societal responsibilities. The main independent variable (CEO myopia) values range from -20 to 43 years with a standard deviation of 11.75. A positive average value (mean = 2.4) indicates that CEOs have shorter expected tenure than the median, which may signal higher short-term strategic perspectives among firms' managers. Regarding control variables, both firm size (with a mean of 8.7 and standard deviation of 1.54) and firm age (with a mean of 34 and standard deviation of 27.62) indicate the presence of both emerging and established firms across diverse industries. Financially, the average leverage ratio (0.6) and average ROA (0.054) suggest diverse financial health, operational effectiveness, conservative capital expenditure, and profitability indicators. The majority of firms' CEOs (almost 95%) are male, and 63% are also the firm's chairman. Finally, the means of the board-level characteristics variables are 2.27, 81.78, and 0.47, with standard deviations of 0.23, 10.76, and 0.5, respectively. Noticing that the descriptive statistics

on those variables generally aligned with previous literature (e.g., Antia et al., 2010; Lee et al., 2018; Thomas et al., 2022).

[TABLE 3.4 ABOUT HERE]

3.4.2 Correlation analysis

Table 3.5 represents the correlation matrix among all variables used in this study. As shown, the correlation coefficients indicate negative relationships between CEO myopia and environmental and social performance (-0.06 and -0.083), with a p-value of less than 1% significance, which supports the first two hypotheses. In addition, most of the variables used in the empirical models are significantly correlated with the two dependent variables. The correlation matrix illustrates that the highest correlation is 0.638 between the sustainability committee and environmental performance. However, it is still below the threat value (0.8 or 0.9) as suggested by Field (2013). Although no significant correlation is observed, some level of multicollinearity may still exist. For this reason, this paper applies the VIF test to detect any issues related to multicollinearity for all regression models. Table 3.6 illustrates that the results of this test indicate that all independent variables used in the four empirical models have VIF scores less than 10. This confirms that multicollinearity is less likely to affect the three models under study.

In addition, both Breusch-Pagan/Cook-Weisberg tests are performed to check for heteroscedasticity issues. The results show a significant test statistic with a low p-value (typically < 0.01) for the four models, suggesting heteroscedasticity issues. If this issue is not controlled, the results and drawn conclusions can become misleading and biased. To address the heteroscedasticity issue, according to Berry & Feldman (1985), various methods can be performed, including the use of robust standard errors and variable transformation. This study applies both methods by utilising the robust feature in STATA 18 and applying a logarithmic transformation to the following variables: firm size, capital intensity and board size. Therefore, the paper uses regression with year and industry-fixed effects and utilises robust standard errors to control for heteroscedasticity issues. Finally, to minimise the effect of outliers, all variables in the four models are winsorised at the 1st and the 99th percentiles.

[TABLE 3.5 ABOUT HERE]

[TABLE 3.6 ABOUT HERE]

3.4.3 Main results

Table 3.7 represents the baseline results for the relationship between CEO myopia and environmental performance (hypothesis 1) and social performance (hypothesis 2), along with the three control variable sets (firm-level characteristics, executive-level characteristics and board-level characteristics), with the inclusion of year and industry fixed effects. Columns 1 and 2 report the results with environmental performance as the dependent variable, and columns 3 and 4 report the results with social performance as the dependent variable. Specifically, columns 1 and 3 incorporate firm-level characteristics as control variables, while columns 2 and 4 incorporate all control variables (firm-level, executive-level and board-level characteristics). The R-squared for two-related models (47% and 59% for environmental and 40% and 50% for social) suggests that the proposed models explain (almost 47%, 59%, 40% and 50%) of the variance in environmental and social, respectively. In addition, the F-value for all models is significant (at the 1% level), suggesting that the models are generally well-specified.

Columns 1 and 2 indicate a significant negative association (at the 1% and the 5% level) between CEO myopia and environmental performance with ($\beta_1 = -0.099$ and $t\text{-statistic} = -5.947$) and ($\beta_1 = -0.035$ and $t\text{-statistic} = -2.209$) respectively, which supports the acceptance of hypothesis 1. This is consistent with (Chen et al., 2019; Graafland and Smid, 2015) and reflects the role of myopic CEOs in worsening and non-prioritising sustainable strategies. The pattern continues with columns 3 and 4 (with a significant negative association both at the 1% level), which is consistent with hypothesis 2. Both columns illustrate a significant negative relationship (with $\beta_1 = -0.136$, $t\text{-statistic} = -10.153$ for column 3 and $\beta_1 = -0.081$, $t\text{-statistic} = -6.323$ for column 4) between myopia and social performance score. This highlights the abilities of CEOs who have shorter decision horizons and myopic behaviour in negatively influencing firms' social responsibility (Oppen & Burt, 2021; Qian et al., 2023). A one-unit increase in myopia is associated with a decline of approximately 3.5% in the environmental score and 8.1% in the social score. These figures demonstrate that even moderate changes in CEOs' decision horizons can considerably affect firms' long-term strategies and their relationships with stakeholders. The findings above are consistent with the perspective of upper-echelon and stakeholder theory, which suggests that managers with myopic behaviour often fail to recognise the importance of environmentally and/or socially sustainable activities. CEOs, due to their short-term focus on profit maximisation, may reduce their investments in

sustainable activities that involve long payback periods with high risks in favour of short-term interests (Cannon et al., 2020; Mbanyele et al., 2023). The negative association between managerial myopia and environmental/social performance indicates that the tendency towards short-termism results in neglecting the environmental and social aspects, which may harm companies' sustainability performance in the long run. Simultaneously, according to the upper-echelon theory, the above results imply that the selection process of top management should consider not only their demographic characteristics but also their cognitive traits to develop managers with longer-term perspectives (Choi, Kim, & Lee, 2020).

[TABLE 3.7 ABOUT HERE]

Table 3.8 presents the results examining the moderating impact of long-term incentives on the relationship between CEO myopia and the two dimensions of sustainability performance. Columns 1 and 2 represent the moderating impact of these incentives on environmental and social performance, respectively. The two models display adequate explanatory power, with R-squared explaining almost 59% in environmental performance and 50% in social performance. The F-value is significant (at the 1% level), indicating that the three models are generally well-specified.

Columns 1 and 2 illustrate that CEO myopia has a significant and negative relationship with environmental and social performance, which acknowledges the adverse impact of myopic behaviour on firms' sustainability performance (Flammer & Bansal, 2017). In column 1, the coefficient for long-term incentives (with $\beta = 0.022$, t-statistic = 1.667) is significant and positive, indicating that higher incentives are associated with higher environmental performance at the 10% level, which supports the acceptance of H3a. Additionally, the interaction term between myopia and long-term incentives is significant and positive at the 1% level (with $\beta = 0.06$, t-statistic = 5.229) for the social performance. Therefore, these results support the acceptance of H3b. These results echo the view of upper-echelon theory, which posits that CEOs' cognitive biases, such as myopia, play a significant role in shaping firms' strategic outcomes. In addition, long-term incentives play a significant moderating role in mitigating CEOs' myopic behaviour. Fundamentally, the conclusion that managerial myopia adversely affects firms' sustainability performance reflects the inherent traditional managerial agency conflicts (Ding et al., 2024). Therefore, long-term incentives help alleviate principal-agent problems and align CEOs' interests with firms' long-term environmental and social strategies by mitigating the influence of myopia on sustainability performance.

[TABLE 3.8 ABOUT HERE]

In general, the study echoes prior studies that show that corporate governance mechanisms have a substantial impact in mitigating CEOs' myopic behaviour related to short-term performance (Ding et al., 2024; Lee et al., 2018). By synthesising the agency theory and the upper-echelon perspective, the results explore how long-term incentives act in the interplay between managerial myopia and these two dimensions of sustainability performance.

3.4.4 Robustness tests

3.4.4.1 Endogeneity

This study recognises the fact that certain statistical limitations may exist in the investigation. One of these limitations is the issue of endogeneity, which arises from the omission of variables and may lead to an incomplete picture for the analysis. Although this study includes firm-level, executive-level and board-level characteristics as control variables, it is important to point out that the results may still experience the detrimental impact of unobservable variables, resulting in endogenous bias (Cao et al., 2023). To alleviate this bias, the use of two-stage Least Squares (2SLS) regression analysis and forward-lagged variables is performed.

3.4.4.1.1 Endogeneity examination with Two-stage Least Squares (2SLS) regression

This paper has demonstrated that CEO myopia deteriorates a firm's environmental and social performance. However, the relation between CEO myopia and these two dimensions of performance could be endogenous. It is possible that firms with superior environmental or social performance are better at searching for CEOs with longer decision horizons (less myopic) regarding expected tenure. In addition, there may be some other variables that could be associated with CEO myopia; therefore, relying on OLS regression could lead to biased regression coefficients. Consistent with the argument of Adams & Ferreira (2009), this paper performs a 2SLS regression to estimate the coefficients in order to reduce the potential endogeneity issue.

First, the Durbin-Wu-Hausman test is performed to test for endogeneity. Both the chi-squared (χ^2) and the F-statistics are associated with a significant p-value at the 1% level. This indicates that the CEO myopia is an endogenous variable and justifies using the instrumental 2SLS regression method, as OLS regression may provide inconsistent and biased estimates. Table

3.9 illustrates the results from performing the 2SLS regression, whereas column 1 illustrates the first-step regression. The first-stage regression contains an instrumental variable, for this paper, *employment opportunity*, that is related to the endogenous variable (CEO myopia) but not correlated with the error term. Following Antia et al. (2010) & (2021), this paper uses *employment opportunity*, which is computed as the proportion of other CEOs who receive higher pay than the CEO within the same industry, as the instrumental variable (IV). According to Aktas et al. (2021), these may mitigate myopic behaviour and lead to longer decision horizons that may affect corporate policies. In general, the job market environment can be correlated with the CEO's decision horizon in a way that affects long-term strategies. Therefore, the use of the *employment opportunity* variable serves as a proxy for the presence of better employment prospects in the industry, which is expected to impact CEOs' myopic behaviour. With more employment opportunities in the market, CEOs are less likely to exhibit a myopic action on firms' sustainable strategies to improve their competitiveness or individual reputations and enhance future external employment opportunities.

[TABLE 3.9 ABOUT HERE]

Column 1 illustrates that the instrumental variable (*employment Opportunity*) has a strongly significant (at the 1% level) and negative correlation with the myopia variable. This is consistent with the previous explanation of how employment opportunities affect CEOs' myopic behaviour, where they become less myopic when employment prospects exist. To examine the validity of the instrumental variable, the Kleibergen-Paaprk Wald F-statistic = 18.18 with a p-value < 0.000, which is higher than the Stock-Yogo ID test value of 16.38. According to Stock et al. (2002), the value is above the threshold of 10, which indicates that the instrumental variable is a strong instrument and reliable for the second stage. The predicted value of myopia from the first-step regression is used in the second step as the independent variable. Columns 2 and 3 show that the predicted myopia remains negative and statistically significant with environmental and social performance. This confirms the main results, which are that firms' environmental and social performance is diminished in the presence of managerial myopia.

3.4.4.1.2 Endogeneity examination related to reverse causality

Following Antia et al. (2010), this study acknowledges the issue of endogeneity that may occur from simultaneity or reverse causality. For this reason, this study re-estimates the regression models using forward-lagged dependent variables. Specifically, "t+1, t+2 and t+3" are created

to reflect a longer-term horizon. This method improves causal inference by ensuring that CEO myopia is related to future environmental and social outcomes. After running these models with the lagged variables, the results are robust and consistent with those of the baseline models, confirming the detrimental impact of myopia on environmental and social performance over time. Table 3.10 illustrates the results after using the forward-lagged dependent variables.

[TABLE 3.10 ABOUT HERE]

3.4.4.2 Alternative measures

In this section, the paper conducts additional robustness checks and uses alternative measures for the myopia proxy and the environmental and social performance to ensure the consistency of the results. First, and following Li et al. (2021), the CEO myopia variable is constructed using the industry average values rather than the industry median values when modifying for CEO tenure and age. Table 3.11 illustrates that the estimated coefficient on the myopia-average variable is significantly negative in the environmental and social dimensions. Thus, this test shows that the main results are robust and hold.

[TABLE 3.11 ABOUT HERE]

Second, consistent with Lee et al. (2018), another test is performed by separating the main CEO myopia variable into age and tenure. Using only industry-adjusted age or industry-adjusted tenure separately can help to identify if one of the factors matters more in deciding the myopic level of CEOs. For this reason, two variables are used to distinguish the impact of CEO myopia. *AdjTenure* is the industry-adjusted expected years CEOs will remain in position and is calculated as the difference between $CEO\ TENURE_{i,t}$ and $CEO\ TENURE_{ind,t}$. *AdjAge* is the industry-adjusted expected period based on CEO age and is calculated as the difference between $CEO\ AGE_{i,t}$ and $CEO\ AGE_{ind,t}$. Table 3.12 illustrates the findings where columns 1 and 2 show the impact of *AdjAge* and columns 3 and 4 show the impact of *AdjTenure*, respectively. The results for the *AdjAge* support the main analysis and show significant negative relations (at the 10% level) for the environmental performance and (at the 1% level) for the social performance. The pattern continues for the *AdjTenure* results, which show significant negative relations (at the 10% level) for the environmental performance and (at the 1% level) for the social performance.

[TABLE 3.12 ABOUT HERE]

Third, following Antia et al. (2021), an alternative measure for myopia is constructed that employs a binary variable. Values greater than zero indicate myopic CEOs, and values less than or equal to zero indicate non-myopic CEOs. Table 3.13 illustrates the results, which confirm the main findings.

[TABLE 3.13 ABOUT HERE]

Following Ma and Tao (2023) and Treepongkaruna et al. (2024), two alternative measures are used for the environmental and social performance. Specifically, as shown in Table 3.14, the emission reduction percentage is used to proxy firms' environmental performance, and the result is still robust. In addition, myopia is positively associated with ESG controversies, which indicate that CEOs with myopic behaviour are more likely to expose their firms to social and reputational risks.

[TABLE 3.14 ABOUT HERE]

Finally, the paper re-estimates the models after excluding financial firms. Table 3.15 illustrates that the results are still robust, confirming CEO myopia's negative impact on environmental and social performance regardless of financial sector dynamics.

[TABLE 3.15 ABOUT HERE]

3.4.5 Further analysis: Does a firm's size matter?

The impact of CEO myopia on firms' environmental and social performance has been extensively discussed in the literature, suggesting that CEOs with myopic behaviour may affect their ability to engage in strategic long-term activities (Flammer & Bansal, 2017; Hambrick & Mason, 1984; Laverty, 2004). In addition to stakeholder theory, the resource-based view is widely accepted in the myopia-sustainability nexus literature (e.g., Graafland, 2016; Siegrist et al., 2020). This theory suggests that firms possess resources, whether tangible or intangible, to develop competitive and sustainable advantages (Fahy, 2000). Therefore, engaging in sustainable activities requires the development of new capabilities and resources that lead to improved relationships with stakeholders and the overall firm's reputation (Siegrist et al., 2020). However, the capacity to engage in these activities may differ between small and large firms due to disparities in strategic flexibility and resource availability (Barney, 1991). In the context of the CEO decision horizon, Permatasari & Gunawan (2023) illustrate that smaller firms typically have fewer capabilities and resources to allocate towards sustainable strategies,

which may shift their abilities towards short-term plans due to limited resources. In addition, Hussain et al. (2018) indicate that smaller firms tend to have weaker corporate governance mechanisms due to their limited resources. On the other hand, larger firms typically have greater capabilities and resources to allocate towards sustainable strategies, which may reduce their ability to focus on short-term plans due to limited resources (Permatasari & Gunawan, 2023; Singh & Rahman, 2021). Table 3.16 shows the results after constructing the sample based on firms' size. Environmentally, there is no significant association between CEO myopia and the environmental performance of big firms; however, a significant negative relation (with $\beta_1 = -0.101$ and $t\text{-statistic} = -3.286$) exists for small firms. This finding supports the argument that the availability of resources for larger companies leads CEOs to utilise their strategic abilities to improve firms' environmental performance (Barney, 1991). In addition, the insignificant impact of big firms is consistent with the hypothesis of the resource-based view, where those firms have more resources and an established sustainability structure that supports environmental initiatives (Akhtar et al., 2024). Socially, both big and small firms exhibit a significant and negative relation, with $\beta_1 = -0.036$ & $t\text{-statistic} = -1.691$ and $\beta_1 = -0.130$ & $t\text{-statistic} = -5.379$, respectively. However, the impact is more substantial for smaller firms (significant at the 1% level) with a higher coefficient than for big firms (significant at the 10% level). This is consistent with the view of stakeholder theory, which suggests that non-myopic CEOs can significantly enhance the social initiatives of larger firms, as they have broader stakeholder networks (Parmar et al., 2010).

[TABLE 3.16 ABOUT HERE]

3.5 Summary and conclusion

This study demonstrates how CEO myopia affects two key dimensions of corporate sustainability: environmental and social performance, and whether long-term incentives serve as a corporate governance tool to mitigate the effects of this myopic behaviour on long-term decision-making. In conjunction with the upper-echelon view and stakeholder theory, the paper uses a sample from the S&P 1500 spanning the years 2002 to 2022. The results indicate that CEO myopia significantly and negatively impacts firms' environmental and social performance. When CEOs' decision horizon becomes shorter with age and tenure, they are likely to exhibit myopic behaviour that impacts firms' environmental and social performance. The analysis further reveals that long-term incentives effectively reduce CEOs' myopic

behaviour towards the two dimensions. To ensure the robustness of these findings, the study performs 2SLS regression to estimate the coefficients to reduce the potential endogeneity issue. Furthermore, it uses forward-lagged sustainability performance measures to allow for consideration of the time required for strategic decisions to result in observable outcomes. In addition, the study uses alternative measures for the myopia proxy and the environmental and social performance measures to ensure the consistency of the results.

This paper contributes to the existing literature from the perspective of managerial behaviour, sustainability and corporate governance. It extends the literature on upper-echelon theory and stakeholder theory by investigating how CEOs' expected tenure (measured using the industry-adjusted proxy by Antia et al., 2010) affects firms' environmental and social performance. Previous literature focused on age only (e.g., Oh et al., 2016) or tenure only (e.g., Choi, Kim and Lee, 2020). Therefore, and following Antia et al. (2010), Jain et al. (2016) and Lee et al. (2018), this is the first paper that uses a combination of CEOs' age and tenure as a proxy for managerial myopia in the sustainability context. In addition to examining the direct impact, the paper investigates whether governance mechanisms (in our case: long-term incentives) moderate this relationship from the lens of agency theory, which is frequently given less attention in earlier studies.

Exploring the elements that influence firms' sustainable development practices is a significant topic of interest for academic and practical circles. Theoretically, this paper links upper-echelon, stakeholder, and agency perspectives to explain the relationship between executives and sustainability dynamics. Practically, it presents valuable insights and implications for strategic planning and corporate governance. First, corporations should pay attention not only to managers' demographic characteristics but also to their time orientation perspective and design specific training programs to develop managers with longer-term perspectives. Second, companies should align executives' compensation structures with objectives that promote sustainable activities. This can be attained by introducing incentives tied to achieving specific long-term goals or targets that illustrate companies' commitments to the two dimensions of sustainability. In addition, policymakers can initiate policies that may encourage corporate managers to evaluate their strategic objectives and plans towards achieving sustainable goals. Finally, the board of directors can set policies, establish specific committees (e.g., sustainability committees), and promote consistent sustainability performance evaluation. For example,

policymakers can consider that establishing a sustainability committee is a mandatory requirement for firms to enhance sustainable activities within corporate governance.

Nevertheless, this paper is subject to certain common limitations. First, the study relies mainly on secondary data as the only source to obtain the required information (Abang'a et al., 2022). Therefore, applying some specific methodologies (e.g., questionnaires, interviews) with companies' CEOs may provide an in-depth explanation and more control over the quality of the data, which can address the specific questions regarding the relationship between managerial myopia and environmental and social performance. Second, and due to the availability of the data, this paper conducts the analysis based on a sample of U.S firms. To better generalise the findings, future studies can be conducted on different economies, which may have different regulations and accounting standards. For example, developing countries present relatively weaker legal protection and corporate governance mechanisms compared to developed countries, which may influence firms' stakeholders to have different expectations regarding sustainability activities (Katmon et al., 2019). Therefore, globalising the sample can lead to more accurate generalisations and a better understanding of the institutional attributes that may influence CEOs' myopia. Third, this study utilises distinct proxies to measure myopia and the two dimensions of sustainability performance. According to Souder & Bromiley (2012), the concept of myopia has proven challenging to measure empirically. This study relies on observable attributes of CEOs (age and tenure) to capture their myopic behaviour and decision horizon. Future studies may enhance the research by implementing different methodologies, such as interviews or field surveys, enabling scholars to collect in-depth insights into managers' cognitions. In addition, different proxies may be implemented to measure the environmental and social performance. Finally, considering the effect of other factors may enrich the understanding of the myopia-sustainability nexus. For example, examining the role of the board of directors may enhance the understanding of this relationship as the board has a significant impact on the firm's strategic decisions, which may lead to shaping its sustainability activities. Another factor to be considered is CEOs' reaction to long-term strategies in times of economic uncertainty (e.g., financial crisis, COVID-19 pandemic) or political instability (e.g., the Russian-Ukrainian war). This can lead CEOs to shift their focus from long-term activities to short-term survival, which may alter the dynamics between managers' decision horizons and long-term environmental or social strategies.

List of Tables

Table 3.1 Definition of variables

Variable	Symbol	Definition	References	Database
Dependent variables				
Environmental sustainable performance	Env	The measurement of various dimensions of resource utilisation, emissions, and innovation (from 0 to 100)	Thomas et al., (2022) Orazalin, (2020)	LSEG (p.k.a Refinitiv)
Social sustainable performance	Soc	The measurement of various dimensions of the human rights, workforce, community, and product responsibility (from 0 to 100)	Thomas et al., (2022) Orazalin, (2020)	LSEG (p.k.a Refinitiv)
Independent variable				
CEO myopia	Myopia	The sum of deviations in CEO age and tenure from the industry median (higher values indicate shorter expected tenure and more myopic behaviour)	Antia et al., (2010) Lee et al., (2018) Antia et al., (2021)	ExecuComp
Moderating variable				
Long-term incentives	LTI	The value of performance shares and stock options awarded to CEOs scaled by total compensation	Angelis & Grinstein (2015) Van Wyk & Wesson (2021)	ExecuComp
Control variables				
<u>Firm-level</u>				
Firm age	Age	Number of years since incorporation	Thomas et al., (2022) Abang'a et al., (2022)	LSEG (p.k.a Refinitiv)
Firm size	Size	Natural logarithm of total assets	Abang'a et al., (2022) Tingbani et al., (2020)	CompuStat
Leverage	Lvg	Total liabilities divided by total assets	Lu et al., (2024) Haque & Ntim, (2018)	CompuStat
Return on Assets	ROA	Net income divided by total assets	Cao et al., (2023) Kordsachia et al., (2022)	CompuStat
Capital intensity	Cap_int	Natural logarithm of total assets divided by total sales	Haque & Ntim, (2018) Oh et al., (2016)	CompuStat
Profitability	Prof	Earnings before interest and taxes divided by total sales	Tanhanongsakkun et al., (2022) Haque & Ntim, (2018)	CompuStat
Capital expenditure	Capx	Capital expenditure divided by total assets	Tanhanongsakkun et al., (2022) Haque & Ntim, (2018)	CompuStat
<u>Executive-level</u>				
Percentage of ownership	Ownership	Shares held by CEO divided by total shares outstanding	Hussain et al., (2023) Chen et al., (2019)	ExecuComp
CEO-gender	Gender	Dummy variable equal 1 if male and 0 otherwise	Chu et al., (2023) Han et al., (2019)	ExecuComp
CEO-duality	Dual	Dummy variable equal 1 if the chairman is also the CEO and 0 otherwise	Fan et al., (2024) Oh et al., (2016)	ExecuComp
<u>Board-level</u>				
Board size	BS	Natural logarithm of board size	Tauringana & Chithambo (2015)	LSEG (p.k.a Refinitiv)
Independent director %	ID	The percentage of independent board members	Tauringana & Chithambo (2015)	LSEG (p.k.a Refinitiv)
Sustainability committee	SC	Dummy variable equal 1 if the company has sustainability committee and 0 otherwise	Konadu et al., (2021)	LSEG (p.k.a Refinitiv)

Table 3.2 Distribution by year

Year	Freq.	Percent	Cum.
2002	42	0.36	0.36
2003	41	0.35	0.70
2004	45	0.38	1.08
2005	56	0.47	1.56
2006	7	0.06	1.61
2007	90	0.76	2.38
2008	140	1.18	3.56
2009	419	3.54	7.10
2010	525	4.44	11.54
2011	517	4.37	15.91
2012	524	4.43	20.34
2013	532	4.50	24.84
2014	535	4.52	29.36
2015	806	6.81	36.18
2016	1037	8.77	44.94
2017	1093	9.24	54.18
2018	1136	9.60	63.79
2019	1145	9.68	73.47
2020	1150	9.72	83.19
2021	1160	9.81	93.00
2022	828	7.00	100.00
Total	11828	100.00	

Table 3.3 Distribution by industry

Industry	Freq.	Percent	Cum.
Basic Materials	583	4.93	4.93
Consumer Discretion	2289	19.35	24.28
Consumer Staples	680	5.75	30.03
Energy	617	5.22	35.25
Financials	1341	11.34	46.58
Health Care	1224	10.35	56.93
Industrials	2380	20.12	77.05
Real Estate	614	5.19	82.25
Technology	1263	10.68	92.92
Telecommunications	244	2.06	94.99
Utilities	593	5.01	100.00
Total	11828	100.00	

Table 3.4 Descriptive statistics

Variables	Obs	Mean	Median	Std. Dev.	Min	Max
Environmental performance	11828	34.631	30.93	28.356	0	91.37
Social performance	11828	48.058	45.67	21.44	7.45	93.21
CEO myopia	11828	2.402	.5	11.754	-20	43
Long-term incentives	11637	.835	.593	1.247	0	48.5
Firm size	11828	8.707	8.632	1.542	4.351	12.828
Firm age	11828	34.006	25	27.628	1	116
leverage	11828	.602	.601	.222	.099	1.23
ROA	11828	.054	.049	.077	-.386	.274
Capital intensity	11828	1.084	1.05	.147	.844	1.629
Profitability	11828	.159	.137	.172	-.872	.633
Capital expenditure	11828	.068	.033	.109	0	.714
CEO ownership	11828	1.442	.234	4.382	.001	34.478
CEO gender	11828	.951	1	.215	0	1
CEO duality	11828	.635	8.814	.481	0	1
Board size	11828	2.274	2.303	.23	1.609	2.833
Per_indep	11828	81.779	84.62	10.764	38.46	93.75
Sust_committee	11828	.469	0	.499	0	1

Note: This table presents the descriptive statistics for each variable used in this study. The definition of each variable is reported in Table 3.1 (n = 11,828)

Table 3.5 Correlation analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Environmental	1.000										
(2) Social	0.738***	1.000									
(3) CEO myopia	-0.060***	-0.083***	1.000								
(4) LT incentives	0.112***	0.123***	-0.045***	1.000							
(5) Firm size	0.493***	0.418***	-0.027***	0.154***	1.000						
(6) Firm age	0.216***	0.178***	0.015**	0.050***	0.190***	1.000					
(7) Leverage	0.129***	0.117***	-0.071***	0.039***	0.455***	0.049***	1.000				
(8) ROA	0.043***	0.051***	0.048***	0.057***	0.015**	0.082***	-0.218***	1.000			
(9) Capital intensity	-0.104***	-0.067***	0.000	-0.037***	0.237***	-0.125***	0.278***	-0.306***	1.000		
(10) Profitability	0.016*	0.001	0.011*	-0.002	0.028***	0.011*	0.014**	0.055***	0.018***	1.000	
(11) Capital expenditure	0.025***	-0.064***	0.007	0.024***	0.083***	0.027***	-0.012*	-0.136***	0.144***	-0.077***	1.000
(12) CEO ownership	-0.151***	-0.159***	0.327***	-0.109***	-0.252***	-0.078***	-0.175***	0.039***	-0.113***	0.004	-0.005
(13) CEO gender	-0.050***	-0.060***	0.067***	-0.010	-0.020***	-0.024***	-0.006	-0.012*	0.014**	-0.003	-0.024***
(14) CEO duality	0.036***	0.015*	0.169***	-0.063***	0.131***	0.119***	0.041***	0.057***	-0.038***	0.021**	0.022***
(15) Board size	0.319***	0.273***	-0.059***	0.066***	0.575***	0.214***	0.306***	-0.032***	0.065***	0.017**	-0.015*
(16) Per_indep	0.264***	0.289***	-0.094***	0.120***	0.197***	0.157***	0.128***	-0.015*	0.037***	-0.006	0.024***
(17) Sust_committee	0.638***	0.556***	-0.072***	0.114***	0.354***	0.157***	0.105***	0.030***	-0.083***	0.013	0.070***

Variables	(12)	(13)	(14)	(15)	(16)	(17)
(1) Environmental						
(2) Social						
(3) CEO myopia						
(4) LT incentives						
(5) Firm size						
(6) Firm age						
(7) Leverage						
(8) ROA						
(9) Capital intensity						
(10) Profitability						
(11) Capital expenditure						
(12) CEO ownership	1.000					
(13) CEO gender	0.021***	1.000				
(14) CEO duality	0.132***	0.053***	1.000			
(15) Board size	-0.166***	0.011	0.107***	1.000		
(16) Per_indep	-0.234***	-0.034***	-0.078***	0.153***	1.000	
(17) Sust_committee	-0.145***	-0.038***	-0.024***	0.242***	0.233***	1.000

Note: The definition of each variable is reported in Table 3.1. *** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.6 Variance Inflation Factor (VIF)

	Direct models (1&2)		Interaction models (3&4)	
	VIF	1/VIF	VIF	1/VIF
Myopia	1.18	.844	1.60	.626
Size	2.15	.465	2.2	.454
Age	1.16	.863	1.16	.86
Leverage	1.45	.689	1.45	.687
ROA	1.28	.78	1.22	.821
Capital Int.	2.71	.369	2.82	.354
Profitability	1.04	.964	1.04	.965
Capx	1.78	.562	1.65	.606
Ownership	1.26	.793	1.27	.787
Gender	1.02	.976	1.02	.976
Duality	1.11	.899	1.11	.896
Board size	1.66	.603	1.66	.6
Per_indep	1.24	.803	1.21	.825
Sust_comm	1.55	.643	1.55	.646
LT incentives			1.06	.946
Myopia X LTI			1.38	.722
Mean VIF	1.47		1.46	

Table 3.7 Baseline results

VARIABLES	(1) ENV	(2) ENV	(3) SOC	(4) SOC
Myopia	-0.099*** (-5.947)	-0.035** (-2.209)	-0.136*** (-10.153)	-0.081*** (-6.323)
Size	11.748*** (86.380)	7.691*** (48.980)	7.969*** (70.600)	5.049*** (38.119)
Age	0.085*** (12.135)	0.056*** (9.131)	0.072*** (12.441)	0.046*** (8.667)
Lvg	-3.964*** (-3.795)	-4.695*** (-5.168)	-0.022 (-0.026)	-1.011 (-1.333)
ROA	6.243** (2.220)	3.665 (1.494)	6.774*** (2.824)	4.737** (2.189)
Cap_int	-36.360*** (-17.518)	-24.255*** (-13.557)	-27.322*** (-16.240)	-19.457*** (-12.940)
Profitability	-0.104 (-1.310)	-0.060 (-1.149)	-0.185** (-2.381)	-0.148** (-2.527)
Capx	-4.849** (-2.188)	-4.778** (-2.326)	-4.188** (-2.260)	-3.543** (-2.031)
Ownership		0.057 (1.494)		-0.018 (-0.532)
Gender		-3.405*** (-4.375)		-2.960*** (-4.967)
Duality		0.714* (1.949)		1.145*** (3.727)
Board size		4.721*** (5.168)		3.815*** (4.958)
Perc_indep		0.135*** (7.712)		0.204*** (14.521)
Sust_comm		23.608*** (51.179)		15.591*** (43.215)
Constant	-55.139*** (-16.161)	-49.282*** (-14.414)	-13.298*** (-4.871)	-13.924*** (-4.734)
Observations	11,828	11,828	11,828	11,828
R-squared	0.469	0.591	0.400	0.505
industry fe	yes	yes	yes	yes
year fe	yes	yes	yes	yes

Note: This table presents the baseline results. Column 1 examines the impact of myopia on environmental performance by incorporating firm-level characteristics as control variables. Column 2 examines the impact of myopia on environmental performance by incorporating all control variables. Column 3 examines the impact of myopia on social performance by incorporating firm-level characteristics as control variables. Column 4 examines the impact of myopia on social performance by incorporating all control variables. Robust t-statistics in parentheses. The definition of each variable is reported in Table 3.1. *** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.8 Baseline results for the moderating effect of long-term incentives

VARIABLES	(1) Env	(2) Soc
Myopia	-0.048*** (-2.668)	-0.164*** (-10.175)
LTI	-0.033 (-0.230)	0.255** (2.071)
Myopia X LTI	0.022* (1.667)	0.060*** (5.229)
size	7.805*** (49.202)	8.005*** (70.044)
age	0.056*** (9.067)	0.073*** (12.527)
leverage	-3.810*** (-4.175)	-0.027 (-0.033)
ROA	7.084*** (2.971)	16.871*** (5.718)
Capital intensity	-0.604*** (-12.321)	-23.018*** (-12.320)
Profitability	-0.170** (-2.445)	-8.607*** (-6.139)
Capx	-9.577*** (-4.762)	-5.042*** (-2.802)
Ownership	0.060 (1.574)	-0.100*** (-2.768)
Gender	-3.520*** (-4.477)	-3.205*** (-4.789)
Duality	0.968*** (2.626)	1.164*** (3.771)
Board size	5.009*** (5.460)	3.699*** (4.765)
Perc_indep	0.148*** (8.300)	0.206*** (14.416)
Sust_comm	23.575*** (50.870)	15.608*** (43.121)
Constant	-78.902*** (-17.254)	-14.514*** (-2.774)
Observations	11,637	11,637
R-squared	0.589	0.500
industry fe	yes	yes
year fe	yes	yes

Note: This table presents the baseline results for the moderating impact of long-term incentives. Column 1 examines the moderating impact of long-term incentives on the myopia-environmental performance relationship. Column 2 examines the moderating impact of long-term incentives on the myopia-social performance relationship. Robust t-statistics in parentheses. The definition of each variable is reported in Table 3.1. *** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.9 2SLS regression results

VARIABLES	First stage	Second stage	
		Env	Soc
Pred. myopia		-2.025*** (-6.336)	-1.938*** (-7.566)
Emp. Opp.	-1.642*** (-4.025)		
Size	0.412*** (4.061)	8.418*** (44.350)	5.710*** (35.502)
Age	0.021*** (6.409)	0.097*** (10.586)	0.086*** (11.375)
Lvg	-2.042*** (-3.664)	-8.265*** (-7.665)	-4.502*** (-5.092)
ROA	7.456*** (4.848)	18.870*** (5.377)	19.042*** (6.381)
Cap_int	0.145*** (4.436)	-14.159*** (-6.183)	-10.444*** (-5.335)
Profitability	-0.012 (-0.614)	-0.128** (-2.155)	-0.211*** (-3.305)
Capx	-0.729 (-0.540)	-8.168*** (-3.814)	-6.588*** (-3.596)
Ownership	0.847*** (22.235)	1.755*** (6.349)	1.585*** (7.126)
Gender	3.009*** (9.165)	2.686** (2.159)	2.663*** (2.698)
Duality	2.854*** (13.953)	6.682*** (6.583)	6.604*** (8.055)
Board size	-1.384** (-2.202)	1.796* (1.773)	1.282 (1.497)
Perc_indep	-0.020* (-1.657)	0.098*** (5.034)	0.163*** (10.316)
Sust_comm	-1.110*** (-4.552)	21.145*** (34.409)	13.319*** (27.450)
Constant	1.456 (0.284)	-59.445*** (-11.760)	-20.922*** (-4.185)
Observations	11,629	11,629	11,629
R-squared	0.158	0.590	0.499
χ^2	24.109***		
industry fe	yes	yes	yes
year fe	yes	yes	yes

Note: This table presents the 2sls regression results. Column 1 represents the first stage regression to estimate the predicted value of myopia variable. Columns 2 and 3 present the second stage and the impact of the predicted myopia on environmental and social performance, respectively. *employment opportunity* is computed as the proportion of other CEOs who receive higher pay than the CEO within the same industry. The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.10 Results after incorporating lagged variables

VARIABLES	<u>Environmental performance</u>			<u>Social performance</u>		
	F+1	F+2	F+3	F+1	F+2	F+3
Myopia	-0.048*** (-2.747)	-0.053*** (-2.724)	-0.061*** (-2.863)	-0.083*** (-5.881)	-0.084*** (-5.441)	-0.099*** (-5.880)
Size	7.824*** (44.985)	8.056*** (43.015)	7.978*** (39.451)	4.964*** (33.453)	4.960*** (30.914)	4.870*** (28.317)
Age	0.040*** (5.913)	0.027*** (3.639)	0.016** (2.038)	0.038*** (6.604)	0.032*** (5.206)	0.027*** (3.996)
Lvg	-5.166*** (-5.114)	-5.735*** (-5.098)	-5.711*** (-4.674)	-1.365 (-1.624)	-1.811** (-1.980)	-1.298 (-1.300)
ROA	2.019 (0.738)	2.830 (0.908)	4.158 (1.227)	4.558* (1.857)	4.074 (1.417)	5.378* (1.773)
Cap_int	-26.295*** (-13.359)	-27.119*** (-12.549)	-28.895*** (-12.071)	-19.513*** (-11.727)	-20.504*** (-11.304)	-21.191*** (-10.552)
Profitability	-0.025 (-0.669)	-0.510 (-1.170)	0.011 (0.264)	-0.124*** (-2.703)	-0.525 (-0.993)	-0.041 (-1.049)
Capx	-4.508* (-1.953)	-4.509* (-1.821)	-2.884 (-1.043)	-5.043** (-2.562)	-5.835*** (-2.853)	-6.023*** (-2.714)
Ownership	0.058 (1.339)	0.050 (1.001)	0.059 (1.062)	-0.028 (-0.787)	-0.038 (-0.991)	-0.054 (-1.279)
Gender	-3.414*** (-3.899)	-3.492*** (-3.495)	-4.083*** (-3.714)	-2.437*** (-3.704)	-2.051*** (-2.813)	-2.639*** (-3.266)
Duality	1.047** (2.569)	1.171*** (2.611)	1.442*** (2.916)	1.065*** (3.132)	0.869** (2.352)	0.868** (2.170)
Board size	5.200*** (5.156)	5.626*** (5.130)	6.130*** (5.102)	4.404*** (5.186)	5.227*** (5.700)	5.220*** (5.234)
Perc_indep	0.141*** (7.312)	0.138*** (6.590)	0.133*** (5.941)	0.212*** (13.631)	0.220*** (13.148)	0.214*** (12.111)
Sust_comm	21.799*** (43.222)	19.766*** (36.674)	18.446*** (32.023)	14.494*** (36.582)	13.341*** (31.301)	12.748*** (27.828)
Constant	-47.778*** (-12.912)	-46.401*** (-11.506)	-41.600*** (-9.017)	-14.415*** (-4.491)	-14.318*** (-4.207)	-7.527** (-1.993)
Observations	10,037	8,877	7,780	10,037	8,877	7,780
R-squared	0.573	0.548	0.522	0.482	0.463	0.448
industry fe	yes	yes	yes	yes	yes	yes
year fe	yes	yes	yes	yes	yes	yes

Note: This table presents the results after including the forward-lagged dependent variables. Columns 1 and 4 represent the results after using (lagged+1). Columns 2 and 5 represent the results after using (lagged+2). Columns 3 and 6 represent the results after using (lagged+3). The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.11 Using average for calculating myopia variable

VARIABLES	(1) Env	(2) Soc
Myopia_avg	-0.034** (-2.169)	-0.081*** (-6.365)
Size	7.690*** (48.982)	5.049*** (38.122)
Age	0.056*** (9.130)	0.046*** (8.673)
Lvg	-4.692*** (-5.165)	-1.008 (-1.329)
ROA	3.666 (1.494)	4.754** (2.196)
Cap_int	-24.251*** (-13.555)	-19.440*** (-12.927)
Profitability	-0.060 (-1.148)	-0.147** (-2.528)
Capx	-4.782** (-2.328)	-3.556** (-2.037)
Ownership	0.057 (1.477)	-0.018 (-0.532)
Gender	-3.410*** (-4.381)	-2.965*** (-4.974)
Duality	0.712* (1.944)	1.146*** (3.733)
Board size	4.720*** (5.167)	3.811*** (4.952)
Perc_indep	0.135*** (7.713)	0.204*** (14.520)
Sust_comm	23.610*** (51.187)	15.592*** (43.221)
Constant	-49.349*** (-14.438)	-14.093*** (-4.789)
Observations	11,828	11,828
R-squared	0.591	0.505
industry fe	yes	yes
year fe	yes	yes

Note: this table demonstrates the use of industry average values rather than industry median values for constructing CEO myopia variable. Column 1 illustrates the effect of myopia-average variable on environmental performance. Column 2 illustrates the effect of myopia-average variable on social performance. The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.12 Using industry-adjusted age and tenure

VARIABLES	Industry-adjusted age		Industry-adjusted tenure	
	Env	Soc	Env	Soc
Industry-adjusted age	-0.049* (-1.868)	-0.128*** (-6.045)		
Industry-adjusted tenure			-0.050* (-1.910)	-0.096*** (-4.373)
Size	7.703*** (48.878)	5.086*** (38.387)	0.056*** (9.060)	0.045*** (8.430)
Age	0.056*** (9.136)	0.046*** (8.742)	-4.703*** (-5.174)	-0.997 (-1.311)
Lvg	-4.650*** (-5.127)	-0.913 (-1.207)	3.669 (1.493)	4.640** (2.136)
ROA	3.523 (1.436)	4.440** (2.053)	-24.246*** (-13.558)	-19.495*** (-12.947)
Cap_int	-24.346*** (-13.614)	-19.660*** (-13.060)	-0.059 (-1.137)	-0.145** (-2.519)
Profitability	-0.061 (-1.155)	-0.149** (-2.540)	-4.750** (-2.310)	-3.474** (-1.986)
Capx	-4.770** (-2.322)	-3.534** (-2.026)	0.056 (1.457)	-0.032 (-0.933)
Ownership	0.041 (1.114)	-0.051 (-1.586)	-3.389*** (-4.339)	-2.972*** (-4.963)
Gender	-3.475*** (-4.475)	-3.113*** (-5.248)	0.699* (1.906)	1.072*** (3.490)
Duality	0.670* (1.836)	1.060*** (3.466)	4.717*** (5.160)	3.826*** (4.960)
Board size	4.744*** (5.200)	3.864*** (5.028)	0.136*** (7.753)	0.206*** (14.621)
Perc_indep	0.135*** (7.687)	0.203*** (14.413)	23.610*** (51.192)	15.613*** (43.253)
Sust_comm	23.631*** (51.262)	15.636*** (43.358)	0.056*** (9.060)	0.045*** (8.430)
Constant	-49.300*** (-14.417)	-14.025*** (-4.765)	-49.146*** (-14.368)	-13.589*** (-4.641)
Observations	11,828	11,828	11,828	11,828
R-squared	0.591	0.504	0.591	0.504
industry fe	yes	yes	yes	yes
year fe	yes	yes	yes	yes

Note: this table demonstrates separating the main CEO myopia variable into industry-adjusted age and industry-adjusted tenure. Column 1 and 2 illustrates the effect of industry-adjusted age on the environmental and social performance, respectively. Column 3 and 4 illustrates the effect of industry-adjusted tenure on the environmental and social performance, respectively. The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.13 Using myopia binary variable

VARIABLES	(1) Env	(2) Soc
myopia_binary	-1.041*** (-3.008)	-1.558*** (-5.422)
Size	7.692*** (49.004)	5.042*** (38.074)
Age	0.056*** (9.127)	0.045*** (8.535)
Lvg	-4.681*** (-5.158)	-0.934 (-1.232)
ROA	3.623 (1.476)	4.463** (2.056)
Cap_int	-24.214*** (-13.542)	-19.503*** (-12.929)
Profitability	-0.059 (-1.121)	-0.145** (-2.480)
Capx	-4.802** (-2.339)	-3.548** (-2.032)
Ownership	0.049 (1.339)	-0.054* (-1.660)
Gender	-3.418*** (-4.397)	-3.066*** (-5.151)
Duality	0.724** (1.982)	1.072*** (3.502)
Board size	4.712*** (5.163)	3.836*** (4.985)
Perc_indep	0.138*** (7.847)	0.209*** (14.807)
Sust_comm	23.602*** (51.162)	15.618*** (43.304)
Constant	-48.976*** (-14.309)	-13.317*** (-4.536)
Observations	11,828	11,828
R-squared	0.591	0.504
industry fe	yes	yes
year fe	yes	yes

Note: this table demonstrates the use of binary variable to construct the Myopia variable. Column 1 illustrates the effect of myopia-dummy variable on the environmental performance. Column 2 illustrates the effect of myopia-dummy variable on the social performance. The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.14 Using alternative measures for environmental and social performance

VARIABLES	(1) % emission red.	(2) Controversies
Myopia	-0.146** (-2.280)	0.102*** (5.489)
Size	3.115*** (5.115)	-7.855*** (-33.498)
Age	-0.017 (-0.929)	0.008 (0.998)
Lvg	10.817*** (3.166)	3.474*** (3.087)
ROA	2.425 (0.254)	11.608*** (3.843)
Cap_int	12.256 (1.261)	16.502*** (8.301)
Profitability	4.140 (1.130)	0.040 (1.195)
Capx	-0.163 (-0.022)	0.788 (0.346)
Ownership	1.024*** (3.018)	-0.330*** (-6.765)
Gender	-3.056 (-1.390)	-0.105 (-0.113)
Duality	-0.114 (-0.094)	0.268 (0.607)
Board size	-3.573 (-0.867)	3.778*** (3.425)
Perc_indep	0.058 (0.731)	-0.017 (-0.824)
Sust_comm	-3.583* (-1.945)	-2.786*** (-5.569)
Constant	12.434 (0.894)	124.152*** (23.505)
Observations	2,163	11,828
R-squared	0.167	0.259
industry fe	yes	yes
year fe	yes	yes

Note: This table demonstrates the use of alternative measures for environmental and social performance. Column 1 illustrates the effect of myopia on the percentage of emission reduction. Column 2 illustrates the effect of myopia on EGS controversies. The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.15 Results after excluding financial firms

VARIABLES	<u>Environmental</u>		<u>Social</u>	
	full sample	Exclude financial	full sample	Exclude financial
Myopia	-0.035** (-2.209)	-0.035** (-2.030)	-0.081*** (-6.323)	-0.064*** (-4.577)
Size	7.691*** (48.980)	7.698*** (46.098)	5.049*** (38.119)	5.156*** (35.659)
Age	0.056*** (9.131)	0.059*** (9.350)	0.046*** (8.667)	0.048*** (8.663)
Lvg	-4.695*** (-5.168)	-4.381*** (-4.630)	-1.011 (-1.333)	-0.350 (-0.436)
ROA	3.665 (1.494)	3.771 (1.501)	4.737** (2.189)	3.902* (1.766)
Cap_int	-24.255*** (-13.557)	-15.979*** (-6.858)	-19.457*** (-12.940)	-12.166*** (-5.850)
Profitability	-0.060 (-1.149)	-0.064 (-1.442)	-0.148** (-2.527)	-0.156*** (-2.906)
Capx	-4.778** (-2.326)	-7.976*** (-3.768)	-3.543** (-2.031)	-6.477*** (-3.631)
Ownership	0.057 (1.494)	0.065 (1.599)	-0.018 (-0.532)	0.003 (0.077)
Gender	-3.405*** (-4.375)	-3.579*** (-4.474)	-2.960*** (-4.967)	-3.099*** (-4.993)
Duality	0.714* (1.949)	1.062*** (2.714)	1.145*** (3.727)	0.946*** (2.834)
Board size	4.721*** (5.168)	6.676*** (6.581)	3.815*** (4.958)	5.083*** (5.822)
Perc_indep	0.135*** (7.712)	0.149*** (8.073)	0.204*** (14.521)	0.228*** (15.328)
Sust_comm	23.608*** (51.179)	23.562*** (48.450)	15.591*** (43.215)	15.321*** (39.587)
Constant	-49.282*** (-14.414)	-64.795*** (-17.192)	-13.924*** (-4.734)	-26.116*** (-7.519)
Observations	11,828	10,483	11,828	10,483
R-squared	0.591	0.593	0.505	0.501
industry fe	yes	yes	yes	yes
year fe	yes	yes	yes	yes

Note: This table demonstrates the effect of myopia on environmental and social performance after excluding financial firms. Column 1 shows the effect of myopia on environmental performance for the full sample. Column 2 shows the effect of myopia on environmental performance after excluding financial firms. Column 3 shows the effect of myopia on social performance for the full sample. Column 4 shows the effect of myopia on social performance after excluding financial firms. The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 3.16 Further analysis results: firm's size

VARIABLES	<u>Environmental performance</u>		<u>Social performance</u>	
	Big	Small	Big	Small
Myopia	0.007 (0.260)	-0.101*** (-3.286)	-0.036* (-1.691)	-0.130*** (-5.379)
Size	6.932*** (26.450)	6.412*** (14.394)	4.278*** (19.252)	3.579*** (8.985)
Age	0.084*** (9.653)	-0.015 (-1.138)	0.064*** (8.491)	0.021* (1.705)
Lvg	-0.911 (-0.634)	-7.265*** (-4.029)	0.184 (0.159)	-0.424 (-0.285)
ROA	17.752*** (3.665)	4.666 (0.781)	15.201*** (3.753)	11.271** (2.184)
Cap_int	-26.969*** (-6.617)	-19.704*** (-5.144)	-15.076*** (-4.749)	-22.788*** (-6.838)
Profitability	-5.132*** (-5.418)	-2.787** (-2.351)	-2.787*** (-3.687)	-4.275*** (-4.299)
Capx	-4.165 (-1.158)	-1.743 (-0.454)	-5.709* (-1.845)	3.084 (1.008)
Ownership	0.291*** (3.469)	0.026 (0.371)	0.005 (0.065)	-0.131** (-2.363)
Gender	-1.956 (-1.637)	-5.649*** (-3.833)	-4.209*** (-4.790)	-2.925** (-2.457)
Duality	-0.098 (-0.169)	-0.418 (-0.555)	1.986*** (4.066)	-0.523 (-0.819)
Board size	7.178*** (4.691)	4.237** (2.130)	5.094*** (3.825)	3.616** (2.203)
Perc_indep	0.131*** (4.613)	0.131*** (3.928)	0.195*** (8.347)	0.209*** (7.390)
Sust_comm	27.040*** (37.619)	18.270*** (20.521)	15.764*** (28.102)	13.410*** (18.430)
Constant	-28.975*** (-5.324)	-104.218*** (-14.441)	-18.348*** (-3.332)	-42.634*** (-7.128)
Observations	3,340	5,869	3,340	5,869
R-squared	0.236	0.402	0.192	0.387
industry fe	yes	yes	yes	yes
year fe	yes	yes	yes	yes

Note: This table demonstrates the effect of myopia on environmental and social performance based on the firm's size. Column 1 shows the effect of myopia on environmental performance for big firms. Column 2 shows the effect of myopia on environmental performance for small firms. Column 3 shows the effect of myopia on social performance for big firms. Column 4 shows the effect of myopia on social performance for small firms. The definition of each variable is reported in Table 3.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Chapter Four: Research Paper 3

**CEO myopia and economic performance: The triple bottom line
perspective on incentives and sectoral differences**

Chapter Four: CEO myopia and economic performance: The triple bottom line perspective on incentives and sectoral differences

Abstract

This paper examines the impact of CEO myopia on firms' economic performance from the perspective of the triple bottom line approach. First, through the lens of upper-echelon theory and stakeholder-agency theory, the paper investigates the direct effect of this myopic behaviour and illustrates whether there is a difference between financial and non-financial firms. Second, it examines the moderating role of long-term incentives and explores the differences in the moderating effect of long-term incentives across financial and non-financial firms' subsamples. Third, it investigates whether environmental and social performance mediate the relationship between myopia and economic performance. Empirically, the paper tests a sample of S&P 1500 index-listed firms during the period from 2002 to 2022. It applies multiple regression models with a path analysis to examine a sample of 11,828 firm-year observations, yielding the following results. The paper provides strong evidence for a significant negative relation between CEO myopia and economic performance, and this relation differs significantly between non-financial and financial sectors. Long-term incentives have a significant positive moderating impact on this relationship, indicating their effectiveness in mitigating CEOs' myopic behaviour. In terms of the difference between the two sectors, there is a significant difference in the moderating role of long-term incentives between financial and non-financial firms; namely, the impact is greater among the financial firms. The path analysis reveals that both environmental and social performance mediate the myopia-economic performance relationship, which is consistent with the view of the Sustainable Development Goals. Finally, this paper presents valuable insights for policymakers, businesses and practitioners into the consequences of short-termism and the effectiveness of governance mechanisms in promoting strategic planning across different sectors.

Keywords: CEO myopia; sustainability performance; economic performance; corporate governance; long-term incentives; moderating role; mediating role; financial firms; non-financial firms; upper-echelon theory; stakeholder-agency theory

4.1 Introduction

In the current business dynamic environment, corporations are experiencing increasing pressure to achieve immediate financial outcomes while maintaining long-term strategic plans (Davies, Haldane, Nielsen, & Pezzini, 2014; Mbanyele et al., 2023; Xu & Yang, 2023). Faced with pressure from capital markets, investors and quarterly reporting demands, managers tend to prioritise immediate outcomes and short-term focus, known as “myopia”. A growing body of literature has examined how different mechanisms affect firms’ preferences for short-term or long-term objectives (Deckop et al., 2006; Flammer & Bansal, 2017; Siegrist et al., 2020). This can be related to the growing concern about sustainability, which led to the issuance of Sustainable Development Goals (SDGs) by the United Nations in 2015. According to the triple bottom line proposed by Elkington (1998), the concept of sustainability is defined as companies’ efforts to balance short- and long-term performance among the three dimensions: “economic, environmental and social”. Managerial myopia refers to firms’ excessive focus on short-term profits at the expense of long-term value creation (Stein, 1989; Narayanan, 1985). According to Wagner (2010, 2015), the economic dimension is the ability of companies to not only adhere to environmental or social principles but also improve their competitiveness and stakeholder value creation. Hence, myopia may affect managers’ choices regarding integrating the three dimensions and lead to increased agency costs and information asymmetry, which adversely impact firms’ long-term value creation (Sternad & Kennelly, 2017). These choices are notably influenced by governance mechanisms that help reduce agency costs inherent in principal-agent relationships (Healy & Palepu, 2001).

While the adverse implications of this myopic behaviour are recognised in areas such as ESG investment and innovation (e.g., Fan et al., 2024; Seo et al., 2020), its direct impact on firms’ economic performance, particularly regarding the sustainability concept, has received less focus. According to Kurznack et al. (2021), only a few firms have started investigating strategic decisions that focus on long-term value creation for a broad range of stakeholders, not only shareholders. Although a large portion of the literature has addressed the economic consequences of myopia on long-term investments such as capital expenditures and R&D (e.g., Aghamolla & Hashimoto, 2023; Asker et al., 2015), Graham et al. (2005) conducted a survey and interviewed more than 400 CEOs and found that executives would neglect long-term value strategies to maintain the short-term earnings target. Therefore, as firms try to integrate sustainable activities into their objectives, this myopic behaviour may lead to strategies

affecting firms' long-term economic performance (Flammer & Bansal, 2017). Given the importance of this long-term value creation concept, it is important to understand whether short-term orientation impairs firms' economic sustainability.

A growing number of work and academic research emphasises that achieving economic sustainability can be attained through maintaining good environmental and social performance (Rockström and Sukhdev, 2022). This is consistent with the view of stakeholder-agency theory (Hill & Jones, 1992), which presents a broader governance viewpoint and describes how stakeholder pressures and institutional structures impact executives' decision-making. This framework clarifies the dynamics that shape managerial decisions in adopting the triple bottom line approach, which results in more future-focused strategic planning. According to Mann et al. (2024), a positive relationship exists between communicating SDG orientation and firms' economic performance. This explains that stakeholders may respond favourably to firms that communicate SDGs-related targets, which leads to strengthening firms' long-term economic value. In addition, the "SDG wedding cake model", developed by Rockström and Sukhdev (2022) with the Stockholm Resilience Centre, illustrates the interconnection of the three sustainability pillars, where economic sustainability relies on prior developments in environmental and social performance (see Appendix A Fig. B).

Chief Executive Officers (CEOs) are responsible for implementing strategic choices and sustainability practices that could impact a company's future success (Abu-Ali et al., 2024; Lai et al., 2020). Prior literature drawing on the upper-echelon theory implies that executives' background personalities affect their decision-making process (Hambrick, 2007; Hambrick & Mason, 1984). Recent findings (e.g., Mizik & Jacobson, 2007; Saboo et al., 2016) suggest that CEOs' preference for time horizons affects their strategic orientation choices, especially when prioritising long-term decisions over short-term returns. In addition, from the perspective of agency theory, information asymmetry exists between CEOs and shareholders, where CEOs' interests may conflict with those of shareholders during the process of strategic decision-making (Eisenhardt, 1989). This can be viewed from the concept of myopia, where the focus on immediate profits may be detrimental to the principal-agent relationship, and the misalignment of interests between managers and shareholders may significantly impact firms' sustainability performance (Kao et al., 2019). CEOs may engage in myopic behaviour when they can personally benefit in the short run (Stein, 1989). Furthermore, according to stakeholder-agency theory, the agency issue extends beyond firms' shareholders and involves

other stakeholders, such as employees and communities (Hill & Jones, 1992). From this perspective, CEOs' myopic behaviour may affect shareholder value and stakeholders' long-term interest, thereby affecting firms' overall sustainability performance.

Based on the above discussion, introducing proper long-term incentives helps align managers' decision-making horizons with firms' strategic goals (Ahamed, 2022). From a time-orientation perspective, including performance-vesting and time-vesting conditions expands executives' decision-making and promotes long-term strategic thinking (Zeng et al., 2023). For example, stock options promote a long-term perspective, as executives retain these options for an extended period, usually after they become exercisable (Alessandri et al., 2018). From this perspective, long-term incentives will counteract managers' short-termism and align their interests with companies' long-term value creation, which inherently includes the interests of various stakeholders, with some prioritising environmental issues and others focusing on social issues (Kurznack et al., 2021).

The conflict between short-term profit pressures and long-term strategic goals is pronounced in both non-financial and financial sectors. For example, non-financial companies experience difficulties in implementing sustainable practices without sacrificing short-term profits, whereas financial companies are examined for their part in financing environmentally harmful projects (Flammer & Bansal, 2017). Most governance literature has focused on non-financial firms, excluding financial firms, as the latter may be subject to special regulations and attributes (Elyasiani & Zhang, 2015; Tauringana & Chithambo, 2015). However, the concept of sustainability is essential for both sectors to address their comprehensive effects on the economy, environment and society. The Global Reporting Initiative (GRI) framework, widely used worldwide by companies to report their performance across three sustainability dimensions, is designed for organisations of all sectors and sizes (Fonseca et al., 2014; Yadava & Sinha, 2016). However, compared to non-financial firms, financial firms experience higher agency costs, which are exacerbated by their unique characteristics (Adu et al., 2022; Lee & Hwang, 2019). For example, information asymmetries are more pronounced in financial firms due to their complexity, opacity and multitude of stakeholders (Bhagat & Bolton, 2014; Ongena et al., 2022). The primary focus of non-financial firms is to maximise shareholder value, while the fiduciary duties of financial firms go beyond shareholders and include another group of stakeholders, leading to exacerbating the information asymmetry issue in the financial sector (Elyasiani & Zhang, 2015). The existence of additional parties in financial firms creates more

complex agency problems than those typically noticed in non-financial firms (Akbar et al., 2017). In addition, Kolasinski & Yang (2018) find that short-termism not only played a role in the financial crisis but was also a major contributor to the subprime mortgage crisis. In this context, the unique function of financial firms and the adverse effects of their collapse leave their agency issues more expensive for the broader economy (De Haan & Vlahu, 2016). Therefore, due to the significant role that financial institutions have in maintaining economic stability, compensation incentives serve as a crucial governance control mechanism, making it more vital in the financial sector compared to non-financial sectors (Pathan, 2009).

Although prior literature has acknowledged the impact of managerial myopia on corporate practices, there are still notable gaps in addressing how myopia affects firms' sustainability performance. First, despite this progress in investigating the myopia-sustainability nexus, most studies have explored this impact on sustainability from the perspective of environmental and/or social dimensions. For example, Thomas et al. (2022) find that managers driven by short-termism behaviour often reduce pollution abatement expenses, which results in increasing environmental deterioration. Socially, Qian et al. (2019) highlight the detrimental impact of managerial myopia on corporate social performance, which may cause managers to reduce investments in areas such as community engagement and employee safety. However, the economic dimension is a crucial component of companies' sustainability, where, according to Schneider & Meins (2012), it is important to meet the demands for sustainable development and to provide the overall picture of their sustainability performance. Buck et al. (2021) support this by considering the three dimensions (environmental, social and economic), where neglecting any aspect may result in less effective or unbalanced sustainability initiatives. In a similar vein, Greenland et al. (2023) illustrate the importance of environmental management education in integrating not only the environmental pillar but also the economic and social dimensions to achieve a comprehensive picture of sustainability and attain the targeted SDGs. In a similar vein, according to Flammer & Bansal (2017), CEOs' short-termism behaviour not only impairs firms' environmental and social performance but can also hinder their economic performance as markets progressively favour sustainable practices.¹⁶ Therefore, it is crucial to understand the impact of managerial myopia on sustainability performance from the triple bottom line perspective to promote more balanced and long-term decision-making.

¹⁶ Noticing that the term 'managerial myopia' or simply 'myopia' is commonly used interchangeably with "short-termism" to represent a temporal orientation that primarily concentrates on the short term (Galbreath, 2017).

Second, the construct of myopia has proven challenging to measure across empirical studies (Souder & Bromiley, 2012). Most studies have devised myopia indicators based on the consequences of this behaviour. For example, some literature (e.g., Bushee, 2001; Gaspar et al., 2005) uses stock turnover or short-term investments. Others (e.g., Mizik, 2010; Rostami et al., 2022) use some accounting measures like R&D and marketing expenses. Recent literature (Cao et al., 2023; Lu et al., 2024) uses textual analysis to construct indicators of managerial myopia. However, according to Peng (2022), the concept of myopia is an unobservable characteristic or attribute of corporate managers that may affect their decision horizon. This generates a notable gap in the literature that needs to be explored regarding the role of these managers' traits (e.g., age, tenure, experience) in the myopia-sustainability nexus.

Third, executives play a crucial role in shaping firms' strategic choices and actions. However, according to Ladika & Sautner (2020), CEOs' short-term behaviour is exacerbated when their incentive horizons are short. From this point, executive compensation serves as an effective corporate governance mechanism that helps solve the agency issue and aligns CEOs' interests with the firms' long-term sustainability (Flammer et al., 2019; Siegrist et al., 2020). Company managers may lack the motivation to invest in sustainable strategies. Therefore, investigating effective corporate governance mechanisms to incentivise managers to enhance their motivation toward sustainability performance is an important issue for both scholars and practitioners. Furthermore, there is a need to understand whether the impact of corporate governance mechanisms on CEOs' decision-making process varies between the non-financial and financial sectors. As a common practice, most of the literature that examines the myopia-sustainability nexus has focused mainly on non-financial companies and excluded financial companies (e.g., Liu & Zhang, 2023; Peng, 2022; Post et al., 2011). This can be related to the argument that comparing non-financial to financial firms is difficult, as the latter have unique operations and increased leverage. Agency costs can vary significantly between the two sectors, where long-term incentives can reduce these costs and information asymmetries (Akbar et al., 2017; Haniffa & Cooke, 2002). In addition, this paper employs a myopia measure (based on CEOs' age and tenure) to capture how these attributes affect their decision regarding economic performance. According to Lucier et al. (2002), the short-sighted behaviour of CEOs can differ considerably by industry. Consequently, this adjusted measure for industries provides a better assessment of myopia, as it accounts for the industry's influence on tenure and age.

Fourth, no consistent theoretical framework explains the impact of CEO decision horizon (as a proxy for managerial myopia) on the three sustainability dimensions (economic, environmental, and social). Some literature (e.g., Chen et al., 2022) explains the long-term view of corporate responsibility performance from the perspective of stakeholder theory (Parmar et al., 2010). Others (e.g., Flammer et al., 2019; Fu et al., 2019) use the agency theory that focuses on conflicts between principal and agent over short or long-term objectives. Although both theories are helpful, they only offer a partial understanding of the overall sustainability dynamic regarding the three dimensions (Almici, 2022). To bridge this gap, and in addition to the upper-echelon theory, this paper implements the stakeholder-agency theory, proposed by Hill & Jones (1992), which classifies CEOs as unique groups that have direct control over firms' decision-making processes. This leads CEOs to be responsible for strategic decisions, aligning with the upper-echelon theory, which indicates that corporate strategic plans are significantly shaped by their top managers' attributes (age and tenure, for the purpose of this paper). Notably, the stakeholder-agency theory combines the view of agency theory and stakeholder theory, which is highly appropriate for understanding the interrelated impacts of the CEO's myopia on the three sustainability dimensions based on the triple bottom approach.

Building on the reasoning above, this paper aims to bridge the previous gaps in the literature and illustrate how managerial myopia may affect firms' economic performance. This paper aligns with the "SDG wedding cake" framework, where both environmental and social performance serve as the foundation elements that support economic performance. In addition, this paper aims to address existing gaps in the literature and examine how CEOs' long-term incentives, as a corporate governance mechanism, can moderate the influence of managerial myopia on decision-making, and whether this impact varies between non-financial and financial sectors. The study uses a sample of S&P 1500 companies, which comprise large, mid-cap, and small-cap companies, and combines both non-financial and financial sectors for the period from 2002 to 2022. The dependent variable incorporates the economic performance (measured by Tobin's Q). The independent variable (CEO myopia) is measured using the work of Antia et al. (2010), which captures both the CEOs' ages and tenures. The moderating variable (long-term incentives) is approximated by the value of performance shares and stock options granted in the fiscal year. In addition. This paper applies a path analysis to test whether CEO myopia affects firms' economic performance indirectly through its effect on environmental and social performance (both gathered from the LSEG database). Finally, the study includes three sets of control variables related to firm-level, executive-level, and board-level characteristics.

Grounded in the stakeholder-agency theory and upper-echelon view, the key findings illustrate that firms' economic performance is maximised in the absence of managerial myopia. Empirically, CEOs' myopia is significantly and negatively associated with economic performance, and this impact is mediated through environmental and social performance. In addition, the key findings illustrate the importance of long-term incentives in mitigating CEOs' myopic behaviour and aligning their interest with firms' long-term value. Empirically, long-term incentives have been found to positively moderate the negative relationship between managerial myopia and economic performance. Furthermore, the study shows that these incentives effectively improve CEOs' time-oriented behaviour and mitigate principal-agent problems in financial firms. However, when analysing the subsample of non-financial firms, the interaction term between long-term incentives and myopia is positive but insignificant. These results indicate the difference between non-financial and financial firms in terms of incentivising their executives and how these incentives may counteract CEOs' myopic behaviour.

This paper contributes to the existing literature on corporate governance, managerial behaviour and sustainability in the following ways. First, it enhances the understanding of the impact of managerial myopia (proxied by CEOs' short-term decision horizon) on sustainability performance through the lens of the triple bottom line approach. Most of the studies focus on one (e.g., Liu et al., 2021; Thomas et al., 2022) or two dimensions (e.g., Galbreath, 2017; Post et al., 2011). However, this study offers a comprehensive understanding of sustainability performance and addresses the interrelated aspects of environmental, social, and economic responsibility in modern corporate practices. Second, this paper contributes to the literature by investigating mechanisms through which myopia affects firms' economic performance. It finds environmental and social performance as mediating channels, reflecting the interconnected principles of the SDGs. Third, this paper contributes to the literature on upper-echelon theory (Hambrick & Mason, 1984) and stakeholder-agency theory (Hill & Jones, 1992). The upper-echelon view illustrates the micro-level foundation by examining how CEOs' expected tenure influences strategic vision, particularly regarding sustainability investments. On the other hand, the stakeholder-agency provides a broader governance viewpoint and explains how stakeholder pressures and institutional structures impact executives' decision-making. This theoretical perspective clarifies the underlying dynamics that influence managerial decision-making toward adopting the triple bottom line approach, which leads to implementing more future-oriented strategic plans. Fourth, this paper tests the impact of myopia on economic

performance, the moderating effect of long-term incentives on this relationship, and the comparison of non-financial and financial firms. The majority of existing research in this field focuses on non-financial sectors (e.g., Erhemjamts & Huang, 2019; Shin & Park, 2020). However, the increasing regulatory demands from financial authorities in recent years to encourage sustainable practices within the financial sector have resulted in financial firms implementing sustainable strategies parallel to those of non-financial companies (Soana, 2024). Finally, this study provides valuable insights for practitioners, businesses and policymakers in both financial and non-financial firms to understand the consequences of managerial myopia and how effective corporate governance mechanisms can align managers' strategies with long-term economic value.

The remainder of the study is structured as follows. Section 4.2 explains the theoretical framework and the development of the hypotheses. Section 4.3 illustrates the data and methodology employed. Section 4.4 presents and discusses the empirical results. Finally, Section 4.5 presents the summary and conclusion.

4.2 Literature review

4.2.1 Theoretical framework

This study explains the relationship between managerial myopia and economic performance by drawing on two theories: 1) the upper-echelon theory developed by Hambrick & Mason (1984) and 2) the stakeholder-agency theory developed by Hill & Jones (1992), taking into consideration the time-oriented perspective. In addition, it examines the moderating role of long-term incentives and whether there is a sector-based difference from the view of traditional agency theory (Jensen & Meckling, 1976). Although several organisational factors may influence a firm's commitment to sustainability initiatives, CEOs play an important role in this regard (Carpenter et al., 2004). The upper-echelon perspective (Hambrick, 2007; Hambrick & Mason, 1984) exhibits that top management attributes influence a company's strategic outcomes and decisions. Therefore, it provides a valuable lens for investigating how CEO characteristics shape companies' sustainable strategies. Czakon et al. (2023) conceptualise myopia as a relatively stable behavioural disposition exhibited by executives, with variations evident among individuals. Specifically, from the upper-echelon perspective, CEOs' observable attributes or characteristics (in our case, age and tenure) can be reasonable

indicators compared to CEOs' psychological traits, which are hard to capture (Hambrick, 2007). These observable characteristics shape CEOs' career horizons and time orientation, which will directly impact firms' strategic plans (Peng, 2022). Compared to CEOs with long-term horizons, CEOs with shorter career horizons are more likely to exhibit myopic behaviour and pursue short-term benefits. However, these benefits could negatively affect the company's shareholders in the long term (Lee et al., 2018). Companies' sustainable investments may suffer from underinvestment if the CEO's decision horizon is short, as these activities require sustained inputs that can impact companies' short-term performance or earnings (Li et al., 2021). Taking a complementary viewpoint, the upper-echelon theory is based on the concept of bounded rationality (Pitelis, 2007), where it recognises that the CEO's cognitive biases can cause a deviation from rational strategic decisions. In addition, the concept of bounded rationality recognises that CEOs' capacity to process information thoroughly is constrained; therefore, they may prioritise information according to their experiences, preferences, and other biases (Cho & Hambrick, 2006), which can shorten their decision horizon in a way that underinvests in long-term sustainable strategies (Peng, 2022).

The stakeholder-agency theory offers another theoretical framework to examine the impact of managers' short-term horizon on sustainable economic performance. This theory extends the view of agency theory by considering the company as a nexus between the manager and various stakeholders (e.g., employees and society). It recognises the possibility of conflicting interests between CEOs and non-shareholder stakeholders, where myopic managers may hurt their long-term needs. One of the significant conflicts between managers and corporate stakeholders arises from the difference in decision horizon. CEOs tend to have a shorter life, which is limited to their tenure, compared to firms' longer lifespans (Antia et al., 2010). This conflict between managers and other stakeholders' needs leads managers to behave myopically and undermine long-term sustainable economic strategies. According to the stakeholder-agency theory, this misalignment between short-term managers' actions and long-term stakeholder needs can result in substantial utility loss for the concept of sustainability. In this study, the concept of sustainability performance is described by Elkington (1998) as the triple bottom line, which includes the three (environmental, social, and economic) dimensions. The stakeholder-agency theory examines the explicit and implicit relationships among all stakeholders of the organisation where it combines the perspective of agency theory, commonly used to evaluate the impact of corporate governance on corporate financial performance, with the stakeholder theory, which is better suited for assessing the environmental and social dimensions of the

company (Cancela et al., 2020; Kao et al., 2019). Similar to stakeholder theory, Stakeholder-agency theory recognises that all stakeholders are encompassed within the contractual relationship of the company and takes a long-term perspective, where it emphasises the development of relationships and creating value for all stakeholders (Choi, Kim, & Shenkar, 2023; Collier et al., 2008). However, this theory considers managers to be stakeholders with distinctive attributes; therefore, they engage in contractual agreements with all other stakeholders and possess the power to influence and control firms' decision-making process (Cantrell et al., 2008). From this, it is expected that CEOs will formulate firms' strategic decisions and allocate the available resources to meet the expectations and balance these expectations with the long-term interests of other stakeholders, such as consumers, employees, and the community, in the context of sustainability. This highlights the potential conflicts that may arise when there is pressure for immediate or short-term financial results, which can lead managers to think myopically, rather than focusing on the need to invest in long-term sustainable strategies. Given that sustainability activities require temporal resource allocation over a longer time period (Cannon et al., 2020; Mbanyele et al., 2023), the CEO's decision horizon plays a determinant role in defining the appropriate decision-making processes. Accordingly, in the context of stakeholder-agency theory, this paper can analyse the governance mechanisms that effectively mitigate myopic behaviour and expand the CEO's decision horizon to focus on the three sustainability dimensions and provide valuable insights into reducing this short-sighted behaviour.

Taken together, both the stakeholder-agency perspective of the firm and the upper-echelons perspective of the top management team suggest that CEOs' focus on the short term is likely to impact firms' executives' orientations as well as their strategic decisions regarding long-term investments in sustainability. Using this dual-theoretical framework explains the interaction between micro-level managerial characteristics (in our case, age and tenure) and broader governance frameworks in promoting firms' sustainability performance from the view of the triple bottom line. According to the upper-echelon theory, organisational (in our case, environmental, social, and economic) outcomes reflected top management's personality characteristics in addition to their time frame perspectives in decision-making. On the other hand, the stakeholder-agency theory supports this notion and emphasises the complex dynamics between the agent (CEOs) and companies' stakeholders, where CEOs allocate resources and formulate strategic decisions to align these strategies with the interests of stakeholders, which is crucial for the concept of sustainability.

Regarding the moderating effect of long-term incentives, agency theory offers a practical framework to examine this impact and whether there is a sector-based difference. This theory is recognised in accounting literature for its ability to integrate conflicts of interest and compensation structures and analyse any information asymmetries that may exist (Lambert, 2001). Aligning managers' interests with the organisation's long-term goals encourages them to promote strategic decisions that improve firms' economic performance (Jiang et al., 2018). In addition, the resource-based view can be an effective framework, as this study investigates whether the impact of CEO incentives on the myopia-sustainability relationship differs between the financial and non-financial sectors. To create a competitive advantage, the resource-based view illustrates that companies may differ in using their unique available resources (Barney, 1991). Given the variability and heterogeneity of resources, different firms may use different strategies based on their resource deployment in order to achieve the targeted competitive advantage. Non-financial companies rely mainly on tangible assets or production-related resources in comparison to financial companies, which often rely on intangible resources (Engert et al., 2016). In addition, compared to non-financial firms, financial firms operate under different regulatory environments and have separate industry characteristics (Ioannou & Serafeim, 2012). Therefore, this sector-specific resource leads to an incentive structure to differently impact the CEO myopia-sustainability performance relationship between the financial and non-financial sectors.

4.2.2 Hypotheses development

4.2.2.1 CEO myopia and economic performance

The term “myopia” describes a management perspective that prioritises short-term gains (e.g., quarterly profits, stock values) over long-term value creation (Laverty, 2004; Marginson & Mcaulay, 2008). According to the upper-echelon theory, managers' personal traits (e.g., age, tenure) and/or external pressures may lead them to behave myopically, which affects firms' long-term investments in innovation, sustainability and workforce development in a way that harms long-term economic creation (Antia et al., 2010; Marginson et al., 2010). Myopia in behavioural economics is where intertemporal decision-making is constrained by a ‘horizon endpoint’ (Dshemuchadse et al., 2013). Beyond this point, the utility dramatically decreases, leading the manager or decision-maker to prefer short-term temporal choices.

From the perspective of the stakeholder-agency theory, managers serve as agents not just for shareholders, but also for stakeholders (e.g., employees, customers), which integrates the traditional agency issues with stakeholder responsibilities (Hill & Jones, 1992). CEOs with myopic behaviour tend to overlook long-term strategic investments and stakeholder relationships, which may affect firms' future earnings capability and reputation (Graham et al., 2005). This discrepancy between executives' actions and stakeholder expectations may weaken long-term value creation, mainly since economic performance depends on investor trust in a firm's future growth (Konadu et al., 2022).

Although some literature has illustrated that certain myopic practices may not affect long-term value (e.g., Chen, Lin and Yang, 2015), most empirical studies support this behaviour's negative impact on long-term investments and economic sustainability. Antia et al. (2010) support this argument and find that CEOs with shorter decision horizons (myopic managers) are associated with greater agency costs, leading to a decline in the firm's market valuation. In a similar vein, McClelland et al. (2012) find that managers with shorter decision horizons (proxied by CEOs' age) will lead managers to behave myopically in a way that negatively affects future firm performance. In the Chinese and Danish market context, Kato & Long (2006) and Lausten (2002) find that a shorter decision horizon is associated with lower market valuations, as evidenced by a strong and negative relation between CEO turnover and firm performance. Therefore, consistent with theoretical arguments and based on the empirical findings and the above discussion, this study argues that managerial myopia will adversely impact corporate economic performance. Thus, this study posits the first hypothesis (H1a) as follows:

H1a: CEO myopia is associated with lower economic sustainability performance

Although CEOs' short-term behaviour is expected to affect firms' economic performance negatively, their impact may vary across financial and non-financial sectors. The linkage between myopia and economic sustainability can differ between the two sectors due to the unique risk profile and regulatory framework of each sector (Elisabetta & Iannuzzi, 2017). The regulatory framework, stakeholder oversight, and the characteristics of each sector may further emphasise the significance of long-term strategic planning and sustainability considerations (Kartadjumena & Rodgers, 2019; Mansour et al., 2023). According to Ahamed (2022), each sector's characteristics may differently affect CEOs' decision-making process and how it is linked to long-term strategic goals. Lai et al. (2024) support this argument and state that financial firms' managers exhibit more myopic behaviour due to their regulatory reporting

requirements, while non-financial firms usually prioritise long-term investments in infrastructure and innovation. Therefore, due to sector-specific differences, the impact of myopia on firms' economic performance may differ between financial and non-financial firms. Based on the previous discussion, this paper posits the first hypothesis (H1b) as follows:

H1b: The relationship between CEO myopia and economic sustainability performance differs between non-financial and financial sectors

4.2.2.2 Moderating role of long-term incentives on the myopia-economic performance relationship

The negative impact of managerial myopia on firms' economic performance can be alleviated through effective incentive structures that align CEOs' interests with long-term value creation. From the upper-echelon view, installing appropriate incentive schemes can reshape managers' cognitive orientations and encourage them to incorporate sustainable initiatives into their strategic decisions (Chin et al., 2013). Flammer & Bansal (2017) support this argument and find that the passage of long-term compensation proposals counteracts short-termism and has a significant and positive association with stakeholders' relationships. However, the usefulness of CEOs' incentives may be moderated by their commitment to sustainability principles. This indicates that these incentives alone could be inadequate unless they are aligned with managers' personal attributes, which is consistent with the upper-echelon theory (Slawinski et al., 2017).

Second, agency theory views these long-term incentives as serving to address the temporal misalignment between agents (CEOs) and principals (shareholders) by promoting investment in long-term activities (Jensen & Meckling, 1976; Han et al., 2022). Stakeholder-agency theory builds on this argument and suggests that a long-term focus on stakeholder needs may reduce agency costs and improve firms' economic sustainability (Hill & Jones, 1992; Flammer & Bansal, 2017). According to Watts & Zimmerman (1986), managers whose compensation relies mainly on short-term incentives (e.g., bonuses) are more likely to manipulate performance metrics to increase immediate profits. However, long-term incentives serve as governance mechanisms that encourage long-term strategic investments and focus on sustainable value creation.

Empirical studies have reported that CEO incentives significantly mitigate myopic behaviour and positively affect firms' sustainability performance. Francis et al. (2019) studied a sample of U.S. industrial firms and found that long-term incentives, in the form of stock options, are

positively related to firms' sustainable innovation. In addition, Ritz (2022) acknowledges that linking executive pay to long-term strategies positively impacts firms' sustainability performance in the energy sector. However, long-term incentives may have little impact on enhancing firms' sustainability performance if CEOs do not essentially value sustainable initiatives which are consistent with the upper-echelon view (Briscoe et al., 2014). Based on a sample of heavily polluting companies, Zhao et al. (2023) find that equity incentives inhibit firms' green innovation. Accordingly, the third hypothesis for this study is formulated as follows:

H2: Long-term incentives have a significant positive moderating role between myopia and economic performance

4.2.2.3 Difference in the moderating effect of long-term incentives between non-financial and financial sectors

Firms in different sectors can impact environmental and social initiatives through their operations and strategic investments, as they interact with tangible and intangible elements (Flammer et al., 2019). However, the relationship between long-term incentives, CEO myopia and economic performance can be represented differently due to the sector's specific attributes. Non-financial companies may have a direct impact on the environmental and social dimension as they participate in tangible product markets (Eccles et al., 2014). Sustainability has recently become a critical concern for companies across all industries and sectors. García-Sánchez & Noguera-Gámez (2017) observed a significant increase in financial companies' commitment to sustainability, which indicates a shift toward long-term value creation. However, due to the differences in resource structures and regulatory environments (De Haan & Vlahu, 2016; Elyasiani & Zhang, 2015), the moderating impact of long-term incentives on the myopia-economic performance relationship may differ between financial and non-financial firms. Grounded in the agency theory, aligning CEOs' interests with shareholders' long-term value is important to mitigate short-term thinking in both financial and non-financial sectors (Akbar et al., 2017). However, several studies (e.g., John et al., 2016) state that agency issues are more significant in financial companies due to their different characteristics and nature than in non-financial companies. These differences lead financial companies to have higher information asymmetries as they are more regulated and have more unique operations and complex products. The financial sector involves a broader range of stakeholders (e.g., regulators, creditors) in addition to shareholders. This variety of stakeholders leads to more agency issues

in comparison to non-financial firms, which mainly concentrate on maximising the value of shareholders (Lee & Hwang, 2019; Akbar et al., 2017).

Previous literature has examined the effectiveness of long-term incentives in mitigating agency issues within the financial sector. Using a sample of Korean banks, Lee and Hwang (2019) illustrate that stock-based compensation significantly aligns executives' interests with banks' long-term value. Similarly, Kartadjumena & Rodgers (2019) demonstrate that long-term pay compensation structures help mitigate the impact of managers' myopic behaviour, resulting in improved corporate financial performance in financial institutions. These results suggest that long-term incentives are becoming increasingly common for modifying CEO behaviour in such a heavily regulated sector. This is consistent with Ahamed (2022), who indicates that there has been a shift towards incentive-based compensation systems, which enhance companies' shareholder value. Consequently, given the greater agency costs and information asymmetries in financial firms, long-term incentives may act as an effective governance tool to mitigate CEOs' short-term thinking, enhancing firms' economic performance. Therefore, the effectiveness of these incentives may significantly differ in mitigating myopic behaviour and its impact on economic performance between non-financial and financial companies.

From the upper-echelon view, CEOs invest in sustainable activities based on their preferences and values, where differences among managers result in heterogeneous company outcomes (Chin et al., 2013). In addition, stakeholder-agency theory suggests that CEOs in sectors with high public interest obligations (e.g., banks or financial institutions) face more complex stakeholder dynamics. Therefore, the differences in how CEOs may value investment in sustainability across the two sectors may explain how incentives may moderate the myopia-sustainability association. In addition, the resource-based view explains that firms may differ in utilising their unique resources to achieve a targeted competitive advantage (Barney, 1991). Given the differences across sectors, long-term incentives may differently motivate managers to leverage the available resources toward improving firms' economic performance. In this context, the issue of whether there is a difference between financial and non-financial firms in how long-term incentives moderate the impact of CEO myopia deserves to be investigated. Given these sectoral distinctions, the fourth hypothesis is structured as follows:

H3: The moderating role of long-term incentives on the relationship between myopia and economic performance is stronger in the financial sector than in the non-financial sector

4.2.2.4 Mediating role of environmental and social performance

According to the “SDG wedding cake” model, managerial myopia can negatively affect firms’ economic performance both directly and indirectly by overlooking environmental and social investments in order to create long-term value (Aubrecht, 2022; Greenland et al., 2023). CEOs with myopic behaviour may favour immediate financial gains at the expense of investing in environmental or social initiatives, which can threaten the concept of sustainability (Sternad & Kennelly, 2017). The upper-echelon theory reflects that CEOs with short-termism tend to prioritise immediate financial benefits, affecting companies’ sustained economic performance. This short-term focus will have an adverse impact on the long-term economic health of the company due to insufficient investments in sustainable activities, such as R&D and innovation (Dshemuchadse et al., 2013; Sternad & Kennelly, 2017).

According to Wagner (2010, 2015), the economic performance dimension of the sustainability concept demonstrates the ability of companies to not only adhere to social or environmental standards but also improve their competitiveness and stakeholder value creation. From the perspective of stakeholder-agency theory, the focus on short-term goals can be detrimental to other stakeholders, where this misalignment of interests significantly impacts firms’ economic performance (Kao et al., 2019). Corporation managers understand the need for a balanced integration of environmental and social objectives with economic performance to achieve sustainable development (Hussain et al., 2018; Konadu et al., 2021). From an organisational perspective, the difficulty of the sustainability concept lies in integrating environmental impact reduction and social welfare enhancements into corporations’ strategy without impeding their economic development (Sharma & Ruud, 2003; Wagner, 2015). However, managerial myopia may affect this integration as it has a negative impact on economic performance and long-term value creation of companies (Sternad & Kennelly, 2017). CEOs with myopic behaviour often allocate firms’ resources towards immediate financial returns, ignoring longer-term investments such as R&D or sustainable innovation. This may lead companies to lose their competitive advantage and long-term value creation, and become more subject to market conditions driven by sustainability requirements (Flammer & Bansal, 2017).

Empirically, Wagner (2010) illustrates that environmental and social performance have a significant impact on economic performance. While environmental performance directly boosts firms’ economic value, social performance is primarily realised through effective communication. Additionally, prior literature empirically documents a significant and negative

impact of managerial myopia on firms' economic performance (e.g., Cao et al., 2023; Kolasinski & Yang, 2018; Lai et al., 2020). Therefore, environmental and social performance can act as transmission channels where managerial myopia influences firms' economic performance. From this point, CEOs with myopic behaviour may neglect investing in this non-financial capital, which may affect firms' economic sustainability. Therefore, based on the above theoretical arguments and empirical findings, the fourth set of hypotheses is structured as follows:

H4a: Environmental performance mediates the relationship between CEO myopia and economic performance

H4b: Social performance mediates the relationship between CEO myopia and economic performance

4.3 Data and methodology

4.3.1 Sample selection

The study is based on a sample of S&P 1500 index-listed firms from 2002 to 2022. The selection of S&P 1500 U.S. firms is mainly based on two reasons. This index covers almost 90% of the U.S. stock market capitalisation (Przychodzen & Gómez-Bezares, 2021). In addition, the U.S. stock market is the largest globally in total market capitalisation, reaching USD 50.8 trillion by the end of 2023. To calculate the main CEO variable, this study requires the sample companies to include all data needed on CEO age and tenure. CEO career information and compensation are extracted from the ExecuComp database, which includes data for companies in the S&P 1500 index.¹⁷ For analysing the mediating effect, sustainability data is extracted from the London Stock Exchange "LSEG" database (formerly Refinitiv or Asset4 Thomson Reuters), which provides information regarding firms' environmental and social data. These data provide comprehensive information on firms' environmental, social and governance metrics (Haque & Ntim, 2018). All financial data is collected from the CompuStat database. All variables defined in the empirical models must be included in these three databases. In the end, these processes obtained a total sample of 11,828 firm-year observations covering the period from 2002 to 2022.

¹⁷ S&P 1500 index that incorporates the S&P 500, the S&P 400 mid-cap and the S&P 600 small-cap indices.

4.3.2 Dependent variable: economic performance

According to Moldan et al. (2012), the triple bottom line approach and sustainable development concept have transitioned from a qualitative, subjective view to a more definitive framework, mainly described in quantitative terms. Therefore, this study quantitatively measures the main dependent variables (economic performance), in addition to the two mediating variables (environmental and social performance), which are the three triple bottom sustainability dimensions. This study focuses on firms' economic dimension to reflect the overall picture of sustainability performance, resulting from environmental and social performance. Previous literature on the sustainability performance nexus has employed different proxies to measure firms' economic performance; however, there is no agreement on which proxies to use (Boakye et al., 2020). In general, proxies typically employed can be classified into two main categories: market-based and accounting-based measures. Some literature prefers market-based measures to accounting-based measures, as the latter may be significantly influenced by managerial discretion in applying accounting rules and past performance, whereas market-based measures are forward-looking, as they rely on anticipated future performance (Wagner, 2010). Therefore, for this study and following Konadu et al. (2021), Tobin's Q (measured as the natural logarithm of total market value divided by total assets) is applied as a proxy to measure firms' economic performance. The use of log (TQ) is highly recommended by (Hirsch & Seaks, 1993) as it improves the model interpretation and accuracy. This measure is widely acknowledged in the literature as a significant measure of economic performance (La Porta et al., 2002; Luo & Bhattacharya, 2006; Wagner, 2010). From the time-orientation perspective, Tobin's Q is preferred as it captures the long-term economic performance dimension compared to other accounting-based measures (Gaio & Henriques, 2020). From the value creation perspective, Tobin's Q is unique because it captures the value of shareholders, for both performance and valuation, in the long term (Jha & Rangarajan, 2020). In addition, Tobin's Q is regarded as a reliable indicator of a company's efficiency in utilising its assets in a sustainable manner, which echoes market expectations of firms' future profitability and growth opportunities (Antia et al., 2010; Buallay et al., 2020).

4.3.3 Independent variable: CEO myopia

As suggested by previous literature (e.g., Abernethy et al., 2019; Matta & Beamish, 2008), CEOs' decision horizons studies (as proxies for myopia) have employed several measures

derived from their age or closeness to retirement. CEOs' age is linked to conflicts regarding time horizons, as older executives may exhibit short-sighted behaviour that can obstruct efforts to enhance a company's long-term value (Oh et al., 2016). Moreover, their tenure, usually measured in years, is an important factor in evaluating the decision horizon concern (Antia et al., 2021). Therefore, and building on the work of Antia et al. (2010) and Jain et al. (2016), this paper measures the CEO's myopia as a combination of their age and tenure relative to the industry median, which serves as a proxy of managerial myopia. CEOs anticipate having a longer tenure when they are younger or newer than their peers in similar companies. Therefore, this paper uses CEOs' expected tenure relative to the industry standard to indicate managerial myopia that reflects the actual decision horizon. The use of industry-adjusted measures is more effective than standard decision horizon measures proposed in previous literature (e.g., Matta & Beamish, 2008) as it considers the industry's influence on both age and tenure. In comparison to mature industries, high-tech industries commonly include firms led by young CEOs or management teams. In addition, specific industries may experience a substantially high rate of turnover among senior executives. This is consistent with the view of Hambrick et al. (1993) and Lucier et al. (2002), which states that CEOs' myopia may vary significantly across industries. Consequently, the CEO myopia measure examines their position in relation to other CEOs in the industry based on two factors: the length of their current tenure and their age. Thus, the CEO myopia variable is defined as:

$$CEO\ Myopia_{i,t} = (CEO\ TENURE_{i,t} - CEO\ TENURE_{ind,t}) + (CEO\ AGE_{i,t} - CEO\ AGE_{ind,t})$$

where $CEO\ TENURE_{i,t}$ represents the number of years the CEO has held this position and $CEO\ AGE_{i,t}$ represents the age of the CEO who works for firm i in year t . $CEO\ TENURE_{ind,t}$ represents the industry median of CEO tenure and $CEO\ AGE_{ind,t}$ represents the industry median age of CEOs.

Noticing that this measure can have either a positive or negative value, since it is an industry-adjusted measure. A positive value indicates that the CEO is older and/or has spent a longer period in the current position than the median peer in the same industry, which implies a shorter expected tenure. Thus, it will lead to a shorter decision horizon. Conversely, a negative value reveals that the CEO is younger and/or has remained in position for a shorter time compared to the median CEO of competitor firms, which implies a longer expected tenure. Thus, it will lead to a longer decision horizon. Noticing that a higher value of myopia variable is associated with more myopic behaviour and a shorter career horizon.

4.3.4 Moderating variable: Long-term incentives

According to Hu et al. (2024), offering executives long-term incentives aligns their interests with the firm's overall value. Prior research (e.g., Edmans et al., 2017; Zeng et al., 2023) has discovered the connection between equity-based incentives and their effects on firms' long-term value. Wu et al. (2022) state that incorporating performance-vesting and time-vesting conditions in compensation schemes encourages managers to broaden their decision-making and adopt a long-term perspective. Recently, performance shares, which are equity-based long-term incentives, have become a vital part of managers' compensation packages (Holden & Kim, 2017). These shares vest once specific performance targets are met within a defined timeframe, thereby aligning CEOs' rewards directly with the strategic goals of the firm (Hodak, 2019). Additionally, stock options help mitigate CEOs' short-sighted behaviour and promote strategic decision-making (Alessandri et al., 2018). Consequently, in line with the work of Angelis & Grinstein (2015), Lee et al. (2018), and Van Wyk & Wesson (2021), the approximation of CEO long-term incentives is measured by the value of performance shares and stock options granted to CEOs, scaled by the total compensation as reported in ExecuComp.

4.3.5 Mediating variables: environmental and social performance

This study examines whether environmental or social performance mediates the relationship between myopia and economic performance. Consistent with Bourveau, Brochet, & Garel (2022) and Dyck et al. (2019), environmental and social performance is measured using the data gathered from the LSEG database (formerly Refinitiv or Asset4 Thomson Reuters), which covers comprehensive data for firms' environmental, social and governance variables (Haque & Ntim, 2018). LSEG's environmental scores cover three categories: resource use, emissions and innovation. Environmentally, the score reflects the firm's influence on natural systems, including land, air, water and the entire ecosystem. This is consistent with firms' effective implementation of best management practices, aligning with their efforts to reduce environmental risk and enhance long-term shareholder value (Biswas et al., 2018). Finally, LSEG's social scores cover four dimensions: community, human rights, product responsibility and workforce. According to Shaukat et al. (2016), these scores assess an organisation's ability to establish trust and loyalty among its employees, customers, and society through the implementation of effective management strategies. Noticing that both the environmental and social scores are determined by assigning a specific value based on the weight of each

dimension they cover. The overall score is represented as a percentage ranging from 0% to 100%, where zero signifies poor environmental or social performance, and 100% reflects exceptional environmental or social performance within this range (LSEG, 2023).¹⁸

4.3.6 Control variables

To enhance the model's validity and avoid any misspecification, this paper incorporates three sets of control variables. The first set is related to firm-level characteristics (obtained from both CompuStat and LSEG databases), the second set is related to executive-level characteristics (obtained from the ExecuComp database), and the third set is related to board-level characteristics (obtained from the LSEG database). Firm-level control variables include firm size, firm age, leverage, return on assets (ROA), capital intensity, profitability, and capital expenditure. Consistent with Abang'a et al. (2022) and Tingbani et al. (2020), this study controls for firm size because larger firms, due to their greater resource availability, may exhibit improved sustainability performance compared to smaller firms. In addition, following Abang'a et al. (2022) and Thomas et al. (2022), firm age is incorporated because older firms are more well-developed and become more aware of sustainable activities (Withisuphakorn & Jiraporn, 2016). Leverage ratio is also included as it may have an impact on firms' sustainability performance (Haque & Ntim, 2018; Lu et al., 2024). Consistent with Cao et al. (2023), Haque & Ntim (2018) and Kordsachia et al. (2022), this paper also controlled for different financial ratios (ROA, profitability, and capital intensity) to account for differences in operational efficiency and financial health. Finally, this study controls for a firm's capital expenditure (Haque & Ntim, 2018; Tanthanongsakkun et al., 2022). For executive-level characteristics, this study controls for CEO ownership, as it has been shown to impact sustainability performance (Chen et al., 2019; Hussain et al., 2023). Finally, the study controls for CEO gender and duality as it may influence firms' sustainability performance significantly (Chu et al., 2023; Han et al., 2019). For board-level characteristics, this study controls for board size, the proportion of independent directors and the existence of a sustainability committee

¹⁸ In detail, the environmental pillar is calculated based on the following themes (emissions, waste, biodiversity, management systems, product innovation, green revenues, water, energy, sustainable packaging and environmental supply chain). In contrast, the social pillar is calculated based on the following themes (community, human rights, responsible marketing, product quality, data privacy, diversity, career development, career training, working conditions and health & safety) (LSEG, 2023).

because these governance variables have been generally investigated in governance-sustainability literature (Taurigana & Chithambo, 2015; Konadu et al., 2021).

4.3.7 Empirical models

This study employs a series of regression-based models to examine the direct, moderating and mediating relationships between CEO myopia and economic performance. First, an ordinary least squares (OLS) regression is employed to test the first hypothesis. Second, to examine the moderating impact of long-term incentives, an interaction term (Myopia X LTI) is introduced in the regression model for hypothesis 2. In addition, for testing Hypothesis 3, the paper uses moderated multiple regression models with three-way interaction terms to capture sectoral differences. Finally, this study employs causal mediation analysis to examine the mediating role of environmental and social performance in hypotheses 4a and 4b, as illustrated in Figure 4.1. The *Sobel-Goodman* test of mediation in Stata is used, which divides the overall impact of CEO myopia into direct and indirect effects. Noticing that this study incorporates industry and year-fixed effects by using dummy variables to control for unobserved heterogeneity specific to different years and industries among the sample firms. Furthermore, robust standard errors were utilised to address any potential autocorrelation and heteroscedasticity. As a result, this study estimates the following regression models:

$$TQ_{i,t} = \alpha + \beta_1 Myopia + \beta_2 Size + \beta_3 Age + \beta_4 Lvg + \beta_5 ROA + \beta_6 Cap_{Int} + \beta_7 Prof + \beta_8 Capx + \beta_9 Ownership + \beta_{10} Gender + \beta_{11} Dual + \beta_{12} BS + \beta_{13} ID + \beta_{14} SC + Year_{FE} + Industry_{FE} + \varepsilon_{i,t} \quad (1)$$

$$TQ_{i,t} = \alpha + \beta_1 Myopia + \beta_2 LTI + \beta_3 (Myopia \times LTI) + \beta_4 Size + \beta_5 Age + \beta_6 Lvg + \beta_7 ROA + \beta_8 Cap_{Int} + \beta_9 Prof + \beta_{10} Capx + \beta_{11} Ownership + \beta_{12} Gender + \beta_{13} Dual + \beta_{14} BS + \beta_{15} ID + \beta_{16} SC + Year_{FE} + Industry_{FE} + \varepsilon_{i,t} \quad (2)$$

$$TQ_{i,t} = \alpha + \beta_1 Myopia + \beta_2 LTI + \beta_3 Sector + \beta_4 (Myopia \times LTI) + \beta_5 (Myopia \times Sector) + \beta_6 (LTI \times Sector) + \beta_7 (Myopia \times LTI \times Sector) + \beta_8 Age + \beta_9 Lvg + \beta_{10} ROA + \beta_{11} Cap_{Int} + \beta_{12} Prof + \beta_{13} Capx + \beta_{14} Ownership + \beta_{15} Gender + \beta_{16} Dual + \beta_{17} BS + \beta_{18} ID + \beta_{19} SC + Year_{FE} + Industry_{FE} + \varepsilon_{i,t} \quad (3)$$

$$Env_{i,t} \text{ or } Soc_{i,t} = \alpha + \beta_1 Myopia + \beta_2 Size + \beta_3 Age + \beta_4 Lvg + \beta_5 ROA + \beta_6 Cap_{Int} + \beta_7 Prof + \beta_8 Capx + \beta_9 Ownership + \beta_{10} Gender + \beta_{11} Dual + \beta_{12} BS + \beta_{13} ID + \beta_{14} SC + Year_{FE} + Industry_{FE} + \varepsilon_{i,t} \quad (4)$$

$$\begin{aligned}
TQ_{i,t} = & \alpha + \beta_1 Myopia + \beta_2 Env_{i,t} \text{ or } Soc_{i,t} + \beta_3 Size + \beta_4 Age + \beta_5 Lvg + \beta_6 ROA + \beta_7 Cap_{int} + \beta_8 Prof \\
& + \beta_9 Capx + \beta_{10} Ownership + \beta_{11} Gender + \beta_{12} Dual + \beta_{13} BS + \beta_{14} ID + \beta_{15} SC + Year_{FE} \\
& + Industry_{FE} + \varepsilon_{i,t}
\end{aligned}
\tag{4}$$

Table 4.1 illustrates the definition of each variable included in the study.

[FIGURE 4.1 ABOUT HERE]

[TABLE 4.1 ABOUT HERE]

4.4 Results and discussion

4.4.1 Descriptive statistics

Table 4.2 presents descriptive statistics for the main variables in this study, comprising 11,828 firm-year observations for the full sample, 10,483 observations for the non-financial sector, and 1,345 observations for the financial sector. The mean value of economic performance is 1.087 for the whole sample, 1.118 for non-financial companies and 0.85 for financial companies. The t-test of equality of means demonstrates that these differences are statistically significant. Overall, this indicates that financial firms are lagging behind non-financial firms in economic performance.

For the myopia variable, the positive mean value (2.402, 2.338 and 2.899) demonstrates that CEOs have shorter expected tenure than the median in the full sample, non-financial sector and financial sector, respectively, which may signal a higher short-term strategic viewpoint among managers. In addition, the myopia variable is slightly larger for financial firms, which is consistent with Lai et al. (2024) in that managers in financial firms may exhibit more myopic behaviour. In terms of long-term incentives, non-financial firms (mean = 0.822) have a higher mean of incentives than financial firms (mean = 0.648). This suggests that CEOs in financial companies have substantially lower incentives, which may affect their strategic decisions and long-term focus. To compare the two sectors, a t-test for differences in means is performed between financial and non-financial companies. As shown in Table 4.2, the results indicate that the differences in means between the two sectors are statistically significant (at the 1% level) for most of the variables examined in the study.

[TABLE 4.2 ABOUT HERE]

4.4.2 Correlation analyses

Table 4.3 illustrates the correlation matrix among all variables used in the models. It shows that no serious potential multicollinearity issues exist where the highest correlation in the analysis is still below the threshold value (0.8 or 0.9), as suggested by Field (2013). Although no significant correlation is noticed, some multicollinearity may still exist. Therefore, the variance inflation factors (VIF) test is also performed to detect any multicollinearity issues related to the models used. Table 4.4 demonstrates the VIF values, which are lower than 10, suggesting that multicollinearity is less likely to be an issue for the models under study.¹⁹

The results indicate a significant test statistic for models under study, suggesting an issue of heteroscedasticity. Noticing that if this issue exists and is not controlled, the drawn conclusions and results may become biased and misleading. According to Berry & Feldman (1985), several statistical techniques may be used (like variable transformation or robust standard errors) to control the heteroscedasticity issue. Therefore, this study utilises the robust feature in STATA 18 and applies a logarithmic transformation to some variables (Tobin's Q, firm size and capital intensity), in addition to using year and industry-fixed effects to control for the issue of heteroscedasticity. Finally, variables are winsorised at the 1st and the 99th percentiles to minimise the effect of possible outliers.

[TABLE 4.3 ABOUT HERE]

[TABLE 4.4 ABOUT HERE]

4.4.3 Main results

Table 4.5 presents the baseline results for the relationship between CEO myopia and firms' economic performance, along with the three control variable sets (firm-level, executive-level, and board-level characteristics), incorporating year and industry fixed effects. Columns 1, 2, 3, and 4 report the results with Tobin's Q as a proxy for economic performance. Specifically, column 1 includes firm-level characteristics as control variables, and column 2 consists of all control variables (firm-level, executive-level and board-level characteristics). Columns 3 and 4 use Tobin's Q in (t+1) and (t+2), respectively. The R-squared values for the four models are quite similar, which suggests that the proposed models explain (almost) 40%, 40%, 37%, and

¹⁹ The VIF test also illustrates that the maximum and the average VIF values are less than 10 for both non-financial and financial samples.

35% of the variance in economic performance. In addition, the F-value for all models is significant (at the 1% level), suggesting that the models are generally well-specified.

Economically, Columns 1, 2, 3, and 4 illustrate that CEO myopia has a significant negative relationship with Tobin's Q, which supports the paper's first hypothesis (H1a). Specifically, in column 1, with control for firm-level characteristics only, the estimated coefficient for Myopia is significant at the 5% level and negative as anticipated ($\beta_1 = -0.001$ and $t\text{-statistic} = -2.088$). With controlled for executive-level and board-level characteristics in column 2, the coefficient increases to significant at the 1% level with $\beta_1 = -0.001$ and $t\text{-statistic} = -3.702$. This indicates that a one-unit increase in the myopia variable results in a reduction in economic performance of approximately 0.1 percentage points. This impact may become considerable when aggregated across multiple companies or over time. In addition, Columns 3 and 4 use lagged Tobin's Q ($t+1$ & $t+2$) in order to adopt a longer time horizon that represents long-term sustainability outcomes, and the relation is also significant and negative at the 1% level. Although managerial myopia is induced by strong profitability pressures (Kolasinski & Yang, 2018), the results indicate that it aligns with a decline in firms' economic performance. Lai et al. (2020) state that CEOs with myopic behaviour fail to produce strong relationships with the external environment, leading to poorer economic performance. This short-sighted view restricts managers from efficiently distributing a firm's available resources to balance long- and short-term activities (e.g., Benabou & Tirole, 2010; Carpenter et al., 2004). This echoes the findings of prior literature (e.g., Cao et al., 2023; Kolasinski & Yang, 2018; Lai et al., 2020), indicating that managerial myopia (shorter CEO horizon) is associated with lower firm valuation and economic performance, which is consistent with H1a. Simultaneously, according to the upper-echelon theory, the above results imply that the selection process of top management should consider not only their demographic characteristics but also their cognitive traits to develop managers with longer-term perspectives (Choi, Kim, & Lee, 2020).

Regarding H1b, this paper conducts a Seemingly Unrelated Estimation (SUEST) test to examine whether the impact of CEO myopia differs between financial and non-financial firms. In Table 4.5, column 2 illustrates that the chi-squared statistic for economic performance ($\chi^2 = 16.94$) is statistically significant at the 1% level. The result provides statistical evidence that the impact of CEO myopia on economic performance differs significantly between non-financial and financial firms. This is consistent with Lai et al. (2024) in that the sectoral context impacts the relationship between CEO myopia and firms' economic performance.

[TABLE 4.5 ABOUT HERE]

Second, Table 4.6 illustrates the moderating impact of long-term incentives on the relationship between CEO myopia and economic performance. The model displays adequate explanatory power, with R-squared explaining almost 40% of the variance in economic performance. The F-value is significant (at the 1% level), indicating that the three models are generally well-specified.

Column 1 illustrates that CEO myopia has a significant and negative relationship with economic performance, which acknowledges the adverse impact of myopic behaviour on firms' sustainability performance (Flammer & Bansal, 2017). Additionally, the coefficient for long-term incentives (with $\beta = 0.022$, t-statistic = 6.05) is significant and positive, indicating that higher incentives are associated with higher economic performance. The interaction term between myopia and long-term incentives is significant and positive at the 5% level ($\beta = 0.001$, t-statistic = 2.478). Therefore, this result supports the acceptance of hypothesis 2. These results echo the view of upper-echelon theory, which posits that CEOs' cognitive biases, such as myopia, play a significant role in shaping firms' strategic outcomes. In addition, long-term incentives play a significant moderating role in mitigating CEOs' myopic behaviour. Fundamentally, the conclusion that managerial myopia adversely affects firms' sustainability performance reflects the inherent traditional managerial agency conflicts (Ding et al., 2024). Therefore, long-term incentives help alleviate principal-agent problems and align CEOs' interests with firms' long-term value by mitigating the influence of myopia on long-term economic performance.

Column 2 represents the moderating impact of long-term incentives for non-financial firms. The interaction term (Myopia X LTI) is positive but insignificant for economic performance (with $\beta = 0.000$, t-statistic = 1.252). However, Column 3 illustrates the moderating impact of long-term incentives in the financial sector with a significant and positive effect at the 1% level ($\beta = .001$, t-statistic = 3.720). Hence, these results originally support the acceptance of hypothesis 3. Initially, these results show that long-term incentives may effectively differ in addressing the myopic behaviour issue for economic performance between the two sectors. This result may indicate that, particularly for non-financial firms, enhancing the firms' economic sustainability can be governed by restructuring mechanisms related to the incentive perspective (Ding et al., 2024). In addition, regarding the third hypothesis, this study employs a Wald chi-square test for equality of coefficients across non-financial and financial sectors,

where the chi-squared statistic for economic performance ($\chi^2 = 2.87$) is significant at the 10% level. This result provides statistical evidence that the moderating impact of long-term incentives on the relationship differs significantly between non-financial and financial firms. To confirm this difference, Column 4 illustrates the inclusion of a three-way interaction variable (Sector X Myopia X LTI). The F-statistic is statistically significant at the 1% level, indicating that including the three-way interaction significantly improves the explanatory power of the model of hypothesis 3. The three-way interaction is positive and statistically significant at the 10% level for the economic performance ($\beta = 0.001$, $t = 1.652$), supporting the third hypothesis. As the firm dummy variable is recorded as one for financial and zero otherwise, the positive coefficients indicate that the moderating effect of long-term incentives on the myopia-economic sustainability relationship is stronger in financial firms compared to non-financial firms. In other words, long-term incentives play an important role in governance for the financial sector, mitigating CEOs' short-termism and reducing agency conflict issues. Overall, these findings emphasise the significance of incentive structures in affecting managers' behaviour and companies' outcomes, which align with agency theory and the upper-echelon view. Despite the high intensity of financial pressures, governance mechanisms in financial firms help align the interests of CEOs and stakeholders (Adu et al., 2022). In addition, according to Ongena et al. (2022), this alignment of interests may be subject to managers' personal traits (risk-taking behaviour) in financial firms, which is consistent with the upper-echelon perspective.

[TABLE 4.6 ABOUT HERE]

Finally, to examine the fourth set of hypotheses, this paper tests whether the impact of CEO myopia on economic performance is mediated by environmental and social performance. Environmentally, the results show that CEO myopia has a significant negative relation with environmental performance ($\beta_1 = -0.034$ and $t\text{-statistic} = -2.21$), reflecting the role of myopic CEOs in worsening and non-prioritising environmental strategies. In addition, environmental performance has a significant positive relation with economic performance ($\beta_1 = 0.002$ and $t\text{-statistic} = 11.68$), indicating that higher environmental performance leads to better market valuation and economic sustainability. Based on the Sobel test in Table 4.7, the indirect effect of myopia on economic performance through environmental performance is statistically significant. In addition, the direct effect of myopia on economic performance is still significant and negative, and the total effect also illustrates a significant negative relationship, which leads

to the acceptance of H4a. Finally, almost 5.6% of the total effect of myopia on economic performance is mediated by environmental performance, which indicates the consequences of ignoring environmental activities on firms' economic performance.

Regarding the mediating role of social performance, the results illustrate that CEO myopia is significantly and negatively related to firms' social performance ($\beta_1 = -0.08$ and $t\text{-statistic} = -6.32$), reflecting the role of myopic CEOs in threatening social strategies as well. Additionally, similar to the environmental performance, social performance is significantly and positively related to economic performance ($\beta_1 = 0.002$ and $t\text{-statistic} = 15.54$), confirming social initiatives' positive impact on firms' economic sustainability. As illustrated in Table 4.7, the indirect effect of myopia on economic performance through social performance is significant and negative. Additionally, the direct effect and the total effect are also significant and negative, which supports the acceptance of H4b. Noticing that 21.6% of the total effect of CEO myopia on economic performance is mediated through firms' social performance.

[TABLE 4.7 ABOUT HERE]

4.4.4 Discussion

In general, previous results suggest that managerial myopia is associated with a decline in firms' economic sustainability, although intense profitability pressures can induce it. This short-sighted view restricts managers from efficiently distributing a firm's resources to balance long- and short-term activities, which is consistent with the findings of prior literature (e.g., Cao et al., 2023; Lai et al., 2020). In addition, the study echoes prior studies that show that corporate governance mechanisms have a substantial impact in mitigating CEOs' myopic behaviour related to short-term performance (Ding et al., 2024; Lee et al., 2018). By synthesising the agency theory and the upper-echelon perspective, the results explore how long-term incentives act in the interplay between managerial myopia and economic sustainability performance.

In fact, the findings indicate that the effectiveness of long-term incentives differs significantly between the financial and non-financial sectors. The significant moderating influence in the financial sector suggests that long-term incentives play a fundamental role in ensuring that managerial actions align with the full picture of economically sustainable practices. This is consistent with Lee & Hwang (2019), who state that long-term incentives (such as stock options) are increasingly employed to address the agency problem within financial firms. The

distinct regulatory framework, heightened stakeholder oversight, and the intangible characteristics of financial services may further emphasise the significance of long-term strategic planning and sustainability considerations (Kartadjumena & Rodgers, 2019; Mansour et al., 2023). Managers within financial firms behave more myopically and concentrate more on short-term performance compared to those in non-financial companies (Agarwal et al., 2018; Lai et al., 2024). In addition, they engage in more short-termism and risk-taking behaviour, which is considered one of the main factors that led to the financial crisis (Akbar et al., 2017). Therefore, due to the critical role that financial firms play in maintaining economic stability, long-term incentives act as a fundamental governance mechanism in the financial sector. As a result, CEOs in financial institutions who receive long-term rewards are more inclined to mitigate short-term myopic behaviours that negatively impact firms' economic performance.

Finally, the path analysis results suggest that environmental and social performance mediate the relationship between CEO myopia and economic performance. When CEOs' decision horizons shorten with age and tenure, they are more inclined to exhibit managerial myopia and reduce sustainability investments, which will be reflected in firms' economic performance. This is consistent with the SDG framework, outlined by Rockström and Sukhdev (2022), which suggests that economic value generation depends on prior development in environmental and social areas. In addition, this is consistent with the view of stakeholder-agency theory, in that ignoring commitments related to environmental or social responsibility undermines stakeholders' trust, which may harm a firm's long-term economic value.

4.4.5 Robustness test

4.4.5.1 Endogeneity

This paper acknowledges the potential existence of certain statistical limitations that may affect the analysis. The relation between CEO myopia and economic performance could be endogenous. Firms with high economic performance may have an advantage in selecting CEOs who consider longer decision horizons, indicating less myopic perspectives regarding expected tenure. Furthermore, additional factors could likely correlate with CEO myopia; thus, depending solely on OLS regression might result in biased regression coefficients. In alignment with the argument of Adams & Ferreira (2009), this paper employs 2SLS regression to estimate the coefficients and mitigate potential endogeneity issues.

Initially, the Durbin-Wu-Hausman test is conducted to examine endogeneity. Both the chi-squared (χ^2) and F-statistics exhibit a significant p-value at the 1% level. This suggests that CEO myopia is an endogenous variable, supporting the use of the instrumental 2SLS regression method, since OLS regression might yield inconsistent and biased estimates. Table 4.8 presents the outcomes of the 2SLS regression, while column 1 illustrates the first-step regression results. The first-stage regression contains an instrumental variable, “*employment opportunity*”, that is related to the endogenous variable (CEO myopia) but not correlated with the error term. Following Antia et al. (2010) & (2021), this paper uses *employment opportunity*, which is computed as the proportion of other CEOs who receive higher pay than the CEO within the same industry. These might reduce short-termism behaviour, resulting in extended decision-making timelines that could influence corporate policies (Aktas et al., 2021). Overall, the job market influences the CEO’s decision-making timeline, impacting long-term strategies. Thus, the employment opportunity acts as a stand-in for the presence of favourable job chances in the industry, which is anticipated to affect CEOs’ myopic behaviour. When there are more employment opportunities in the industry, CEOs are more inclined to avoid short-term actions regarding their firms’ sustainable strategies aimed at boosting competitiveness, enhancing their individual reputations, and expanding future external job options.

[TABLE 4.8 ABOUT HERE]

Column 1 illustrates that the IV (*employment Opportunity*) has a strongly significant (at the 1% level) and negative correlation with the myopia variable. This aligns with the earlier explanation regarding how employment opportunities influence CEOs’ short-term focus, where they tend to be less myopic when job prospects exist. The Kleibergen-Paap Wald F-statistic = 18.18 with a p-value < 0.000, which is higher than the Stock-Yogo ID test value of 16.38, confirming the instrumental variable's validity. The predicted value of the myopia from the first-step regression is used in the second step as the independent variable. Column 2 illustrates that the predicted myopia remains negative and statistically significant with the economic performance. This confirms the main result that managerial myopia significantly affects firms’ long-term economic performance.

4.4.5.2 Alternative measures

In this section, the paper conducts additional robustness checks and uses alternative measures for the myopia proxy, economic performance and long-term incentives to ensure the

consistency of the results. First, and following Li et al. (2021), the CEO myopia variable is constructed using industry average values rather than the industry median values when adjusting for CEO tenure and age, as illustrated in Table 4.9. Column 1 shows that the estimated coefficient on the myopia-average variable is significantly negative, indicating an adverse relationship with economic performance. Column 2 shows that the moderating impact of long-term incentives is significant and positive. Columns 3 and 4 illustrate the results after separating the sample into non-financial and financial firms, respectively, and the results still hold. Thus, these analyses show that the main results with the moderating outcomes are robust and hold.

[TABLE 4.9 ABOUT HERE]

Finally, two alternative measures (ROA and ROE) are employed to proxy firms' economic performance. This is performed to evaluate the differences in firms' economic performance from accounting-based and marketing-based measures perspectives. Table 4.10 illustrates that the results are still robust and consistent with the baseline regression. Columns 1 and 2 show that the relation is significant and negative with the CEO myopia proxy used in this study.

[TABLE 4.10 ABOUT HERE]

To encourage the alignment between executive compensation and long-term strategic decisions, companies may incorporate ESG-financial performance criteria into their remuneration structures. Therefore, and following Ikram et al. (2023), Maas & Rosendaal (2016) and Flammer et al. (2019), another proxy for long-term sustainability incentives is gathered from the LSEG database, which is a binary variable of whether the company has an ESG-financial performance compensation policy or not. Therefore, by implementing this incentive policy, companies may demonstrate a strategic commitment to incorporating long-term sustainable performance into their executives' incentive structures. Table 4.11 illustrates that the results are robust with the baseline moderating analysis for the economic performance, consistent with the view of agency theory.

[TABLE 4.11 ABOUT HERE]

4.4.5.3 Additional analysis: Times of uncertainty

Finally, to provide additional insight into the impact of long-term incentives on the myopia-economic performance nexus, further tests are conducted to investigate whether the impact differs during times of uncertainty. According to Hubbard (2014), uncertainty refers to a

scenario with insufficient knowledge, making it infeasible to define the present situation and predict future outcomes. The sample years include two periods of uncertainty: the Financial Crisis (2007-2009) and the COVID-19 pandemic (2020-2021). To examine this time trend, the sample is divided into four sub-samples (non-financial crisis & financial crisis) and (non-COVID & COVID). Table 4.12 illustrates that, in non-financial crisis years, the interaction term (myopia X LTI) for the model remains consistent with the baseline result. However, in the financial crisis, the model became insignificant, which indicates that these incentives may not be effective in mitigating CEOs' myopia, as they may respond to immediate threats and enter a "survival mode" during abnormal times. This is consistent with Jia & Li (2020), who illustrate that firms exhibit more short-term focus and neglect long-term sustainable investments during times of uncertainty. The same pattern exists when exploring the effect of COVID-19 years. The interaction term remains significant and positive across the economic dimension in the non-COVID period and becomes insignificant during the pandemic period.²⁰

[TABLE 4.12 ABOUT HERE]

4.5 Summary and conclusion

The paper investigates how managerial myopia is detrimental to corporate economic sustainability from the perspective of the triple bottom line approach. Notably, it examines the impact of CEOs' myopia (proxied by their age and tenure) on economic performance, the moderating role of long-term incentives, sector differences and the mediating roles of environmental and social performance. Drawing on upper-echelon theory and stakeholder-agency theory, the paper examines a sample from the S&P 1500 spanning the period from 2002 to 2022.

The results indicate that CEOs' short-termism significantly and negatively impacts firms' economic performance, and these impacts differ between financial and non-financial firms. For both sectors, this conceptualises myopia as a key behavioural factor affecting resource allocation and strategic orientation. In addition, the results show that long-term incentives effectively reduce CEOs' myopic behaviour towards economic performance. Interestingly, the results provide statistical evidence that these incentives are more impactful in mitigating the effect of managerial myopia in the financial sector. Due to increased short-term pressures,

²⁰ Sector-based analysis is performed for the two uncertainty periods. It produces broadly similar results for financial and non-financial firms.

managers in financial firms tend to act more myopically, leading to higher agency costs (Akbar et al., 2017). Therefore, consistent with the agency theory and the upper-echelon view, this makes long-term incentives more effective in mitigating CEOs' myopic attributes and aligning their interests with firms' long-term value. Lastly and importantly, the research indicates that both environmental and social performance mediate the relation between myopia and economic performance. This insight aligns with the SDGs view, which argues that economic sustainability relies on progress in environmental and social areas.

The paper presents significant practical implications for how corporate governance mechanisms enhance long-term strategic planning. Organisations may emphasise the negative consequences of short-term orientation and the significance of tailoring executive incentive schemes to address the distinct challenges and agency costs associated with different sectors. Both non-financial and financial companies implement sustainable initiatives to improve their strategic outcomes, align with regulatory obligations and attain legitimacy (Soana, 2024). In this vein, the findings hold considerable importance for policymakers, businesses, and professionals within the financial sector. Due to the unique characteristics of financial firms, this provides valuable insights into adopting performance-vesting and time-vesting incentives and how they can mitigate the problem of CEOs with short-career horizons in this sector. Furthermore, the results illustrate the important role of environmental and social initiatives in shaping firms' economic performance, as illustrated in the SDG wedding cake model (see Appendix A, Fig. B). This insight allows companies and policymakers to focus on more effective schemes integrating sustainability into financial decision-making. Building on this, policymakers should develop strategies that encourage investments in sustainable activities and enhance transparency in reporting on sustainability activities (e.g., the use of the Global Reporting Initiative "GRI") that align with the triple bottom line approach. In addition, regulatory authorities might view establishing a sustainability committee as a mandatory requirement for financial and non-financial companies to improve sustainable practices within their corporate governance. Finally, the board of directors may establish policies and promote collaboration between the sustainability and compensation committees to influence sustainable business practices in accordance with the triple bottom line approach.

Although this paper offers important perspectives on corporate governance mechanisms and the myopia-economic performance nexus, it is subject to specific common limitations. First, due to the availability of CEO data, this paper's analysis is based on a U.S. firm sample. Future

research may generalise the sample and include different economies with varying accounting practices and regulations. This aligns with Katmon et al. (2019), as developing countries often exhibit weaker governance mechanisms and legal protections, which can influence firms' expectations regarding the concept of sustainability. Second, this study primarily depends on secondary data. For this paper, the moderation and mediating analyses discover the impact of CEO myopia on economic sustainability. Although the findings illustrate that this myopic behaviour negatively affects firms' economic performance and long-term incentives positively mitigate this effect, the analysis is still observational. Therefore, future studies can apply other research methodologies (e.g., questionnaires, interviews) with firms' executives, which may offer in-depth insights regarding the effectiveness of long-term incentives among different sectors. Finally, given the inconsistent results in non-financial firms, future studies may conduct a deeper investigation into the subsectors of this broad category. Agency costs and information asymmetries may vary among different non-financial sectors, which could influence the effectiveness of long-term incentives in mitigating CEOs' myopic behaviour.

List of Tables

Table 4.1 Definition of variables

Variable	Symbol	Definition	References	Database
Dependent variables				
Economic sustainable performance	TQ	The natural logarithm of total market value* over the book value of total assets *computed as book value of total assets plus market value of common stock minus the sum of book value of common stock and deferred taxes	Flammer et al. (2019) Bourveau, Brochet, & Garel (2022) Hirsch & Seaks (1993)	CompuStat
Independent Variable				
CEO myopia	Myopia	The sum of deviations in CEO age and tenure from the industry median (higher values indicate shorter expected tenure and more myopic behaviour)	Antia et al. (2010) Lee et al. (2018) Antia et al. (2021)	ExecuComp
Moderating variable				
Long-term incentives	LTI	The value of performance shares and stock options awarded to CEOs scaled by total compensation	Angelis & Grinstein (2015) Van Wyk & Wesson (2021)	ExecuComp
Control variables				
<u>Firm-level</u>				
Firm age	Age	Number of years since incorporation	Thomas et al. (2022) Abang'a et al. (2022)	LSEG (p.k.a Refinitiv)
Firm size	Size	Natural logarithm of total assets	Abang'a et al. (2022) Tingbani et al. (2020)	CompuStat
Leverage	Lvg	Total liabilities divided by total assets	Lu et al. (2024) Haque & Ntim (2018)	CompuStat
Return on Assets	ROA	Net income divided by total assets	Cao et al. (2023) Kordsachia et al. (2022)	CompuStat
Capital intensity	Cap_int	Natural logarithm of total assets divided by total sales	Haque & Ntim (2018) Oh et al. (2016)	CompuStat
Profitability	Prof	Earnings before interest and taxes divided by total sales	Tanhanongsakkun et al. (2022) Haque & Ntim (2018)	CompuStat
Capital expenditure	Capx	Capital expenditure divided by total assets	Tanhanongsakkun et al. (2022) Haque & Ntim (2018)	CompuStat
<u>Executive-level</u>				
Percentage of ownership	Ownership	Shares held by CEO divided by total shares outstanding	Hussain et al. (2023) Chen et al. (2019)	ExecuComp
CEO-gender	Gender	Dummy variable equal 1 if male and 0 otherwise	Chu et al. (2023) Han et al. (2019)	ExecuComp
CEO-duality	Dual	Dummy variable equal 1 if the chairman is also the CEO and 0 otherwise	Fan et al., (2024) Oh et al., (2016)	ExecuComp
<u>Board-level</u>				
Board size	BS	Natural logarithm of board size	Tauringana & Chithambo (2015)	LSEG (p.k.a Refinitiv)
Independent director %	ID	The percentage of independent board members	Tauringana & Chithambo (2015)	LSEG (p.k.a Refinitiv)
Sustainability committee	SC	Dummy variable equal 1 if the company has sustainability committee and 0 otherwise	Konadu et al., (2021)	LSEG (p.k.a Refinitiv)

Table 4.2 Descriptive statistics

Full sample (N = 11828)					Non-financial sector (N = 10483)				Financial sector (N = 1345)				t-test
Variables	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	Diff in means
Economic	1.087	.378	.609	2.368	1.118	.373	.609	2.368	.847	.32	.609	2.368	0.267***
Myopia	2.402	11.754	-20	43	2.338	11.722	-20	43	2.899	11.995	-20	43	0.092
LTI	.802	.843	0	4.477	.822	.845	0	4.477	.648	.814	0	4.477	.0137***
Size	8.707	1.542	4.351	12.828	8.572	1.478	4.351	12.828	9.758	1.631	4.351	12.828	-1.392***
Age	34.006	27.628	1	116	34.45	28.49	1	116	30.549	19.315	1	105	5.087***
Lvg	.602	.222	.099	1.23	.578	.214	.099	1.23	.79	.187	.099	1.23	-.234***
ROA	.054	.077	-.386	.274	.056	.079	-.386	.274	.032	.053	-.256	.274	0.021***
Cap_int	1.084	.147	.844	1.629	1.053	.11	.844	1.629	1.319	.182	.844	1.629	-0.267***
Profitability	.159	.172	-.872	.633	.133	.151	-.872	.633	.358	.194	-.872	.633	-0.190***
Capx	.068	.109	0	.714	.074	.114	0	.714	.024	.027	0	.302	0.048***
Ownership	1.442	4.382	.001	34.478	1.477	4.497	.001	34.478	1.177	3.343	.001	34.478	0.768***
Gender	.951	.215	0	1	.948	.222	0	1	.976	.152	0	1	-0.0176***
Duality	.635	.481	0	1	.633	.482	0	1	.653	.476	0	1	-0.02*
Board size	2.274	.23	1.609	2.833	2.259	.222	1.609	2.833	2.391	.255	1.609	2.833	-0.139***
Perc_indep	81.779	10.764	38.46	93.75	81.706	10.801	38.46	93.75	82.348	10.457	38.46	93.75	-0.559**
Sust_comm	.469	.499	0	1	.49	.5	0	1	.31	.463	0	1	0.138***

Note: This table presents the descriptive statistics for each variable used in the study. The definition of each variable is presented in Table 4.1 (n = 11828 for the full sample, n = 10483 for the non-financial sector and n = 1345 for the financial sector)

Table 4.3 Correlation analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Economic	1.000										
(2) CEO myopia	-0.008	1.000									
(3) LT incentives	0.116***	-0.059***	1.000								
(4) Firm size	-0.299***	-0.027***	0.235***	1.000							
(5) Firm age	-0.067***	0.015**	0.080***	0.190***	1.000						
(6) Leverage	-0.249***	-0.071***	0.051***	0.455***	0.049***	1.000					
(7) ROA	0.338***	0.048***	0.080***	0.015**	0.082***	-0.218***	1.000				
(8) Capital intensity	-0.285***	0.000	-0.051***	0.237***	-0.125***	0.278***	-0.306***	1.000			
(9) Profitability	-0.013*	0.033***	0.044***	0.276***	0.003	0.106***	0.488***	0.317***	1.000		
(10) Capital expenditure	-0.074***	0.007	0.032***	0.083***	0.027***	-0.012*	-0.136***	0.144***	-0.100***	1.000	
(11) CEO ownership	0.095***	0.327***	-0.155***	-0.252***	-0.078***	-0.175***	0.039***	-0.113***	-0.060***	-0.005	1.000
(12) CEO gender	-0.006	0.067***	-0.025***	-0.020***	-0.024***	-0.006	-0.012*	0.014**	0.005	-0.024***	0.021***
(13) CEO duality	-0.020**	0.169***	-0.073***	0.131***	0.119***	0.041***	0.057***	-0.038***	0.064***	0.022***	0.132***
(14) Board size	-0.195***	-0.059***	0.116***	0.575***	0.214***	0.306***	-0.032***	0.065***	0.107***	-0.015*	-0.166***
(15) Per_indep											
(16) Sust_committee											

Variables	(12)	(13)	(14)	(15)	(16)
(1) Economic					
(2) CEO myopia					
(3) LT incentives					
(4) Firm size					
(5) firm age					
(6) Leverage					
(7) ROA					
(8) Capital intensity					
(9) Profitability					
(10) Capital expenditure					
(11) CEO ownership					
(12) CEO gender	1.000				
(13) CEO duality	0.053***	1.000			
(14) Board size	0.011	0.107***	1.000		
(15) Per_indep	-0.034***	-0.078***	0.153***	1.000	
(16) Sust_committee	-0.038***	-0.024***	0.242***	0.233***	1.000

Note: The definition of each variable is reported in Table 4.1. *** significance at 1%, ** significance at 5%, * significance at 10%

Table 4.4 Variance Inflation Factor (VIF)

	Direct model		Interaction model	
	VIF	1/VIF	VIF	1/VIF
Myopia	1.187	.842	1.597	.626
Size	2.175	.46	2.199	.455
Age	1.159	.863	1.162	.861
Leverage	1.454	.688	1.454	.688
ROA	1.216	.822	1.217	.822
Capital Int.	2.789	.359	2.819	.355
Profitability	1.036	.966	1.036	.965
Capx	1.645	.608	1.648	.607
Ownership	1.26	.794	1.27	.787
Gender	1.023	.977	1.024	.977
Duality	1.111	.9	1.115	.897
Board size	1.656	.604	1.665	.601
Perc_indep	1.244	.804	1.211	.826
Sust_comm	1.557	.642	1.546	.647
LT incentives			1.057	.946
Myopia X LTI			1.383	.723
Mean VIF	1.465		1.462	

Table 4.5 Baseline results

VARIABLES	(1) TQ	(2) TQ	(3) TQ(t+1)	(4) TQ(t+2)
Myopia	-0.001** (-2.088)	-0.001*** (-3.702)	-0.001*** (-3.324)	-0.001*** (-3.355)
Size	-0.068*** (-28.021)	-0.078*** (-26.217)	-0.081*** (-23.788)	-0.079*** (-21.585)
Age	-0.001*** (-6.877)	-0.001*** (-7.710)	-0.001*** (-6.587)	-0.001*** (-5.730)
Lvg	0.125*** (6.697)	0.126*** (6.763)	0.141*** (6.772)	0.136*** (6.043)
ROA	1.987*** (26.210)	1.995*** (26.701)	1.737*** (21.494)	1.616*** (17.940)
Cap_int	-0.212*** (-5.251)	-0.172*** (-4.366)	-0.211*** (-4.795)	-0.212*** (-4.563)
Profitability	-0.006*** (-2.799)	-0.006*** (-2.859)	-0.004** (-2.152)	-0.019 (-1.435)
Capx	0.281*** (7.318)	0.264*** (7.040)	0.219*** (5.220)	0.201*** (4.645)
Ownership		0.005*** (5.280)	0.005*** (5.059)	0.006*** (5.369)
Gender		0.005 (0.364)	-0.004 (-0.263)	0.004 (0.222)
Duality		0.010* (1.745)	0.014** (2.077)	0.017** (2.354)
Board size		0.068*** (4.504)	0.053*** (3.093)	0.038** (2.104)
Perc_indep		0.000 (0.697)	0.000 (1.221)	0.000 (1.222)
Sust_comm		0.043*** (6.482)	0.046*** (6.243)	0.058*** (7.345)
Constant	1.901*** (30.168)	1.761*** (25.254)	1.816*** (24.113)	1.913*** (24.034)
Observations	11,828	11,828	10,201	9,056
R-squared	0.397	0.403	0.367	0.347
industry fe	yes	yes	yes	yes
year fe	yes	yes	yes	yes
chi-squared χ^2		16.94***		

Note: This table presents the baseline results. Column 1 examines the impact of myopia on economic performance by incorporating firm-level characteristics as control variables. Column 2 examines the impact of myopia on economic performance by incorporating all control variables. Column 3 uses the Tobin's Q (t+1). Column 4 uses the Tobin's Q (t+2). Robust t-statistics in parentheses. The definition of each variable is reported in Table 4.1. *** significance at 1%, ** significance at 5%, * significance at 10%

Table 4.6 Baseline results for the moderating impact and sector-based analysis

VARIABLES	(1) TQ	(2) TQ	(3) TQ	(4) TQ
Myopia	-0.002*** (-4.432)	-0.002*** (-3.647)	0.000 (0.446)	-0.002*** (-3.931)
LTI	0.022*** (6.050)	0.024*** (5.027)	0.006** (2.147)	0.024*** (5.078)
Myopia X LTI	0.001** (2.478)	0.000 (1.252)	0.001*** (3.720)	0.000 (1.347)
Sector				-0.214*** (-11.179)
Sector X Myopia				0.001** (2.197)
Sector X LTI				-0.008 (-1.322)
Sector X Myopia X LTI				0.001* (1.652)
Controls	Included	Included	Included	Included
Constant	1.800*** (14.423)	1.422*** (9.342)	1.668*** (6.740)	1.809*** (14.490)
Observations	11,637	10,311	1,326	11,637
R-squared	0.407	0.360	0.709	0.408
industry fe	yes	yes	no	yes
year fe	yes	yes	yes	yes
chi-squared χ^2			2.87*	

Note: This table presents the moderating impact of long-term incentives with sector-based analysis. Column 1 examines the moderating impact of long-term incentives on the myopia-economic performance relationship. Column 2 examines the moderating impact of long-term incentives on the myopia-economic performance relationship for the non-financial sector. Column 3 examines the moderating impact of long-term incentives on the myopia-economic performance relationship for the financial sector. Column 4 presents the differences between financial and non-financial sectors through the three-way interaction term. Robust t-statistics in parentheses. The definition of each variable is reported in Table 4.1. *** significance at 1%, ** significance at 5%, * significance at 10%

Table 4.7 Mediating (path) analysis

Panel A: Economic performance (Tobin's Q)		
<i>Dep Var</i>	<i>Env</i>	<i>TQ</i>
	(1)	(2)
Myopia	-0.035** (-2.21)	-0.001*** (-3.7)
Env		0.002*** (11.68)
Controls	Y	Y
Year FE	Y	Y
Industry FE	Y	Y
<i>Mediating effects</i>		
Indirect effect – Myopia * Env		-0.00007**
Sobel <i>z-statistics</i> for the indirect effect		-2.171**
Direct effect (Path C)		-0.001***
Total effect (Path ABC)		-0.001***
Total effect mediated (%)		5.6%
Panel B: Economic performance (Tobin's Q)		
<i>Dep Var</i>	<i>Soc</i>	<i>TQ</i>
	(1)	(2)
Myopia	-0.081*** (-6.32)	-0.001*** (-2.99)
Soc		0.003*** (15.54)
Controls	Y	Y
Year FE	Y	Y
Industry FE	Y	Y
<i>Mediating effects</i>		
Indirect effect – Myopia * Soc		-0.00024***
Sobel <i>z-statistics</i> for the indirect effect		-5.857***
Direct effect (Path C)		-0.001***
Total effect (Path ABC)		-0.001***
Total effect mediated (%)		21.6%

Note: This table illustrates the mediating effect of environmental and social performance on the relationship between myopia and economic performance. The definition of each variable is reported in Table 4.1. *** significance at 1%, ** significance at 5%, * significance at 10%

Table 4.8 2SLS regression results

VARIABLES	<u>First stage</u>	<u>Second stage</u> TQ
Pred. myopia		-0.037*** (-5.360)
Emp. Opp.	-1.642*** (-4.025)	
Size	0.412*** (4.061)	-0.067*** (-19.039)
Age	0.021*** (6.409)	0.000 (0.657)
Lvg	-2.042*** (-3.664)	0.068*** (2.897)
ROA	7.456*** (4.848)	2.257*** (26.916)
Cap_int	0.145*** (4.436)	-0.001 (-0.669)
Profitability	-0.012 (-0.614)	-0.007*** (-3.314)
Capx	-0.729 (-0.540)	0.213*** (5.811)
Ownership	0.847*** (22.235)	0.036*** (5.907)
Gender	3.009*** (9.165)	0.116*** (4.476)
Duality	2.854*** (13.953)	0.119*** (5.679)
Board size	-1.384** (-2.202)	0.023 (1.274)
Perc_indep	-0.020* (-1.657)	-0.001** (-2.186)
Sust_comm	-1.110*** (-4.552)	-0.003 (-0.302)
Constant	1.456 (0.284)	1.673*** (14.126)
Observations	11,629	11,629
R-squared	0.158	0.405
χ^2	24.109***	
industry fe	yes	yes
year fe	yes	yes

Note: This table presents the 2sls regression results. Column 1 represents the first stage regression to estimate the predicted value of myopia variable. Columns 2 presents the second stage and the impact of the predicted myopia on economic performance. *employment opportunity* is computed as the proportion of other CEOs who receive higher pay than the CEO within the same industry. The definition of each variable is reported in Table 4.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 4.9 Using average for calculating Myopia

VARIABLES	(1) TQ	(2) Moderating	(3) Moderating-NF	(4) Moderating-F
Myopia-avg	-0.001*** (-3.888)	-0.002*** (-4.420)	-0.002*** (-3.613)	0.000 (0.484)
LTI		0.023*** (6.672)	0.025*** (5.562)	0.008** (2.480)
Myopia X LTI		0.001** (2.225)	0.000 (1.044)	0.001*** (3.745)
Size	-0.078*** (-26.217)	-0.080*** (-26.527)	-0.081*** (-24.542)	-0.081*** (-7.180)
Age	-0.001*** (-7.694)	-0.001*** (-7.108)	-0.001*** (-7.726)	0.001** (2.516)
Lvg	0.126*** (6.761)	0.131*** (7.024)	0.157*** (8.223)	0.351*** (4.189)
ROA	1.996*** (26.709)	1.971*** (26.355)	2.007*** (26.155)	2.978*** (5.955)
Cap_int	-0.171*** (-4.357)	-0.156*** (-3.955)	0.180*** (3.278)	-0.589*** (-4.556)
Profitability	-0.006*** (-2.859)	-0.006*** (-2.918)	-0.006*** (-3.495)	-0.026 (-0.410)
Capx	0.264*** (7.036)	0.252*** (6.728)	0.127*** (3.275)	0.922*** (3.579)
Ownership	0.005*** (5.324)	0.005*** (5.594)	0.006*** (5.356)	0.003** (2.282)
Gender	0.005 (0.370)	0.004 (0.305)	-0.001 (-0.063)	0.058** (2.337)
Duality	0.010* (1.773)	0.014** (2.418)	0.019*** (2.886)	0.018* (1.740)
Board size	0.068*** (4.496)	0.067*** (4.430)	0.086*** (4.942)	0.059*** (2.720)
Perc_indep	0.000 (0.693)	-0.000 (-0.174)	-0.000 (-0.339)	0.001* (1.890)
Sust_comm	0.043*** (6.476)	0.041*** (6.160)	0.029*** (4.075)	0.069*** (4.252)
Constant	1.759*** (25.234)	1.796*** (14.390)	1.419*** (9.324)	1.667*** (6.734)
Observations	11,828	11,637	10,311	1,326
R-squared	0.403	0.407	0.360	0.709
industry fe	yes	yes	yes	no
year fe	yes	yes	yes	yes

Note: this table demonstrates the use of industry average values rather than industry median values for constructing CEO myopia variable. Column 1 illustrates the effect of myopia-average variable on economic performance. Column 2 illustrates the effect of myopia-average variable on the moderating impact. Column 3 illustrates the effect of myopia-average variable on the moderating impact for non-financial firms. Column 4 illustrates the effect of myopia-average variable on the moderating impact for financial firms. The definition of each variable is reported in Table 4.1. Robust t-statistics in parentheses.

*** significance at 1%, ** significance at 5%, * significance at 10%

Table 4.10 Alternative measures for economic performance

VARIABLES	(1) ROA	(2) ROE
Myopia	-0.740*** (-6.020)	-0.001* (-1.715)
Size	113.847*** (46.727)	0.007 (1.221)
Age	0.328*** (5.142)	0.000*** (2.581)
Lvg	-90.593*** (-10.301)	-0.155*** (-2.642)
Cap_int	-174.219*** (-4.913)	-0.294*** (-2.879)
Profitability	236.882*** (14.430)	0.488*** (10.396)
Capx	-51.100** (-2.193)	-0.157** (-2.343)
Ownership	3.062*** (8.651)	-0.002 (-1.286)
Gender	-18.791*** (-2.618)	-0.062*** (-2.753)
Duality	-1.006 (-0.310)	0.000 (0.016)
Board size	-33.772*** (-4.043)	0.036 (1.277)
Perc_indep	-0.025 (-0.178)	0.002*** (2.972)
Sust_comm	24.763*** (7.959)	0.040*** (3.017)
Constant	-543.435*** (-12.724)	0.337** (2.325)
Observations	11,828	11,828
R-squared	0.538	0.043
industry fe	yes	yes
year fe	yes	yes

Note: this table presents the results after using as alternative measures for the economic performance. Column 1 uses the effect of myopia variable on the economic performance proxied by ROA. Column 2 uses the effect of myopia variable on the economic performance proxied by ROE. The definition of each variable is reported in Table 4.1. Robust t-statistics in parentheses. *** *significance at 1%*, ** *significance at 5%*, * *significance at 10%*

Table 4.11 Alternative measure for long-term incentives

VARIABLES	(1) TQ
Myopia	-0.001*** (-3.731)
EFI	-0.016*** (-2.603)
Myopia X EFI	0.001* (1.705)
Size	-0.078*** (-25.913)
Age	-0.001*** (-7.599)
Lvg	0.126*** (6.776)
ROA	1.998*** (26.765)
Cap_int	-0.175*** (-4.449)
Profitability	-0.006*** (-2.876)
Capx	0.264*** (7.040)
Ownership	0.005*** (5.307)
Gender	0.004 (0.312)
Duality	0.010 (1.618)
Board size	0.068*** (4.507)
Perc_indep	0.000 (0.839)
Sust_comm	0.046*** (6.846)
Constant	1.759*** (25.133)
Observations	11,824
R-squared	0.404
industry fe	yes
year fe	yes

Note: This table presents the robustness of the results after using another measure for long-term incentives. EFI is a binary variable of whether the company has an ESG-financial performance compensation policy or not. The definition of each variable is reported in Table 4.1. Robust t-statistics in parentheses. *** *significance at 1%*, ** *significance at 5%*, * *significance at 10%*

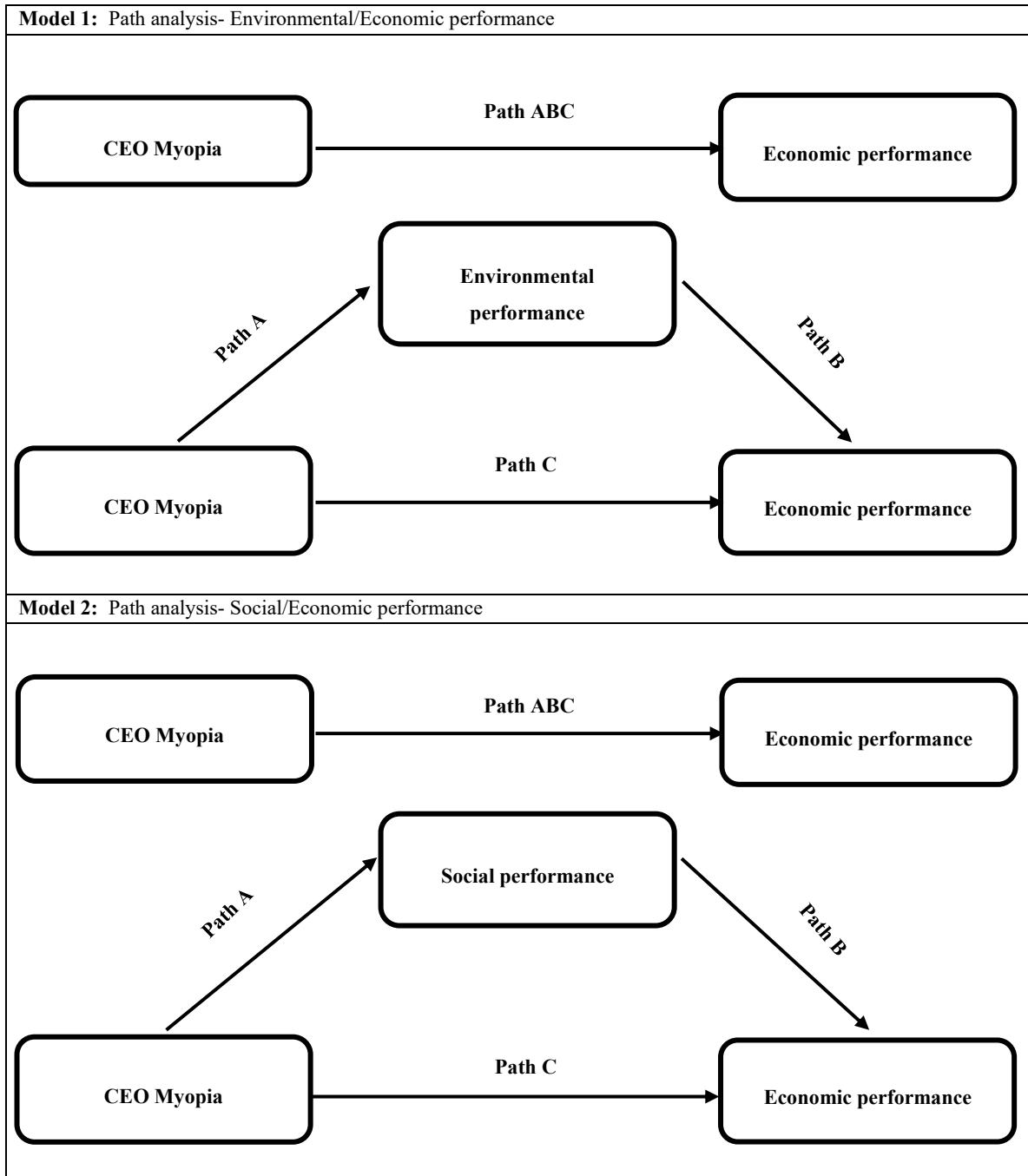
Table 4.12 Results for financial crisis & COVID-19 subsamples

VARIABLES	Financial crisis		COVID-19	
	Non-crisis TQ	Crisis TQ	Non-COVID TQ	COVID TQ
Myopia	-0.002*** (-4.169)	-0.002** (-2.152)	-0.001*** (-3.658)	-0.002*** (-2.603)
LTI	0.022*** (5.852)	0.015* (1.915)	0.019*** (5.246)	0.034*** (4.464)
Myopia X LTI	0.001** (2.408)	0.001 (0.601)	0.001** (2.323)	0.001 (0.915)
Size	-0.080*** (-25.573)	-0.095*** (-8.183)	-0.083*** (-25.263)	-0.069*** (-9.098)
Age	-0.001*** (-6.775)	-0.001*** (-2.621)	-0.001*** (-6.000)	-0.001*** (-3.770)
Lvg	0.141*** (7.295)	-0.056 (-0.822)	0.134*** (6.671)	0.127*** (2.695)
ROA	1.998*** (25.463)	1.897*** (8.475)	1.925*** (21.860)	2.326*** (14.346)
Cap_int	-0.160*** (-3.903)	0.088 (0.727)	-0.175*** (-3.987)	0.003 (0.029)
Profitability	-0.006*** (-3.027)	-0.203*** (-3.934)	-0.005*** (-3.067)	-0.137*** (-3.074)
Capx	0.250*** (6.296)	0.143 (1.358)	0.220*** (5.393)	0.287*** (3.024)
Ownership	0.006*** (5.297)	0.006** (2.281)	0.006*** (5.467)	0.005* (1.652)
Gender	0.002 (0.177)	0.084 (1.325)	0.014 (0.956)	-0.037 (-1.144)
Duality	0.015** (2.514)	0.007 (0.285)	0.015** (2.403)	0.017 (1.056)
Board size	0.073*** (4.582)	-0.027 (-0.590)	0.059*** (3.709)	0.094** (2.272)
Perc_indep	-0.000 (-0.272)	0.001 (0.854)	0.000 (0.752)	-0.001 (-1.601)
Sust_comm	0.040*** (5.851)	0.062*** (2.996)	0.044*** (6.308)	0.035* (1.865)
Constant	1.782*** (14.068)	1.833*** (10.652)	1.805*** (14.295)	1.671*** (11.052)
Observations	10,989	648	9,328	2,309
R-squared	0.404	0.543	0.419	0.385
industry fe	yes	yes	yes	yes
year fe	yes	yes	yes	yes

Note: This table presents the results when considering the impact of the financial crisis & COVID-19. Column 1 presents the non-financial crisis period across the economic performance. Column 2 presents the financial crisis period across the economic performance. Column 3 presents the non-COVID period across the economic performance. Column 4 presents the COVID period across the economic performance. The definition of each variable is reported in Table 4.1. Robust t-statistics in parentheses. *** significance at 1%, ** significance at 5%, * significance at 10%

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Figure 4.1 Mediation Test Models



Chapter Five: Summary and Conclusion

Chapter Five: Summary and Conclusion

Concerns regarding managerial myopia have gained attention from the public, governments, and organisations as this behaviour tends to prioritise short-term profits over long-term value creation, which threatens the concept of sustainability. Through three interrelated research papers, this thesis tries to comprehensively understand and examine the relationship between myopia and sustainability performance. First, this thesis conducts a systematic literature review to explore the nexus between managerial myopia and sustainability performance. Second, it explores the direct impact of CEO myopia on environmental, social and economic performance. Then, it examines the mediating roles of environmental and social initiatives in the relationship between CEO myopia and economic sustainability. Additionally, it examines the moderating effect of long-term incentives on the relationship between CEO myopia and the three dimensions of sustainability. Finally, it conducts a sector-based analysis to investigate whether there is a difference in the direct and moderating impact on the myopia-economic sustainability nexus. This chapter is structured as follows. Section 5.1 provides an integrated summary of the main findings from the three papers. Section 5.2 presents the limitations of this thesis. Section 5.3 presents the theoretical contribution to the literature, followed by the practical implications. Section 5.4 offers thesis suggestions for future research. In the end, Section 5.5 closes with a concluding remark.

5.1 Integrated summary of main findings

This thesis presents a comprehensive investigation into the relationship between managerial myopia and sustainability performance, encompassing a systematic literature review and two empirical papers. As there is an increasing trend in literature to understand the effect of this behaviour on firms' long-term strategies, organisations must align with this trend to enhance their sustainability performance. Although a growing body of empirical studies explores the myopia-sustainability nexus, review articles in this field are limited. Therefore, the first paper provides a significant analysis and evaluation of the findings related to the sample of academic papers. Generally speaking, the literature suggests that managerial myopia has a negative impact on firms' sustainability performance. Organisations recognise that the concept of sustainability requires long-term value creation, implying that committing to this concept

requires long-term plans, which can be affected by concentrating on short-term profits. Literature has introduced factors and causes that may lead to this myopic behaviour. Therefore, researchers may explore how various internal or external factors influence managerial myopia in a way that affects the three dimensions of sustainability performance. The findings of this paper are expected to address gaps in the current literature, providing suggestions to expand future research avenues, including those explored in my second and third papers.

In general, the findings offer several overarching conclusions that contribute to the development of theory, policy, and practice. Theoretically, the upper-echelon theory indicates that the temporal cognitive characteristics of managers direct their decision horizon and guide their behaviour to shape companies' growth strategies. Therefore, this theory is used for the second and third papers, as myopia is a managerial characteristic that leads executives to prioritise short-term profits at the expense of long-term plans that would be optimal for their companies. The systematic review indicates that agency theory and stakeholder theory are the most commonly used theories in the selected articles. The difference between these two theories lies in their scope of focus. Stakeholder theory emphasises the interests of various groups, in contrast to agency theory, which focuses solely on the conflict of interest between the principal and agent (Lu et al., 2022; Taurigana & Chithambo, 2015). Recently, stakeholder theory has been used frequently to explain a firm's long-term objectives and sustainability studies. Regarding the second paper, stakeholder theory provides a theoretical framework counterpoint to the myopia concept by addressing the importance of long-term sustainable development to multiple stakeholders in comparison to focusing on immediate short-term returns. However, for the theoretical development of Paper Three, the stakeholder-agency theory combines the views of agency theory and stakeholder theory, which is highly appropriate for understanding the interrelated impacts of the CEO's myopia on the three sustainability dimensions based on the triple bottom line approach.

In addition, this thesis introduces important theoretical and methodological innovations. The two empirical papers employ a unique industry-adjusted proxy for managerial myopia, based on CEOs' age and tenure, which captures temporal decision horizons in a more context-sensitive manner. This comes from the view that CEOs expect to have a longer time in their position when they are younger or newer compared to their counterparts in similar firms. It also integrates multiple theoretical frameworks (e.g., upper-echelon theory, stakeholder-agency theory) to explain how CEO characteristics and governance mechanisms jointly influence

sustainability performance. This industry-adjusted measure is superior to previous myopia measures, which are discussed in the first paper, as it controls for the industry effect on both tenure and age. This is because specific industries may experience a substantially high rate of turnover among senior executives. Moreover, high-tech industries are increasingly led by young CEOs or management teams, compared to mature industries.

The two empirical papers investigate how managerial myopia is detrimental to corporate sustainability performance and undermines long-term value creation. While most empirical studies from the first paper sample find that managerial myopia harms firms' sustainability performance, some studies offer mixed or contradictory evidence. In detail, the second paper illustrates that CEO myopia (proxied by CEOs' age and tenure) negatively impacts firms' environmental and social performance. In addition, while most studies in the systematic review focus on one or two sustainability dimensions, the third paper applied the perspective of the triple bottom line approach. It finds that CEO myopia also negatively impacts firms' economic performance. The results of this paper, which test for mediation effects, suggest that the environmental and social pillars mediate the relationship between CEO myopia and economic performance. This aligns with the view of the Sustainable Development Goals, which suggests that economic sustainability can be attained by achieving both environmental and social performance.

The thesis highlights the effectiveness of long-term incentives offered to CEOs and their role in aligning their interests with those of the firm's long-term value. The two empirical papers illustrate that these incentives effectively moderate the negative relationship between CEO myopia and the three sustainability dimensions. This supports the argument of Zeng et al. (2023) in that including performance-vesting and time-vesting conditions expands executives' decision-making and promotes long-term strategic thinking from a time-orientation perspective. From this perspective, long-term incentives help managers shift their focus away from short-term results and align their goals with the company's long-term value creation. This approach inherently considers the interests of multiple stakeholders, some emphasising environmental concerns and others prioritising social issues.

Finally, the thesis provides a sector-based analysis to examine whether there is a difference in the direct and moderating relationships in the myopia-economic performance nexus. According to Akbar et al. (2017), from the agency theory perspective, aligning CEOs' interests with shareholders' long-term value is crucial for mitigating short-term thinking in both financial and

non-financial firms. However, the results suggest a difference in the impact of myopia between the two sectors. This is consistent with Ahamed (2022) and Lai et al. (2024), who state that the characteristics of each sector (e.g., differences in regulatory reporting requirements) may differently affect CEOs' decision-making processes and how they are linked to long-term strategic goals. Regarding the impact of long-term incentives, the results indicate that the moderating impact of these incentives on the myopia-economic sustainability relationship is more substantial in the financial sector. This is consistent with John et al. (2016), who state that agency issues are more significant in financial firms due to their different characteristics and nature. These differences lead financial firms to have higher information asymmetries, as they are more heavily regulated and offer more unique operations and complex products. Additionally, due to increased short-term pressures, CEOs in financial firms are more likely to focus on short-term results, leading to higher agency costs. Accordingly, in line with the upper-echelon perspective and agency theory, long-term incentives are more effective in mitigating this behaviour and aligning CEOs' interests with economic sustainability to achieve long-term value creation.

5.2 Limitations

While the current thesis provides valuable insights into the myopia-sustainability performance relationship, it is important to acknowledge certain limitations that may be addressed in this thesis. The first paper starts by offering a systematic literature review of the relationship between managerial myopia and sustainability performance. While the methodological research for this paper is comprehensive, it does not indicate that it is exhaustive. Specifically, a potential limitation may exist from missing or overlooking some relevant articles. In addition, due to the diverse and multi-disciplinary nature of the subject reviewed, this paper occasionally had to maintain a more general perspective by prioritising breadth over depth in its analysis of findings. From the perspective of sustainability dimensions, most of the studies have focused on one or two dimensions. This focus might only offer a limited view of how this myopic behaviour may affect firms' sustainability performance. In addition, the first paper highlights the scarcity of qualitative research in the myopia-sustainability nexus, which may be related to i) research traditions and ii) the difficulties involved in analysing qualitative data (Christofi et al., 2017).

Moving to the empirical papers, the study sample is selected based on U.S. publicly listed firms due to the availability of data. This makes it difficult to generalise the findings as these papers focus mainly on developed countries. In general, developed nations typically differ from developing ones in that the latter often have weaker legal protections and governance structures, which can impact the expectations of firms' stakeholders regarding long-term sustainable strategies. Moreover, these papers primarily depend on secondary data to obtain the necessary data, which may be considered a limitation. This may offer a partial insight into the relationship between CEO myopia and the three dimensions of sustainability performance. Also, this focus on secondary quantitative data may not address some non-quantitative characteristics. The second and third papers use the expected tenure (as a combination of age and tenure) as a proxy for CEOs' myopic behaviour. Therefore, these papers focus on the observable traits or characteristics of CEOs to understand their myopic behaviour, which may be considered a cognitive concept. However, Peng (2022) notes that the myopia issue is an unobserved trait in managers, prompting scholars to develop indicators based on its underlying causes. For example, some studies measure myopia via short-term stock investments (e.g., Gaspar et al., 2005; Kim, Park, & Song, 2019), R&D expenditure (e.g., Mizik, 2010; Mizik & Jacobson, 2007; Saboo et al., 2016) and textual analysis measures (e.g., Brochet et al., 2015; Cao et al., 2023). In a similar vein, according to Souder & Bromiley (2012), literature faces challenges in empirically defining specific measures related to the issue of myopia. This is supported by the argument of Kordsachia et al. (2022), which suggests that the concept of myopia covers multiple perspectives and draws from various disciplines within the business field. Regarding the above-mentioned limitations, Section 5.4 identifies several avenues that provide fruitful future paths for scholars to explore further research directions.

5.3 Theoretical and practical contributions

5.3.1 Theoretical contributions

The overall structure of this thesis, supported by the systematic review paper and the two empirical papers, offers numerous contributions to the existing body of literature regarding the relationship between managerial myopia and firms' sustainability performance. Regarding the first paper, the systematic review contributes to the existing literature in several schemes. This is the first review that offers a comprehensive and systematic framework for the myopia-sustainability nexus by assessing and integrating the multiple findings and categorising the

results into multiple dimensions (e.g., citation impact, dimension of sustainability performance). Second, it adds depth to the literature in this nexus, enhancing the growing body of empirical research in this area. Third, the paper aims to broaden the investigation and apply a thematic analysis to highlight the pathways that shape firms' myopic behaviour. This offers a comprehensive understanding and provides well-structured guidance to multiple audiences (such as academics, practitioners and policymakers). Fourth, it enhances the existing literature by identifying theoretical, methodological and emerging trends in current research. Finally, this review discusses potential future research directions based on several limitations identified in existing studies in this area. These limitations can be summarised by the lack of research in i) assessing the impact of managerial myopia on the three dimensions of sustainability performance, ii) investigating whether this impact varies between different categories such as developed/developing countries or financial/non-financial sectors.

The second paper has five main contributions to the existing literature. First, it adds to the literature on executive behaviour and sustainability by explaining how CEOs' short-term orientation may influence firms' environmental and social initiatives. Second, there is a call for literature to examine and understand how executives' decision horizons affect firms' long-term strategies, particularly in terms of sustainability. This paper addresses this gap and employs a combination of CEOs' age and tenure to calculate their expected tenure as a proxy for myopia. Third, this paper examines the relationship between the upper echelon theory and stakeholder theory. While the upper-echelon view emphasises how CEOs' characteristics impact strategic decisions, few studies link these traits (specifically age and tenure) to non-financial outcomes. Fourth, existing papers have concentrated mainly on investigating the direct influence of managerial myopia, with less consideration given to mechanisms to mitigate this behaviour. Accordingly, this paper contributes to the field of corporate governance by examining the role of long-term incentives in the relationship between CEO myopia and non-financial outcomes. Finally, this paper offers valuable insights for businesses, policymakers, and practitioners to adopt practices that promote alignment with sustainable, long-term strategies.

The empirical findings of the third paper contribute to the existing academic literature in several key areas. First, although progress has been made in examining the nexus between myopia and sustainability performance, most studies have focused on this relationship through the lens of one or two dimensions. Therefore, this paper considers the perspective of the triple bottom line approach. Second, this paper explores how myopia impacts firms' economic

performance, highlighting environmental and social performance as mediating channels. This provides an in-depth insight into the myopia-sustainability relationship and explores the interconnected dimensions of environmental, social and economic in present business practices. Third, no integrated framework clarifies how this myopic behaviour may affect the three aspects of sustainability performance. This research gap is addressed by combining both the view of the upper echelon (Hambrick & Mason, 1984) with the stakeholder-agency theory (Hill & Jones, 1992) to clarify the fundamental dynamics that affect CEOs' myopia regarding forward-thinking sustainable plans. Fourth, to date, previous literature in this area has primarily focused on the non-financial sector, excluding financial firms, as it views the distinct nature of their operations as making them incomparable to other sectors. However, considering the recent regulatory pressures for sustainable practices, this makes the comparative analysis between the two sectors particularly original and innovative. Given that financial firms exhibit higher agency costs compared to non-financial firms (Lee & Hwang, 2019), this paper contributes to the literature by examining whether and to what extent the direct and moderating impacts differ between financial and non-financial firms. Finally, in practical terms, this paper contributes by offering valuable insights for organisations, practitioners and standard setters, which are discussed in the next section.

5.3.2 Practical implications

This thesis's findings present valuable insights into the areas of corporate governance and strategic planning, with significant implications for businesses, practitioners, and policymakers regarding the myopia-sustainability relationship. From the first paper, the systematic review maps and integrates the literature on the issue of managerial myopia and its relationship to sustainability performance. Academically, researchers can gain in-depth knowledge about this nexus and conduct more empirical studies to bridge the gaps in the literature. In addition, they can allocate additional efforts to investigate how other factors may influence this relationship, which may result in different outcomes. Practically, this review provides valuable insights to practitioners in understanding what policies, mechanisms and regulations are needed to mitigate this myopic behaviour in order to enhance sustainable business practices.

Regarding the two empirical papers, they offer valuable insights and practical implications for promoting strategic planning and improving corporate governance mechanisms. First, managers need to acknowledge that focusing on short-term profits may affect broader

sustainability goals across environmental, social and economic dimensions. From this point, in addition to recognising managers' demographic attributes, organisations should consider their time orientation perspective to align organisational goals with socially responsible behaviours. For example, organisations can design strategic planning tools and training programs (e.g., scenario analysis) which depend on empirical data instead of immediate profits. In addition, policymakers need to develop strategies that encourage investments in sustainable plans and enhance transparency in sustainability reporting (e.g., adoption of the GRI) in line with the triple bottom line framework.

Additionally, executives' compensation plays a crucial role in shaping their strategic planning and encouraging long-term value creation. From this perspective, introducing incentives that are linked to defined long-term strategies or targets is an important tool to encourage the three aspects of sustainability. Organisations should consider the adoption of incentives like equity-based compensation or performance-based stock grants, which encourage CEOs to implement a broader perspective and prioritise long-term value creation (Hu et al., 2024). Moreover, the sectoral differences reveal that practitioners may emphasise the importance of tailoring the incentives' structure to the specific needs of different sectors. Following the 2008 financial crisis, concerns over CEO pay have become increasingly important in contemporary society, particularly in the financial sector. This can be related to higher agency costs, information asymmetries and the unique characteristics of this sector (Adu et al., 2022). From this point, policymakers can contribute by implementing appropriate regulations or legislation that promote transparency and incorporate sustainable objectives into firms' corporate governance and incentive schemes. In addition, they should emphasise the adoption of long-term incentives to encourage sustainable practices, especially in firms that experience higher short-term pressures.

The board of directors has the ability to initiate policies, form specific committees and encourage ongoing assessment of firms' sustainability performance. Therefore, policymakers may encourage the establishment of a contributed sustainability committee to ensure consistent alignment with broader organisational objectives, along with stakeholders' needs in addressing the concept of long-term value creation. This can effectively align the interests of managers with the overarching objectives of sustainable development. Finally, governing bodies can encourage collaboration between the sustainability and compensation committees to influence sustainable practices, enhance accountability and mitigate executives' short-term thinking.

5.4 Future research directions

Regarding the first paper, future research may explore alternative keywords or databases to address the problem of missing some key articles. In addition, future research may focus on integrating qualitative methods (e.g., interviews, case studies) with quantitative strategies to offer more valuable insights into the myopia-sustainability nexus. Noticing that these methods can be more effective in capturing this dynamic behaviour in developing countries, where data availability is limited. In addition, future research can also concentrate on the dimensions of firms' sustainability performance. The connection between managerial myopia and sustainability performance becomes clearer when referencing the GRI framework's definition of sustainability performance, which is also known as the triple bottom line approach. Moreover, according to Souder & Bromiley (2012), measuring the concept of myopia has been difficult in empirical research. From this point, more efforts can be conducted to empirically discover universally accepted measures that can be linked to this short-termism behaviour.

Moving to the two empirical papers, future research can explore different economies with varying regulations or accounting practices from a global perspective in order to broaden the sample and yield more precise insights and generalisations into this topic. Furthermore, different proxies might be employed to proxy the three sustainability dimensions. For example, for the purpose of this thesis, the LSEG database is employed to measure firms' environmental and social performance. However, the variation in ESG ratings among different databases indicates a possibility of investigating other measurement frameworks or rating bases (Berg et al., 2022). In addition, future studies may be conducted to examine how other corporate governance mechanisms may mitigate the effect of this short-term behaviour. For example, the board of directors can enhance their understanding of this relationship, as the board significantly influences firms' strategic decisions, which may, in turn, shape their sustainability initiatives. From this point, board diversity (e.g., gender diversity) may be considered a crucial factor that impacts this relationship. Additionally, the third paper presents inconsistent results regarding the moderating effect of long-term incentives in the non-financial sector. As agency costs and information asymmetry may differ across various industries, future studies may be conducted to investigate whether this effect varies among different sub-sectors, which can provide a better understanding of this area within non-financial industries.

Future studies may utilise other approaches (e.g., using interviews or questionnaires), which enable firms' managers to provide more detailed explanations of their decision-making

horizon, leading to better oversight of the quality of data. As a result, this can lead to a better capturing of CEOs' short-term thinking development, which addresses specific inquiries regarding the link between CEO myopia and firms' sustainability performance. In addition, due to the challenges in empirically constructing specific measures for the issue of myopia, future studies may be conducted to use additional factors, whether internally (such as CEO education, marital status and personal values), externally (such as institutional investors), or even broader attributes, to capture the dynamic of the decision-making process. In a similar vein, more effort may be conducted to measure this concept by using other alternative methodologies (such as interviews or field surveys), which allow researchers to collect detailed insights into the executives' decision-making processes.

In addition to the above-mentioned suggestions, this thesis's empirical papers are based on the linear relationship between CEO myopia and sustainability performance. Future research may be conducted to explore the possibility of non-linear relationships that may exist across the three dimensions (environmental, social and economic). For example, there may be a point where CEOs' focus on short-term outcomes begins to incorporate long-term considerations into their decision-making process. This may enrich the analysis and reveal more complex patterns in executives' behaviour. Finally, according to Jia & Li (2020), firms' executives may behave differently and emphasise short-term outcomes more during uncertain times. Therefore, future studies may explore how these periods (such as the financial crises, the Russian-Ukrainian war or the COVID-19 pandemic) may have a considerable impact on the direct myopia-sustainability nexus or on the impact of long-term incentives in aligning the interests of CEOs with the long-term value of organisations.

5.5 Concluding remarks

Completing this thesis has dramatically improved my understanding of the issue of managerial myopia and its effect on the three dimensions of firms' sustainability performance. I hope that the outcomes and insights of this work will significantly contribute to the progression of knowledge on this topic. While this thesis examines the effect of managerial myopia on sustainability performance and the moderating impact of corporate governance mechanisms in alleviating CEOs' myopic behaviour, several questions are still open and expected to be answered. For example, the sectoral differences between financial and non-financial companies

deserve more investigation. Finally, I am excited to expand on my thesis research by productively engaging in upcoming projects that may shed more light on this fascinating nexus.

References

- Abang'a, A. O., Tauringana, V., Wang'ombe, D., & Achiro, L. O. (2022). Corporate governance and financial performance of state-owned enterprises in Kenya. *Corporate Governance (Bingley)*, 22(4), 798–820. <https://doi.org/10.1108/CG-01-2021-0007>
- Abernethy, M. A., Jiang, L., & Kuang, Y. F. (2019). Can organizational identification mitigate the CEO horizon problem? *Accounting, Organizations and Society*, 78. <https://doi.org/10.1016/j.aos.2019.07.002>
- Abu-Ali, B. O., Al-Jamal, D., & El-Masry, A. (2024). The Relationship between Executive Compensation, Sustainability, and Performance: A Systematic Review. *Open Journal of Business and Management*, 12(05), 3020–3083. <https://doi.org/10.4236/ojbm.2024.125155>
- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291–309. <https://doi.org/10.1016/j.jfineco.2008.10.007>
- Adu, D. A., Al-Najjar, B., & Sitthipongpanich, T. (2022). 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>
- Agarwal, V. ; Vashishtha, R. ; & Venkatachalam, M. (2018). Mutual fund transparency and corporate myopia; Mutual fund transparency and corporate myopia. *The Review of Financial Studies*, 31(5), 1966–2003. <http://hdl.handle.net/10419/168353>
- Aghamolla, C., & Hashimoto, T. (2023). Managerial Myopia, Earnings Guidance, and Investment. *Contemporary Accounting Research*, 40(1), 166–195. <https://doi.org/10.1111/1911-3846.12820>
- Ahamed, F. (2022). CEO Compensation and Performance of Banks. *European Journal of Business and Management Research*, 7(1), 100–103. <https://doi.org/10.24018/ejbmr.2022.7.1.1234>
- Akbar, S., Kharabsheh, B., Poletti-Hughes, J., & Shah, S. Z. A. (2017). Board structure and corporate risk taking in the UK financial sector. *International Review of Financial*

- Analysis, 50, 101–110. <https://doi.org/10.1016/j.irfa.2017.02.001>
- Akhtar, S., Li, C., Sohu, J. M., Rasool, Y., Hassan, M. I. U., & Bilal, M. (2024). Unlocking green innovation and environmental performance: the mediated moderation of green absorptive capacity and green innovation climate. *Environmental Science and Pollution Research International*, 31(3), 4547–4562. <https://doi.org/10.1007/s11356-023-31403-w>
- Aktas, N., Boone, A., Croci, E., & Signori, A. (2021). Reductions in CEO career horizons and corporate policies. *Journal of Corporate Finance*, 66. <https://doi.org/10.1016/j.jcorpfin.2020.101862>
- Alessandri, T. M., Mammen, J., & Eddleston, K. (2018). Managerial incentives, myopic loss aversion, and firm risk: A comparison of family and non-family firms. *Journal of Business Research*, 91, 19–27. <https://doi.org/10.1016/j.jbusres.2018.05.030>
- Alhossini, M. A., Ntim, C. G., & Zalata, A. M. (2021). Corporate Board Committees and Corporate Outcomes: An International Systematic Literature Review and Agenda for Future Research. *International Journal of Accounting*. <https://doi.org/10.1142/S1094406021500013>
- Ali, H., & Birley, S. (1999). Integrating deductive and inductive approaches in a study of new ventures and customer perceived risk. *Qualitative Market Research: An International Journal*, 2(2), 103–110.
- Almici, A. (2022). Does sustainability in executive remuneration matter? The moderating effect of Italian firms' corporate governance characteristics. *Meditari Accountancy Research*, 31(7), 49–87. <https://doi.org/10.1108/MEDAR-05-2022-1694>
- Angelis, D. De, & Grinstein, Y. (2015). Performance terms in CEO compensation contracts. *Review of Finance*, 19(2), 619–651. <https://doi.org/10.1093/rof/rfu014>
- Antia, M., Pantzalis, C., & Park, J. C. (2010). CEO decision horizon and firm performance: An empirical investigation. *Journal of Corporate Finance*, 16(3), 288–301. <https://doi.org/10.1016/j.jcorpfin.2010.01.005>
- Antia, M., Pantzalis, C., & Park, J. C. (2021). Does CEO myopia impede growth opportunities? *Review of Quantitative Finance and Accounting*, 56(4), 1503–1535. <https://doi.org/10.1007/s11156-020-00934-5>

- Asker, J., Farre-Mensa, J., & Ljungqvist, A. (2015). Corporate investment and stock market listing: A puzzle? *Review of Financial Studies*, 28(2), 342–390. <https://doi.org/10.1093/rfs/hhu077>
- Aubrecht, J. (2022). Married to sustainability: The SDG wedding cake framework as a tool for strategic corporate social responsibility. *Nw. J. Int'l L. & Bus.*, 43, 123.
- Balkin, D. B., Markman, G. D., & Gomez-Mejia, L. R. (2000). Is CEO Pay in High-Technology Firms Related to Innovation? In *Source: The Academy of Management Journal* (Vol. 43, Issue 6). <https://about.jstor.org/terms>
- Bansal, P., & DesJardine, M. (2014). Business sustainability: It is about time. *Strategic Organization*, 12(1), 70–78. <https://doi.org/10.1177/1476127013520265>
- Bansal, P., Gao, J., & Qureshi, I. (2014). The Extensiveness of Corporate Social and Environmental Commitment across Firms over Time. *Organization Studies*, 35(7), 949–966. <https://doi.org/10.1177/0170840613515564>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Beale, F., Fernando, M., & Shell, R. D. (2009). Short-termism and genuineness in environmental initiatives: a comparative case study of two oil companies. *European Management Journal*, 27(1), 26–35. <https://doi.org/10.1016/j.emj.2008.05.002>
- Bebchuk, L. A., Fried, J. M., Bebchuk, L. A., Fried, J. M., Bettis, C., Brilla, J., Cannon, J., Cohen, A., Feinberg, K., Foley, B., Jackson, R., Lukomnik, J., Murphy, K., Shilon, N., & Spamann, H. (2010). Paying for long-term performance. *University of Pennsylvania Law Review* (Vol. 158, Issue 7).
- Benabou, R., & Tirole, J. (2010). Individual and corporate social responsibility. *Economica*, 77(305), 1–19. <https://doi.org/10.1111/j.1468-0335.2009.00843.x>
- Bendig, D., Willmann, D., Strese, S., & Brettel, M. (2018). Share repurchases and myopia: Implications on the stock and consumer markets. *Journal of Marketing*, 82(2), 19–41. <https://doi.org/10.1509/jm.16.0200>
- Berezinets, I., Ilina, Y., & Cherkasskaya, A. (2017). Board structure, board committees and corporate performance in Russia. *Managerial Finance*, 43(10), 1073–1092.

<https://doi.org/10.1108/MF-11-2015-0308>

- Berg, F., Kölbel, J. F., & Rigobon, R. (2022). Aggregate Confusion: The Divergence of ESG Ratings*. *Review of Finance*, 26(6), 1315–1344. <https://doi.org/10.1093/rof/rfac033>
- Berry, W. D., & Feldman, S. (1985). *Multiple regression in practice*. Sage.
- Bhagat, S., & Bolton, B. (2014). Financial crisis and bank executive incentive compensation. *Journal of Corporate Finance*, 25, 313–341. <https://doi.org/10.1016/j.jcorpfin.2014.01.002>
- Biswas, P. K., Mansi, M., & Pandey, R. (2018). Board composition, sustainability committee and corporate social and environmental performance in Australia. *Pacific Accounting Review*, 30(4), 517–540. <https://doi.org/10.1108/PAR-12-2017-0107>
- Boakye, D. J., Tingbani, I., Ahinful, G., Damoah, I., & Tauringana, V. (2020). Sustainable environmental practices and financial performance: Evidence from listed small and medium-sized enterprise in the United Kingdom. *Business Strategy and the Environment*, 29(6), 2583–2602. <https://doi.org/10.1002/bse.2522>
- Boubaker, S., Chourou, L., Himick, D., & Saadi, S. (2017). It ' s About Time! The Influence of institutional investment horizon on Corporate social responsibility. *Thunderbird International Business Review*, 59(5), 571–594. <https://doi.org/10.1002/tie>
- Bourveau, T., Brochet, F., & Garel, A. (2022). The Capital Market Consequences of Tenure-Based Voting Rights: Evidence from the Florange Act. *Management Science*, 68(12), 9107–9128. <https://doi.org/10.1287/mnsc.2022.4320>
- Brammer, S., & Pavelin, S. (2008). Factors influencing the quality of corporate environmental disclosure. *Business Strategy and the Environment*, 17(2), 120–136. <https://doi.org/10.1002/bse.506>
- Briscoe, F., Chin, M. K., & Hambrick, D. C. (2014). CEO ideology as an element of the corporate opportunity structure for social activists. In *Academy of Management Journal* (Vol. 57, Issue 6, pp. 1786–1809). Academy of Management. <https://doi.org/10.5465/amj.2013.0255>
- Brochet, F., Loumioti, M., & Serafeim, G. (2015). Speaking of the short-term: disclosure horizon and managerial myopia. *Review of Accounting Studies*, 20(3), 1122–1163.

<https://doi.org/10.1007/s11142-015-9329-8>

- Bryman, A. (2018). Quantitative and qualitative research: further reflections on their integration. *Mixing Methods: Qualitative and Quantitative Research*, 57–78. <https://doi.org/10.4324/9781315248813-3>
- Buallay, A., Fadel, S. M., Al-Ajmi, J. Y., & Saudagaran, S. (2020). Sustainability reporting and performance of MENA banks: is there a trade-off? *Measuring Business Excellence*, 24(2), 197–221. <https://doi.org/10.1108/MBE-09-2018-0078>
- Buck, K. D., Summers, J. K., & Smith, L. M. (2021). Investigating the relationship between environmental quality, socio-spatial segregation and the social dimension of sustainability in US urban areas. *Sustainable Cities and Society*, 67. <https://doi.org/10.1016/j.scs.2021.102732>
- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organisational analysis*. Routledge.
- Bushee, B. J. (2001). Do Institutional Investors Prefer Near-Term Earnings over Long-Run Value? *Contemporary Accounting Research*, 18(2), 207–246. <https://doi.org/10.1506/J4GU-BHWH-8HME-LE0X>
- Cain, M. D., McKeon, S. B., & Solomon, S. D. (2017). Do takeover laws matter? Evidence from five decades of hostile takeovers. *Journal of Financial Economics*, 124(3), 464–485. <https://doi.org/10.1016/j.jfineco.2017.04.003>
- Calza, F., Profumo, G., & Tutore, I. (2016). Corporate Ownership and Environmental Proactivity. *Business Strategy and the Environment*, 25(6), 369–389. <https://doi.org/10.1002/bse.1873>
- Campbell, D., Craven, B., & Shrives, P. (2003). Voluntary social reporting in three FTSE sectors: A comment on perception and legitimacy. *Accounting, Auditing & Accountability Journal*, 16(4), 558–581. <https://doi.org/10.1108/09513570310492308>
- Cancela, B. L., Neves, M. E. D., Rodrigues, L. L., & Gomes Dias, A. C. (2020). The influence of corporate governance on corporate sustainability: new evidence using panel data in the Iberian macroeconomic environment. *International Journal of Accounting and Information Management*, 28(4), 785–806. <https://doi.org/10.1108/IJAIM-05-2020-0068>

- Cannon, J. N., Hu, B., Lee, J. J., & Yang, D. (2020). The effect of international takeover laws on corporate resource adjustments: Market discipline and/or managerial myopia? In *Journal of International Business Studies* (Vol. 51, Issue 9). Palgrave Macmillan UK. <https://doi.org/10.1057/s41267-020-00370-6>
- Cantrell, J., Kyriazis, E., Noble, G., & Algie, J. (2008). Towards NPOs deeper understanding of the corporate giving manager's role in meeting salient stakeholders needs. *Journal of Nonprofit and Public Sector Marketing*, 20(2), 191–212. <https://doi.org/10.1080/10495140802224829>
- Cao, Q., Ju, M., Li, J., & Zhong, C. (2023). Managerial Myopia and Long-Term Investment: Evidence from China. *Sustainability* (Switzerland), 15(1), 1–20. <https://doi.org/10.3390/su15010708>
- Carpenter, M. A., Geletkancz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30(6), 749–778. <https://doi.org/10.1016/j.jm.2004.06.001>
- Chatjuthamard, P., Jiraporn, P., Lee, S. M., Uyar, A., & Kilic, M. (2021). Does board gender diversity matter? Evidence from hostile takeover vulnerability. *Corporate Governance* (Bingley), 21(5), 845–864. <https://doi.org/10.1108/CG-08-2020-0353>
- Chen, C., Zhu, Y., Jiang, R., & Zhu, L. (2022). How export-oriented SMEs from emerging markets respond to the CSR-related code of conduct: a content analysis of auditing reports. *International Journal of Emerging Markets*. <https://doi.org/10.1108/IJOEM-12-2021-1808>
- Chen, W. (Tina), Zhou, G. (Stephen), & Zhu, X. (Kevin). (2019). CEO tenure and corporate social responsibility performance. *Journal of Business Research*, 95(July 2017), 292–302. <https://doi.org/10.1016/j.jbusres.2018.08.018>
- Chen, Y., & Perez, Y. (2018). Business Model Design: Lessons Learned from Tesla Motors. *Paradoxes and Trends in Energy and Transportation*, 53–69. https://doi.org/10.1007/978-3-319-79060-2_4
- Chen, Y. F., Lin, F. L., & Yang, S. Y. (2015). Does institutional short-termism matter with managerial myopia?. *Journal of Business Research*, 68(4), 845-850.

- Chin, M. K., Hambrick, D. C., & Treviño, L. K. (2013). Political Ideologies of CEOs: The Influence of Executives' Values on Corporate Social Responsibility. *Administrative Science Quarterly*, 58(2), 197–232. <https://doi.org/10.1177/0001839213486984>
- Cho, T. S., & Hambrick, D. C. (2006). Attention as the Mediator between Top Management Team Characteristics and Strategic Change: The Case of Airline Deregulation. *Organization Science*, 17(4), 453–469. <https://about.jstor.org/terms>
- Choi, J. H., Kim, S., & Lee, A. (2020). CEO tenure, corporate social performance, and corporate governance: A Korean study. *Sustainability (Switzerland)*, 12(1), 1–17. <https://doi.org/10.3390/SU12010099>
- Choi, J. J., Kim, J., & Shenkar, O. (2023). Temporal Orientation and Corporate Social Responsibility: Global Evidence. *Journal of Management Studies*, 60(1), 82–119. <https://doi.org/10.1111/joms.12861>
- Christofi, M., Leonidou, E., & Vrontis, D. (2017). Marketing research on mergers and acquisitions: a systematic review and future directions. *International Marketing Review*, 34(5), 629–651. <https://doi.org/10.1108/IMR-03-2015-0100>
- Chu, H.-L., Liu, N.-Y., & Chiu, S.-C. (2023). CEO power and CSR: the moderating role of CEO characteristics. *China Accounting and Finance Review*, 25(1), 101–121. <https://doi.org/10.1108/cafr-03-2022-0027>
- Cid-Aranda, C., & López-Iturriaga, F. (2023). C.E.O. characteristics and corporate risk-taking: evidence from emerging markets. *Economic Research-Ekonomska Istrazivanja*, 36(2). <https://doi.org/10.1080/1331677X.2023.2175008>
- Collier, P., Hoeffler, A., & Söderbom, M. (2008). Post-conflict risks. *Journal of Peace Research*, 45(4), 461–478. <https://doi.org/10.1177/0022343308091356>
- Collis, J., & Hussey, R. (2014). *Business Research*. sl. Palgrave Macmillan.
- Craig Smith, N., Drumwright, M. E., & Gentile, M. C. (2010). The new marketing myopia. *Journal of Public Policy and Marketing*, 29(1), 4–11. <https://doi.org/10.1509/jppm.29.1.4>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Curien, R. (2017). Singapore, a Model for (Sustainable?) Urban Development in China. *China*

- Perspectives, 2017(1), 25–35. <https://doi.org/10.4000/chinaperspectives.7183>
- Czakon, W., Klimas, P., Kawa, A., & Kraus, S. (2023). How myopic are managers? Development and validation of a multidimensional strategic myopia scale. *Journal of Business Research*, 157(December 2022), 113573. <https://doi.org/10.1016/j.jbusres.2022.113573>
- Danese, P., Manfè, V., & Romano, P. (2018). A Systematic Literature Review on Recent Lean Research: State-of-the-art and Future Directions. *International Journal of Management Reviews*, 20(2), 579–605. <https://doi.org/10.1111/ijmr.12156>
- Davies, R., Haldane, A. G., Nielsen, M., & Pezzini, S. (2014). Measuring the costs of short-termism. *Journal of Financial Stability*, 12(1), 16–25. <https://doi.org/10.1016/j.jfs.2013.07.002>
- De Haan, J., & Vlahu, R. (2016). Corporate governance of banks: A survey. *Journal of Economic Surveys*, 30(2), 228–277. <https://doi.org/10.1111/joes.12101>
- Deckop, J. R., Merriman, K., & Shurti, G. (2006). The effects of CEO pay structure on corporate social performance. *Journal of Management*, 32(3), 329–342. <https://doi.org/10.1177/0149206305280113>
- Denyer, D., & Tranfield, D. (2009). Producing a Systematic Review. *The SAGE Handbook of Organizational Research Methods* (pp. 671–689).
- Dienes, D., Sassen, R., & Fischer, J. (2016). What are the drivers of sustainability reporting? A systematic review. *Sustainability Accounting, Management and Policy Journal*, 7(2), 154–189. <https://doi.org/10.1108/SAMPJ-08-2014-0050>
- Ding, H., Jiang, F., Zhang, S., & Zhang, Z. (2024). Managerial myopia and corporate social responsibility : Evidence from the textual analysis of chinese earnings communication conferences. *Journal of Behavioral and Experimental Finance*, 41. <https://doi.org/10.1016/j.jbef.2024.100886>
- Drucker, P. (2013). *Managing for the Future*. Routledge.
- Dshemuchadse, M., Scherbaum, S., & Goschke, T. (2013). How decisions emerge: Action dynamics in intertemporal decision making. *Journal of Experimental Psychology: General*, 142(1), 93–100. <https://doi.org/10.1037/a0028499>

- Dyck, A., Lins, K. V., Roth, L., & Wagner, H. F. (2019). Do institutional investors drive corporate social responsibility? International evidence. *Journal of Financial Economics*, 131(3), 693–714. <https://doi.org/10.1016/j.jfineco.2018.08.013>
- Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, 11(2), 130–141. <https://doi.org/10.1002/bse.323>
- Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11), 2835–2857. <https://doi.org/10.1287/mnsc.2014.1984>
- Eckert, E., & Kovalevska, O. (2021). Sustainability in the European Union: Analyzing the Discourse of the European Green Deal. *Journal of Risk and Financial Management*, 14(2), 80. <https://doi.org/10.3390/jrfm14020080>
- Edmans, A. (2009). Blockholder trading, market efficiency, and managerial myopia. *Journal of Finance*, 64(6), 2481–2513. <https://doi.org/10.1111/j.1540-6261.2009.01508.x>
- Edmans, A., Fang, V. W., & Huang, A. H. (2022). The long-term consequences of short-term incentives. *Journal of Accounting Research*, 60(3), 1007-1046.
- Edmans, A., Fang, V. W., & Lewellen, K. A. (2017). Equity vesting and investment. *Review of Financial Studies*, 30(7), 2229–2271. <https://doi.org/10.1093/rfs/hhx018>
- Eisenhardt, K. M. (1989). Making Fast Strategic Decisions in High-Velocity Environments. *Academy of Management Journal*, 32(3), 543–576.
- Elisabetta, D., & Iannuzzi, A. P. (2017). Incentive Plans, Pay-for-non-financial Performance and ESG Criteria: Evidence from the European Banking Sector. *International Business Research*, 10(10), 169. <https://doi.org/10.5539/ibr.v10n10p169>
- Elkington, John. (1998). Accounting for the triple bottom line. *Measuring Business Excellence*, 2(3), 18–22.
- Elyasiani, E., & Zhang, L. (2015). Bank holding company performance, risk, and “busy” board of directors. *Journal of Banking and Finance*, 60, 239–251. <https://doi.org/10.1016/j.jbankfin.2015.08.022>
- Engert, S., Rauter, R., & Baumgartner, R. J. (2016). Exploring the integration of corporate sustainability into strategic management: A literature review. *Journal of Cleaner*

- Production, 112, 2833–2850. <https://doi.org/10.1016/j.jclepro.2015.08.031>
- Erhemjamts, O., & Huang, K. (2019). Institutional ownership horizon, corporate social responsibility and shareholder value. *Journal of Business Research*, 105(May), 61–79. <https://doi.org/10.1016/j.jbusres.2019.05.037>
- Ernst and Young. (2014). Short-termism in business: causes, mechanisms and consequences. [http://www.ey.com/Publication/vwLUAssets/EY_Poland_Report/\\$FILE/Short-termism_raport_EY.pdf](http://www.ey.com/Publication/vwLUAssets/EY_Poland_Report/$FILE/Short-termism_raport_EY.pdf)
- Ernstberger, J., Link, B., Stich, M., & Vogler, O. (2017). The real effects of mandatory quarterly reporting. *Accounting Review*, 92(5), 33–60. <https://doi.org/10.2308/accr-51705>
- European Commission. (2020). Study on directors' duties and sustainable corporate governance (Issue July). <https://op.europa.eu/en/publication-detail/-/publication/e47928a2-d20b-11ea-adf7-01aa75ed71a1/language-en>
- Fahy, J. (2000). The resource-based view of the firm: some stumbling-blocks on the road to understanding sustainable competitive advantage. *Journal of European Industrial Training*, 24(2/3/4), 94–104. http://www.mcbup.com/research_registers/tdev.asp
- Faller, C. M., & zu Knyphausen-Aufseß, D. (2018). Does Equity Ownership Matter for Corporate Social Responsibility? A Literature Review of Theories and Recent Empirical Findings. *Journal of Business Ethics*, 150(1), 15–40. <https://doi.org/10.1007/s10551-016-3122-x>
- Fan, Z., Chen, Y., & Mo, Y. (2024). Management myopia and corporate ESG performance. *International Review of Financial Analysis*, 92, 103071.
- Field, A. P. (2013). *Discovering statistics using IBM SPSS statistics*. Sage Publications.
- Flammer, C., & Bansal, P. (2017). Does a long-term orientation create value? Evidence from a regression discontinuity. *Strategic Management Journal*, 38(9), 1827–1847. <https://doi.org/10.1002/smj.2629>
- Flammer, C., Hong, B., & Minor, D. (2019). Corporate governance and the rise of integrating corporate social responsibility criteria in executive compensation: Effectiveness and implications for firm outcomes. *Strategic Management Journal*, 40(7), 1097–1122.

<https://doi.org/10.1002/smj.3018>

- Fonseca, A., McAllister, M. L., & Fitzpatrick, P. (2014). Sustainability reporting among mining corporations: A constructive critique of the GRI approach. In *Journal of Cleaner Production* (Vol. 84, Issue 1, pp. 70–83). Elsevier Ltd. <https://doi.org/10.1016/j.jclepro.2012.11.050>
- Francis, B. B., Hasan, I., Sharma, Z., & Waisman, M. (2019). Motivating high-impact innovation: Evidence from managerial compensation contracts. *Financial Markets, Institutions and Instruments*, 28(3), 291–318. <https://doi.org/10.1111/fmii.12115>
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
- Fu, X., Tang, T., & Yan, X. (2019). Why do institutions like corporate social responsibility investments? evidence from horizon heterogeneity. *Journal of Empirical Finance*, 51(January 2018), 44–63. <https://doi.org/10.1016/j.jempfin.2019.01.010>
- Gaio, C., & Henriques, R. (2020). Social responsibility and financial performance: the case of STOXX Europe Index. (Vol. 10).
- Galbreath, J. (2017). The Impact of Board Structure on Corporate Social Responsibility: A Temporal View. *Business Strategy and the Environment*, 26(3), 358–370. <https://doi.org/10.1002/bse.1922>
- García-Sánchez, I. M., & Noguera-Gámez, L. (2017). Integrated Reporting and Stakeholder Engagement: The Effect on Information Asymmetry. *Corporate Social Responsibility and Environmental Management*, 24(5), 395–413. <https://doi.org/10.1002/csr.1415>
- Gaspar, J. M., Massa, M., & Matos, P. (2005). Shareholder investment horizons and the market for corporate control. *Journal of Financial Economics*, 76(1), 135–165. <https://doi.org/10.1016/j.jfineco.2004.10.002>
- Gigler, F., Kanodia, C., Sapra, H., & Venugopalan, R. (2014). How frequent financial reporting can cause managerial short-termism: An analysis of the costs and benefits of increasing reporting frequency. *Journal of Accounting Research*, 52(2), 357–387.
- Girard, C., & Gates, S. (2020). Institutional contradictions of the French State as shareholder. *Corporate Governance (Bingley)*, 20(3), 545–558. <https://doi.org/10.1108/CG-08-2019-0241>

- Gloßner, S. (2019). Investor horizons, long-term blockholders, and corporate social responsibility. *Journal of Banking and Finance*, 103, 78–97. <https://doi.org/10.1016/j.jbankfin.2019.03.020>
- Graafland, J. J. (2016). Price competition, short-termism and environmental performance. *Journal of Cleaner Production*, 116, 125–134. <https://doi.org/10.1016/j.jclepro.2015.12.045>
- Graafland, J., & Smid, H. (2015). Competition and Institutional Drivers of Corporate Social Performance. *Economist (Netherlands)*, 163(3), 303–322. <https://doi.org/10.1007/s10645-015-9255-y>
- Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40(1–3), 3–73. <https://doi.org/10.1016/j.jacceco.2005.01.002>
- Greenland, S. J., Saleem, M., Misra, R., Nguyen, N., & Mason, J. (2023). Reducing SDG complexity and informing environmental management education via an empirical six-dimensional model of sustainable development. *Journal of Environmental Management*, 344. <https://doi.org/10.1016/j.jenvman.2023.118328>
- Gu, Y., Zhou, Q., & Ho, K. C. (2020). Financial flexibility and managerial short-termism. *Annals of Economics and Finance*, 21(1), 189–208.
- Hąbek, P., & Wolniak, R. (2016). Assessing the quality of corporate social responsibility reports: the case of reporting practices in selected European Union member states. *Quality and Quantity*, 50(1), 399–420. <https://doi.org/10.1007/s11135-014-0155-z>
- Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research. In *Journal of Cleaner Production* (Vol. 59, pp. 5–21). <https://doi.org/10.1016/j.jclepro.2013.07.005>
- Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2015). Tensions in Corporate Sustainability: Towards an Integrative Framework. *Journal of Business Ethics*, 127(2), 297–316. <https://doi.org/10.1007/s10551-014-2047-5>
- Hambrick, D. C. (2007). Upper Echelons Theory: An Update. *The Academy of Management Review*, 32(2), 334–343. <https://about.jstor.org/terms>

- 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/10.5465/amr.1984.4277628>
- Hambrick, D. C., Geletkanycz, M. A., & Fredrickson, J. W. (1993). Top executive commitment to the status quo: Some tests of its determinants. *Strategic Management Journal*, 14(6), 401–418. <https://doi.org/10.1002/smj.4250140602>
- Han, M., Lin, H., Sun, D., Wang, J., & Yuan, J. (2022). The Eco-Friendly Side of Analyst Coverage: The Case of Green Innovation. *IEEE Transactions on Engineering Management*, PP, 1–16. <https://doi.org/10.1109/TEM.2022.3148136>
- Han, S., Cui, W., Chen, J., & Fu, Y. (2019). Female CEOs and corporate innovation behaviors—research on the regulating effect of gender culture. *Sustainability (Switzerland)*, 11(3). <https://doi.org/10.3390/su11030682>
- Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38(3), 317–349. <https://doi.org/10.1111/1467-6281.00112>
- Haque, F., & Ntim, C. G. (2018). Environmental Policy, Sustainable Development, Governance Mechanisms and Environmental Performance. *Business Strategy and the Environment*, 27(3), 415–435. <https://doi.org/10.1002/bse.2007>
- Haque, F., & Ntim, C. G. (2020). Executive Compensation, Sustainable Compensation Policy, Carbon Performance and Market Value. *British Journal of Management*, 31(3), 525–546. <https://doi.org/10.1111/1467-8551.12395>
- He, J. (Jack), & Tian, X. (2013). The dark side of analyst coverage: The case of innovation. *Journal of Financial Economics*, 109(3), 856–878. <https://doi.org/10.1016/j.jfineco.2013.04.001>
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature \$. In *Journal of Accounting and Economics (Vol. 31)*.
- Hedberg, C.-J., & von Malmborg, F. (2003). Initiative and Corporate Sustainability Reporting. *Corporate Social Responsibility and Environmental Management*, 10, 153–164.

- Hill, C., & Jones, T. (1992). Stakeholder-Agency Theory. *Journal of Management Studies*, 29.2(March), 131–154. <https://doi.org/10.5840/iabsproc1997863>
- Hirsch, B. T., & Seaks, T. G. (1993). Functional Form in Regression Models of Tobin's q. *The Review of Economics and Statistics*, 75(2), 381–385. <https://www.jstor.org/stable/2109449>
- Hodak, M. (2019). Are Performance Shares Shareholder Friendly? *Journal of Applied Corporate Finance*, 31(3), 126–130. <https://doi.org/10.1111/jacf.12367>
- Holden, C. W., & Kim, D. S. (2017). Performance share plans: Valuation and empirical tests. *Journal of Corporate Finance*, 44, 99–125. <https://doi.org/10.1016/j.jcorpfin.2017.03.004>
- Hong, H., Kubik, J. D., & Solomon, A. (2000). Security Analysts' Career Concerns and Herding of Earnings Forecasts. *The Rand Journal of Economics*, Vol. 31, No. 1 (Spring, 2000), pp. 121-144. Retrieved from <http://www.jstor.org/stable/2601032>
- Hopper, T. (2019). Stop accounting myopia: – think globally: a polemic. *Journal of Accounting and Organizational Change*, 15(1), 87–99. <https://doi.org/10.1108/JAOC-12-2017-0115>
- Hoque, Z. (2014). 20 years of studies on the balanced scorecard: Trends, accomplishments, gaps and opportunities for future research. *British Accounting Review*, 46(1), 33–59. <https://doi.org/10.1016/j.bar.2013.10.003>
- Hu, M., Jiang, S., Song, D., & Han, Q. (2024). The influence of short-term managerial myopia on supply chain concentration: The moderating role of long-term incentives for the supervisory board. *Transportation Research Part E: Logistics and Transportation Review*, 188. <https://doi.org/10.1016/j.tre.2024.103610>
- Hu, N., Xue, F., & Wang, H. (2021). Does managerial myopia affect long-term investment? Based on text analysis and machine learning. *Management World*, 37(5), 139-156.
- Hu, S., Dong, W., & Huang, Y. (2023). Analysts' Green Coverage and Corporate Green Innovation in China: The Moderating Effect of Corporate Environmental Information Disclosure. *Sustainability (Switzerland)*, 15(7). <https://doi.org/10.3390/su15075637>
- Hu, Y. Y., Zhu, Y., Tucker, J., & Hu, Y. (2018). Ownership influence and CSR disclosure in China. *Accounting Research Journal*, 31(1), 8–21. <https://doi.org/10.1108/ARJ-01-2017-0011>

- Huang, X., Liu, W., Zhang, Z., Zou, X., & Li, P. (2023). Quantity or quality: Environmental legislation and corporate green innovations. *Ecological Economics*, 204(PB), 107684. <https://doi.org/10.1016/j.ecolecon.2022.107684>
- Huang, X., Teoh, S. H., & Zhang, Y. (2014). Tone management. *Accounting Review*, 89(3), 1083–1113. <https://doi.org/10.2308/accr-50684>
- Hubbard, D. W. (2014). *How to measure anything: Finding the value of intangibles in business*. John Wiley & Sons. <https://doi.org/10.1002/9781118983836>
- Hussain, M. J., Tian, G., Ayaz, M., & Ashraf, A. (2023). CEO Career Horizon and Corporate Social Responsibility Assurance. *Revista Espanola de Financiacion y Contabilidad*, 52(3), 384–411. <https://doi.org/10.1080/02102412.2022.2091914>
- Hussain, N., Rigoni, U., & Orij, R. P. (2018). Corporate Governance and Sustainability Performance: Analysis of Triple Bottom Line Performance. *Journal of Business Ethics*, 149(2), 411–432. <https://doi.org/10.1007/s10551-016-3099-5>
- Ibrahim, A. E. A., Hussainey, K., Nawaz, T., Ntim, C., & Elamer, A. (2022). A systematic literature review on risk disclosure research: State-of-the-art and future research agenda. *International Review of Financial Analysis*, 82(March), 102217. <https://doi.org/10.1016/j.irfa.2022.102217>
- Ikram, A., Li, Z. (Frank), & Minor, D. (2023). CSR-contingent executive compensation contracts. *Journal of Banking and Finance*, 151. <https://doi.org/10.1016/j.jbankfin.2019.105655>
- Ioannou, I., & Serafeim, G. (2012). What drives corporate social performance the role of nation-level institutions. *Journal of International Business Studies*, 43(9), 834–864. <https://doi.org/10.1057/jibs.2012.26>
- Jacsó, P. (2009). Calculating the h-index and other bibliometric and scientometric indicators from Google Scholar with the Publish or Perish software. *Online Information Review*, 33(6), 1189–1200. <https://doi.org/10.1108/14684520911011070>
- Jain, P., Jiang, C., & Mekhaimer, M. (2016). Executives' horizon, internal governance and stock market liquidity. *Journal of Corporate Finance*, 40, 1–23. <https://doi.org/10.1016/j.jcorpfin.2016.06.005>

- Jaroenjitrkam, A., Treepongkaruna, S., & Jiraporn, P. (2022). Does shareholder litigation risk promote or hinder corporate social responsibility? A quasi-natural experiment. *Corporate Social Responsibility and Environmental Management*, 29(3), 657–674. <https://doi.org/10.1002/csr.2227>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. In *Journal of Financial Economics* (Vol. 3). Q North-Holland Publishing Company.
- Jeremy C. Stein. (1989). Efficient Capital Markets, Inefficient Firms: a Model of Myopic Corporate Behavior*. *Quarterly Journal of Economics*, 104(4), 655–669.
- Jha, M. K., & Rangarajan, K. (2020). Analysis of corporate sustainability performance and corporate financial performance causal linkage in the Indian context. *Asian Journal of Sustainability and Social Responsibility*, 5(1). <https://doi.org/10.1186/s41180-020-00038-z>
- Jia, J., & Li, Z. (2020). Does external uncertainty matter in corporate sustainability performance? *Journal of Corporate Finance*, 65(January 2019), 101743. <https://doi.org/10.1016/j.jcorpfin.2020.101743>
- Jiang, Q., Liu, Z., Liu, W., Li, T., Cong, W., Zhang, H., & Shi, J. (2018). A principal component analysis based three-dimensional sustainability assessment model to evaluate corporate sustainable performance. *Journal of Cleaner Production*, 187, 625–637. <https://doi.org/10.1016/j.jclepro.2018.03.255>
- Jiraporn, P., Lee, S. M., Park, K. J., & Song, H. J. (2018). How do independent directors influence innovation productivity? A quasi-natural experiment. *Applied Economics Letters*, 25(7), 435–441. <https://doi.org/10.1080/13504851.2017.1329927>
- John w. Creswell. (2009). Research designs: Qualitative, quantitative, and mixed methods approaches (3rd Edition). In California: Sage.
- John, K., De Masi, S., & Paci, A. (2016). Corporate Governance in Banks. *Corporate Governance: An International Review*, 24(3), 303–321. <https://doi.org/10.1111/corg.12161>
- Kacperczyk, A. (2009). With greater power comes greater responsibility? takeover protection and corporate attention to stakeholders. *Strategic Management Journal*, 30(3), 261–285.

<https://doi.org/10.1002/smj>

- Kang, S.-H., Palepu, K. G., Healy, P. M., & Rang, S.-H. (1987). The effect of accounting procedure changes on CEOs' cash salary and bonus compensation. *Journal of Accounting and Economics*, 9(1), 7–34. <https://www.researchgate.net/publication/243770804>
- Kao, M. F., Hodgkinson, L., & Jaafar, A. (2019). Ownership structure, board of directors and firm performance: evidence from Taiwan. *Corporate Governance (Bingley)*, 19(1), 189–216. <https://doi.org/10.1108/CG-04-2018-0144>
- Kartadjumena, E., & Rodgers, W. (2019). Executive compensation, sustainability, climate, environmental concerns, and company financial performance: Evidence from Indonesian commercial banks. *Sustainability (Switzerland)*, 11(6). <https://doi.org/10.3390/su11061673>
- Kasim, H., & Antwi, S. K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European Journal of Business and ManagementOnline*, 7(3), 217–225. Retrieved from https://www.researchgate.net/profile/Hamza-Kasim/publication/295087782_Qualitative_and_Quantitative_Research_Paradigms_in_Business_Research_A_Philosophical_Reflection/links/56c7587108ae5488f0d2cd62/Qualitative-and-Quantitative-Research-Paradigms-in-Busine
- Katmon, N., Mohamad, Z. Z., Norwani, N. M., & Farooque, O. Al. (2019). Comprehensive Board Diversity and Quality of Corporate Social Responsibility Disclosure: Evidence from an Emerging Market. *Journal of Business Ethics*, 157(2), 447–481. <https://doi.org/10.1007/s10551-017-3672-6>
- Kato, T., & Long, C. (2006). Executive Turnover and Firm Performance in China. *American Economic Review*, 96(2), 363–367.
- Kavadis, N., & Thomsen, S. (2023). Sustainable corporate governance: A review of research on long-term corporate ownership and sustainability. *Corporate Governance: An International Review*, Vol. 31, pp. 198–226. <https://doi.org/10.1111/corg.12486>
- Khalid, R. U., Seuring, S., Beske, P., Land, A., Yawar, S. A., & Wagner, R. (2015). Putting sustainable supply chain management into base of the pyramid research. *Supply Chain Management*, 20(6), 681–696. <https://doi.org/10.1108/SCM-06-2015-0214>

- Khan, K. S., Kunz, R., Kleijnen, J., & Antes, G. (2003). Five steps to conducting a systematic review. *Journal of the Royal Society of Medicine*, 96(3), 118–121. <https://doi.org/10.1258/jrsm.96.3.118>
- Kim, C. H., Amaeshi, K., Harris, S., & Suh, C. J. (2013). CSR and the national institutional context: The case of South Korea. *Journal of Business Research*, 66(12), 2581–2591. <https://doi.org/10.1016/j.jbusres.2012.05.015>
- Kim, H. D., Kim, T., Kim, Y., & Park, K. (2019). Do long-term institutional investors promote corporate social responsibility activities? *Journal of Banking and Finance*, 101, 256–269. <https://doi.org/10.1016/j.jbankfin.2018.11.015>
- Kim, H. D., Park, K., & Roy Song, K. (2019). Do long-term institutional investors foster corporate innovation? *Accounting and Finance*, 59(2), 1163–1195. <https://doi.org/10.1111/acfi.12284>
- Kolasinski, A. C., & Yang, N. (2018). Managerial myopia and the mortgage meltdown. *Journal of Financial Economics*, 128(3), 466–485. <https://doi.org/10.1016/j.jfineco.2017.03.010>
- Konadu, R., Ahinful, G. S., & Owusu-Agyei, S. (2021). Corporate governance pillars and business sustainability: Does stakeholder engagement matter? *International Journal of Disclosure and Governance*, 18(3), 269–289. <https://doi.org/10.1057/s41310-021-00115-3>
- Kordsachia, O., Focke, M., & Velte, P. (2022). Do sustainable institutional investors contribute to firms' environmental performance? Empirical evidence from Europe. *Review of Managerial Science*, 16(5), 1409–1436. <https://doi.org/10.1007/s11846-021-00484-7>
- Kraft, A. G., Vashishtha, R., & Venkatachalam, M. (2018). Frequent financial reporting and managerial myopia. *Accounting Review*, 93(2), 249–275. <https://doi.org/10.2308/accr-51838>
- Kurznack, L., Schoenmaker, D., & Schramade, W. (2021). A model of long-term value creation. *Journal of Sustainable Finance and Investment*. <https://doi.org/10.1080/20430795.2021.1920231>
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2002). Investor protection and corporate valuation. *Journal of Finance*, 57(3), 1147–1170. <https://doi.org/10.1111/1540-6261.00457>

- Ladika, T., & Sautner, Z. (2020). Managerial Short-Termism and Investment: Evidence from Accelerated Option Vesting. *Review of Finance*, 24(2), 305–344. <https://doi.org/10.1093/rof/rfz012>
- Lai, L., Lan, C., & Wu, S. (2024). Are managers with investment bank experience myopic? *Journal of Business Research*, 183. <https://doi.org/10.1016/j.jbusres.2024.114857>
- Lai, S., Li, Z., & Yang, Y. G. (2020). East, west, home's best: Do local CEOs behave less myopically? In *Accounting Review* (Vol. 95, Issue 2, pp. 227–255). American Accounting Association. <https://doi.org/10.2308/accr-52555>
- Lambert, R. A. (2001). Contracting theory and accounting. In *Journal of Accounting and Economics* (Vol. 32).
- Larcker, D. F., & Tayan, B. (2023). Seven Gaping Holes in Our Knowledge of Corporate Governance. http://ssrn.com/abstract_id=4416663 www.ecgi.global/content/working-papers Electronic copy available at: <https://ssrn.com/abstract=4416663>
- Lausten, M. (2002). CEO turnover, firm performance and corporate governance: empirical evidence on Danish firms. *International Journal of Industrial Organization*, 20, 391–414. www.elsevier.com/locate/econbase
- Laverty, K. J. (2004). Managerial myopia or systemic short-termism?: The importance of managerial systems in valuing the long term. *Management Decision*, 42(8), 949–962. <https://doi.org/10.1108/00251740410555443>
- Lee, J. M., Park, J. C., & Folta, T. B. (2018). CEO career horizon, corporate governance, and real options: The role of economic short-termism. *Strategic Management Journal*, 39(10), 2703–2725. <https://doi.org/10.1002/smj.2929>
- Lee, M., & Hwang, I. T. (2019). The effect of the compensation system on earnings management and sustainability: Evidence from Korea banks. *Sustainability (Switzerland)*, 11(11). <https://doi.org/10.3390/su11113165>
- Li, C. (2019). Informational benefits of managerial myopia. *Economics Letters*, 185, 108705. <https://doi.org/10.1016/j.econlet.2019.108705>
- Li, Y., & Zhu, Y. (2019, March). CEO Career Horizon and R&D Investments: Evidence from China In 2019 Financial Markets & Corporate Governance Conference.

- Li, Y., Xu, X., Zhu, Y., & Haq, M. (2021). CEO decision horizon and corporate R&D investments: an explanation based on managerial myopia and risk aversion. *Accounting and Finance*, 61(4), 5141–5175. <https://doi.org/10.1111/acfi.12752>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., ... Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. In *Journal of clinical epidemiology* (Vol. 62). <https://doi.org/10.1016/j.jclinepi.2009.06.006>
- Liu, C., & Ali, N. L. (2022). Co-citation and Bibliographic Coupling Based on Connected Papers: Review of Public Opinion Research in a Broad Sense in the West. *Asian Social Science*, 18(7), 29. <https://doi.org/10.5539/ass.v18n7p29>
- Liu, H., & Zhang, Z. (2023). The impact of managerial myopia on environmental, social and governance (ESG) engagement: Evidence from Chinese firms. *Energy Economics*, 122(May), 106705. <https://doi.org/10.1016/j.eneco.2023.106705>
- Liu, R., & Liu, Z. (2020). CEO horizon problem and characteristics of board of directors and compensation committee. In *Journal of Corporate Accounting and Finance* (Vol. 31, Issue 4, pp. 121–134). John Wiley and Sons Inc. <https://doi.org/10.1002/jcaf.22446>
- Liu, Z., Shen, H., Welker, M., Zhang, N., & Zhao, Y. (2021). Gone with the wind: An externality of earnings pressure. *Journal of Accounting and Economics*, 72(1), 101403. <https://doi.org/10.1016/j.jacceco.2021.101403>
- Louche, C., Busch, T., Crifo, P., & Marcus, A. (2019). Financial Markets and the Transition to a Low-Carbon Economy: Challenging the Dominant Logics. *Organization and Environment*, 32(1), 3–17. <https://doi.org/10.1177/1086026619831516>
- Lozano, R. (2015). A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management*, 22(1), 32–44. <https://doi.org/10.1002/csr.1325>
- LSEG. (2023). Environmental, social and governance scores from LSEG. https://www.lseg.com/content/dam/data-analytics/en_us/documents/methodology/lseg-esg-scores-methodology.pdf
- 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(May), 102424.
<https://doi.org/10.1016/j.irfa.2022.102424>
- Lu, Z., Liang, Y., Hu, Y., & Liu, Y. (2024). Is managerial myopia detrimental to corporate ESG performance? *International Review of Economics and Finance*, 92, 998–1015.
<https://doi.org/10.1016/j.iref.2024.02.061>
- Lucier, C., Spiegel, E., & Schuyt, R. (2002). Why CEOs.
- Lukka, K. (2010). The roles and effects of paradigms in accounting research. *Management Accounting Research*, 21(2), 110–115.
- Luo, X., & Bhattacharya, C. B. (2006). Corporate Social Responsibility, Customer Satisfaction, and Market Value. *Journal of Marketing*, 70, 1–18.
<http://www.marketingpower.com/jmblog>.
- Luo, X., Wang, H., Raithel, S., & Zheng, Q. (2015). Corporate social performance, analyst stock recommendations, and firm future returns. *Strategic Management Journal*, 36, 123–136. <https://doi.org/10.1002/smj>
- Ma, Y., & Tao, P. (2023). A perspective on management myopia: The impact of digital transformation on carbon emission intensity. *Sustainability*, 15(12), 9417.
- Maas, K., & Rosendaal, S. (2016). Sustainability Targets in Executive Remuneration: Targets, Time Frame, Country and Sector Specification. *Business Strategy and the Environment*, 25(6), 390–401. <https://doi.org/10.1002/bse.1880>
- Mann, E. C., Safari, N., Oetzel, J., Dillon, S., & Williamson, A. J. (2024). Less is more? Communicating SDG orientation and enterprises' economic performance. *Journal of Business Venturing Insights*, 22, e00470.
- Mansour, M., Al Zobi, M., Saram, M., Daoud, L., & Marei, A. (2023). Does executive compensation matter to bank performance? Experimental evidence from Jordan. *Banks and Bank Systems*, 18(3), 164–176. [https://doi.org/10.21511/BBS.18\(3\).2023.14](https://doi.org/10.21511/BBS.18(3).2023.14)
- Marginson, D., & Mcaulay, L. (2008). Exploring the debate on short-termism: A theoretical and empirical analysis. *Strategic Management Journal*, 29(3), 273–292.
<https://doi.org/10.1002/smj.657>
- Marginson, D., McAulay, L., Roush, M., & Zijl, T. Van. (2010). Performance measures and

- short-termism: An exploratory study. *Accounting and Business Research*, 40(4), 353–370.
<https://doi.org/10.1080/00014788.2010.9995317>
- Matta, E., & Beamish, P. (2008). The accentuated CEO career horizon problem: evidence from international acquisitions. *Strategic Management Journal*, 29(April), 683–700.
<https://doi.org/10.1002/smj>
- Mbanyele, W., Huang, H., & Muchenje, L. T. (2023). Peer performance and short-termism: evidence from green patenting activities. *Applied Economics Letters*, 00(00), 1–5.
<https://doi.org/10.1080/13504851.2023.2205088>
- McClelland, P. L., Barker, V. L., & Oh, W. Y. (2012). CEO career horizon and tenure: Future performance implications under different contingencies. *Journal of Business Research*, 65(9), 1387–1393. <https://doi.org/10.1016/j.jbusres.2011.09.003>
- McNulty, T., Zattoni, A., & Douglas, T. (2013). Developing Corporate Governance Research through Qualitative Methods: A Review of Previous Studies. *Corporate Governance: An International Review*, 21(2), 183–198. <https://doi.org/10.1111/corg.12006>
- Mellahi, K., Frynas, J. G., Sun, P., & Siegel, D. (2016). A Review of the Nonmarket Strategy Literature: Toward a Multi-Theoretical Integration. *Journal of Management*, 42(1), 143–173. <https://doi.org/10.1177/0149206315617241>
- Meng, Y., & Wang, X. (2020). Do institutional investors have homogeneous influence on corporate social responsibility? Evidence from investor investment horizon. *Managerial Finance*, 46(3), 301–322. <https://doi.org/10.1108/MF-03-2019-0121>
- Mikolov, T., Sutskever, I., Chen, K., Corrado, G. S., & Dean, J. (2013). Distributed representations of words and phrases and their compositionality. *Advances in neural information processing systems*, 26.
- Mishra, C. S. (2022). Does institutional ownership discourage investment in corporate R&D? *Technological Forecasting and Social Change*, 182.
<https://doi.org/10.1016/j.techfore.2022.121837>
- Mizik, N. (2010). the Theory and Practice of Myopic Management. *Journal of Marketing Research*, 47(4), 594–611.
- Mizik, N., & Jacobson, R. (2007). Myopic marketing management: Evidence of the

- phenomenon and its long-term performance consequences in the SEO context. *Marketing Science*, 26(3), 361–379. <https://doi.org/10.1287/mksc.1060.0261>
- Moldan, B., Janoušková, S., & Hák, T. (2012). How to understand and measure environmental sustainability: Indicators and targets. *Ecological Indicators*, 17, 4–13. <https://doi.org/10.1016/j.ecolind.2011.04.033>
- Mosakowski, E., & Earley, P. C. (2000). A Selective Review of Time Assumptions in Strategy Research. In *Source: The Academy of Management Review* (Vol. 25, Issue 4).
- Mulugeta, H. E. (2022). Human Rights Issues at Amazon Corporation. *Management Science and Business Decisions*, 2(2), 19–31. <https://doi.org/10.52812/msbd.50>
- Narayanan. (1985). Managerial Incentives for Short-Term Results. *The Journal of Finance*, 40(5), 1469–1484.
- Neubaum, D. O., & Zahra, S. A. (2006). Institutional ownership and corporate social performance: The moderating effect of investment horizon, activism, and coordination. *Journal of Management*, 32(1), 108–131. <https://doi.org/10.1177/0149206305277797>
- Nguyen, P. A., Kecskés, A., & Mansi, S. (2020). Does corporate social responsibility create shareholder value? The importance of long-term investors. *Journal of Banking and Finance*, 112, 105217. <https://doi.org/10.1016/j.jbankfin.2017.09.013>
- Nikolov, A. N. (2018). Managerial Short-Termism: an Integrative Perspective. *Journal of Marketing Theory and Practice*, 26(3), 260–279. <https://doi.org/10.1080/10696679.2018.1450633>
- Oh, W. Y., Chang, Y. K., & Cheng, Z. (2016). When CEO Career Horizon Problems Matter for Corporate Social Responsibility: The Moderating Roles of Industry-Level Discretion and Blockholder Ownership. *Journal of Business Ethics*, 133(2), 279–291. <https://doi.org/10.1007/s10551-014-2397-z>
- Oh, W. Y., Chang, Y. K., & Martynov, A. (2011). The Effect of Ownership Structure on Corporate Social Responsibility: Empirical Evidence from Korea. *Journal of Business Ethics*, 104(2), 283–297. <https://doi.org/10.1007/s10551-011-0912-z>
- Oikonomou, I., Yin, C., & Zhao, L. (2020). Investment horizon and corporate social performance: the virtuous circle of long-term institutional ownership and responsible firm

- conduct. *European Journal of Finance*, 26(1), 14–40.
<https://doi.org/10.1080/1351847X.2019.1660197>
- Ongena, S., Savaşer, T., & Şişli Ciamarra, E. (2022). CEO incentives and bank risk over the business cycle. *Journal of Banking and Finance*, 138.
<https://doi.org/10.1016/j.jbankfin.2022.106460>
- Opper, S., & Burt, R. S. (2021). Social network and temporal myopia. *Academy of Management Journal*, 64(3), 741–771. <https://doi.org/10.5465/AMJ.2019.1026>
- Orazalin, N. (2020). Do board sustainability committees contribute to corporate environmental and social performance? The mediating role of corporate social responsibility strategy. *Business Strategy and the Environment*, 29(1), 140–153. <https://doi.org/10.1002/bse.2354>
- Orduna-Malea, E., Ayllón, J. M., Martín-Martín, A., & Delgado López-Cózar, E. (2015). Methods for estimating the size of Google Scholar. *Scientometrics*, 104(3), 931–949.
<https://doi.org/10.1007/s11192-015-1614-6>
- Palthe, J. (2014). Regulative, Normative, and Cognitive Elements of Organizations: Implications for Managing Change. *Management and Organizational Studies*, 1(2).
<https://doi.org/10.5430/mos.v1n2p59>
- Parmar, B., Freeman, R. E., Harrison, J. S., Wicks, A. C., De Colle, S., & Purnell, L. (2010). Stakeholder theory: The state of the art. *Academy of Management Annals*, 4(1), 403–445.
<https://doi.org/10.1017/CBO9780511815768>
- Pathan, S. (2009). Strong boards, CEO power and bank risk-taking. *Journal of Banking and Finance*, 33(7), 1340–1350. <https://doi.org/10.1016/j.jbankfin.2009.02.001>
- Peng, W. (2022). Managerial Myopia and Corporate Social Responsibility Activities. *Frontiers in Business, Economics and Management*, 5(3), 276–280.
<https://doi.org/10.54097/fbem.v5i3.2035>
- Permatasari, P., & Gunawan, J. (2023). Sustainability policies for small medium enterprises: WHO are the actors? *Cleaner and Responsible Consumption*, 9.
<https://doi.org/10.1016/j.clrc.2023.100122>
- Petticrew, M. (2006). *Systematic Reviews In The Social Sciences: A Practical Guide* By Mark Petticrew. A Practical Guide By Mark Petticrew, 1–10.

- Pickering, C., & Byrne, J. (2014). The benefits of publishing systematic quantitative literature reviews for PhD candidates and other early-career researchers. *Higher Education Research and Development*, 33(3), 534–548. <https://doi.org/10.1080/07294360.2013.841651>
- Pitelis, C. N. (2007). A Behavioral Resource-Based View of the Firm: The Synergy of Cyert and March (1963) and Penrose (1959). *Organization Science*, 18(3), 478–490. <https://www.jstor.org/stable/25146113>
- Post, C., Rahman, N., & Rubow, E. (2011). Green governance: Boards of directors' composition and environmental corporate social responsibility. In *Business and Society* (Vol. 50, Issue 1). <https://doi.org/10.1177/0007650310394642>
- Przychodzen, W., & Gómez-Bezares, F. (2021). CEO–Employee Pay Gap, Productivity and Value Creation. *Journal of Risk and Financial Management*, 14(5). <https://doi.org/10.3390/jrfm14050196>
- Pucheta-Martínez, M. C., & Gallego-Álvarez, I. (2020). Do board characteristics drive firm performance? An international perspective. In *Review of Managerial Science* (Vol. 14). <https://doi.org/10.1007/s11846-019-00330-x>
- Qian, C., Crilly, D., Lin, Y., Zhang, K., & Zhang, R. (2023). Short-Selling Pressure and Workplace Safety: Curbing Short-Termism Through Stakeholder Interdependencies. *Organization Science*, 34(1), 358–379. <https://doi.org/10.1287/orsc.2022.1576>
- Qian, C., Lu, L. Y., & Yu, Y. (2019). Financial analyst coverage and corporate social performance: Evidence from natural experiments. *Strategic Management Journal*, 40(13), 2271–2286. <https://doi.org/10.1002/smj.3066>
- Raar, J. (2002). Environmental initiatives: Towards triple-bottom line reporting. *Corporate Communications: An International Journal*, 7(3), 169–183. <https://doi.org/10.1108/13563280210436781>
- Rasche, A., Waddock, S., & McIntosh, M. (2013). The United Nations Global Compact: Retrospect and Prospect. *Business and Society*, 52(1), 6–30. <https://doi.org/10.1177/0007650312459999>
- Ridge, J. W., Kern, D., & White, M. A. (2014). The influence of managerial myopia on firm strategy. *Management Decision*, 52(3), 602–623. <https://doi.org/10.1108/MD-01-2013->

- Ritz, R. A. (2022). Linking Executive Compensation to Climate Performance. *California Management Review*, 64(3), 124–140. <https://doi.org/10.1177/00081256221077470>
- Rockström, J., Sukhdev, P., 2022. New Way of Viewing the Sustainable Development Goals and How They Are All Linked to Food. Stockholm Resilience Centre/ Stockholm University Available via: <https://www.stockholmresilience.org/research/research-news/2016-06-14-the-sdgs-wedding-cake.html>.
- Rostami, V., Kargar, H., & Samimifard, M. (2022). The Effect of Managerial Myopia on the Adjustment Speed of the Company's Financial Leverage towards the Optimal Leverage. *Journal of Risk and Financial Management*, 15(12). <https://doi.org/10.3390/jrfm15120581>
- Rozmainsky, I. V. (2015). Investor Myopia and Persistence of the Global Crisis: a Post Keynesian View. *Montenegrin Journal of Economics*, 11(1), 107–116.
- Rupley, K. H., Brown, D., & Marshall, R. S. (2012). Governance, media and the quality of environmental disclosure. *Journal of Accounting and Public Policy*, 31(6), 610–640. <https://doi.org/10.1016/j.jaccpubpol.2012.09.002>
- Saboo, A. R., Chakravarty, A., & Grewal, R. (2016). Organizational debut on the public stage: Marketing myopia and initial public offerings. *Marketing Science*, 35(4), 656–675. <https://doi.org/10.1287/mksc.2015.0970>
- Sachs, J. D. (2012). From millennium development goals to sustainable development goals. *The Lancet*, 379(9832), 2206–2211. [https://doi.org/10.1016/S0140-6736\(12\)60685-0](https://doi.org/10.1016/S0140-6736(12)60685-0)
- Sampson, R. C., & Shi, Y. (2023). Are U.S. firms becoming more short-term oriented? Evidence of shifting firm time horizons from implied discount rates, 1980–2013. *Strategic Management Journal*, 44(1), 231–263. <https://doi.org/10.1002/smj.3158>
- Saunders, M. A., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students*. Sixth Edition. Pearson education. www.pearson.com/uk%0Ahttps://www.amazon.com/Research-Methods-for-Business-Students/dp/1292208783/ref=sr_1_2?dchild=1&qid=1614706531&refinements=p_27%3AAdrian+Thornhill+%2F+Philip+Lewis+%2F+Mark+N.+K.+Saunders&s=books&sr=1-2&text=Adrian+Thornhill+%2F+Phili

- Schneider, A., & Meins, E. (2012). Two Dimensions of Corporate Sustainability Assessment: Towards a Comprehensive Framework. *Business Strategy and the Environment*, 21(4), 211–222. <https://doi.org/10.1002/bse.726>
- Schuster, C. L., Nicolai, A. T., & Covin, J. G. (2020). Are Founder-Led Firms Less Susceptible to Managerial Myopia? *Entrepreneurship: Theory and Practice*, 44(3), 391–421. <https://doi.org/10.1177/1042258718806627>
- Segelod, E. (2000). Comparison of managers' perceptions of short-termism in Sweden and the U.S. *International Journal of Production Economics*, 63(3), 243–254. [https://doi.org/10.1016/S0925-5273\(99\)00018-3](https://doi.org/10.1016/S0925-5273(99)00018-3)
- Seo, H. J., Kang, S. J., & Baek, Y. J. (2020). Managerial myopia and short-termism of innovation strategy: Financialisation of Korean firms. *Cambridge Journal of Economics*, 44(6), 1197–1220. <https://doi.org/10.1093/cje/beaa023>
- Seuring, S., & Gold, S. (2012). Conducting content-analysis based literature reviews in supply chain management. In *Supply Chain Management* (Vol. 17, Issue 5, pp. 544–555). <https://doi.org/10.1108/13598541211258609>
- Shang, Y., Xu, J., & Li, J. (2023). The impact of executive compensation incentive on corporate innovation capability: Evidence from agro-based companies in China. *PLoS ONE*, 18(9 September). <https://doi.org/10.1371/journal.pone.0291517>
- Sharma, S., & Ruud, A. (2003). On the path to sustainability: integrating social dimensions into the research and practice of environmental management. *Business Strategy and the Environment*, 12(4), 205–214. <https://doi.org/10.1002/bse.366>
- Shaukat, A., Qiu, Y., & Trojanowski, G. (2016). Board Attributes, Corporate Social Responsibility Strategy, and Corporate Environmental and Social Performance. *Journal of Business Ethics*, 135(3), 569–585. <https://doi.org/10.1007/s10551-014-2460-9>
- Sheng, X., Guo, S., & Chang, X. (2022). Managerial myopia and firm productivity: Evidence from China. *Finance Research Letters*, 49(June), 103083. <https://doi.org/10.1016/j.frl.2022.103083>
- Shin, I., & Park, S. (2020). Role of foreign and domestic institutional investors in corporate sustainability: Focusing on R&D investment. *Sustainability (Switzerland)*, 12(20), 1–13. <https://doi.org/10.3390/su12208754>

- Shirasu, Y., & Kawakita, H. (2021). Long-term financial performance of corporate social responsibility. *Global Finance Journal*, 50(November 2019), 100532. <https://doi.org/10.1016/j.gfj.2020.100532>
- Siegrist, M., Bowman, G., Mervine, E., & Southam, C. (2020). Embedding environment and sustainability into corporate financial decision-making. *Accounting and Finance*, 60(1), 129–147. <https://doi.org/10.1111/acfi.12533>
- Singh, A. P., & Rahman, Z. (2021). Integrating corporate sustainability and sustainable development goals: towards a multi-stakeholder framework. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2021.1985686>
- Slawinski, N., & Bansal, P. (2015). Short on time: Intertemporal tensions in business sustainability. *Organization Science*, 26(2), 531–549. <https://doi.org/10.1287/orsc.2014.0960>
- Slawinski, N., Pinkse, J., Busch, T., & Banerjee, S. B. (2017). The Role of Short-Termism and Uncertainty Avoidance in Organizational Inaction on Climate Change: A Multi-Level Framework. *Business and Society*, 56(2), 253–282. <https://doi.org/10.1177/0007650315576136>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104(March), 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Soana, M. G. (2024). Environmental strategies, environmental performance and board sustainability committees: Are financial and non-financial companies different? *Research in International Business and Finance*, 69. <https://doi.org/10.1016/j.ribaf.2023.102208>
- Souder, D., & Bromiley, P. (2012). Explaining Temporal Orientation: Evidence from the Durability of Firms' Capital Investments. *Strategic Management Journal*, 33, 550–569. <https://doi.org/10.1002/smj>
- Sridhar A. Raj. (2017). The Volkswagen Way, Profits over Sustainability. *Journal of Marketing Vistas*, 7(2), 50–59.
- Srinivasan, R., & Ramani, N. (2019). With power comes responsibility: How powerful marketing departments can help prevent myopic management. *Journal of Marketing*, 83(3), 108–125. <https://doi.org/10.1177/0022242919831993>

- Sternad, D., & Kennelly, J. J. (2017). The sustainable executive: antecedents of managerial long-term orientation. *Journal of Global Responsibility*, 8(2), 179–195. <https://doi.org/10.1108/JGR-04-2017-0026>
- Stock, J. H., Wright, J. H., & Yogo, M. (2002). A survey of weak instruments and weak identification in generalized method of moments. In *Journal of Business and Economic Statistics* (Vol. 20, Issue 4, pp. 518–529). <https://doi.org/10.1198/073500102288618658>
- Stolowy, H., & Paugam, L. (2023). Sustainability Reporting: Is Convergence Possible? *Accounting in Europe*, 20(2), 139–165. <https://doi.org/10.1080/17449480.2023.2189016>
- Tan, X., Yu, L., & Fung, H. G. (2022). Firms with short-termism: Evidence from expatriate controlling shareholders. *Pacific Basin Finance Journal*, 73(March), 101770. <https://doi.org/10.1016/j.pacfin.2022.101770>
- Tanthanongsakkun, S., Kyaw, K., Treepongkaruna, S., & Jiraporn, P. (2022). Carbon emissions, corporate governance, and hostile takeover threats. *Business Strategy and the Environment*, (June), 1–15. <https://doi.org/10.1002/bse.3273>
- Tauringana, V., & Chithambo, L. (2015). The effect of DEFRA guidance on greenhouse gas disclosure. *British Accounting Review*, 47(4), 425–444. <https://doi.org/10.1016/j.bar.2014.07.002>
- Thomas, J., Yao, W., Zhang, F., & Zhu, W. (2022). Meet, beat, and pollute. *Review of Accounting Studies*, 27(June), 1038–1078.
- 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>
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review* Introduction: the need for an evidence- informed approach. *British Journal of Management*, 14, 207–222.
- Treepongkaruna, S., Kyaw, K., & Jiraporn, P. (2024). ESG controversies, corporate governance, and the market for corporate control. *Journal of Sustainable Finance & Investment*, 14(4), 815-842.

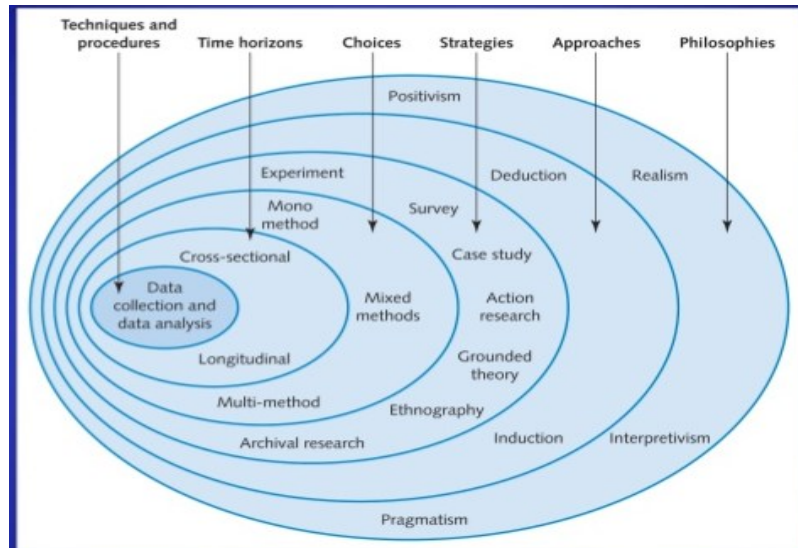
- Turedi, S., & Erkan-Barlow, A. (2022). CIO equity compensation and IT investment: the moderating role of board monitoring and evidence of managerial myopia. *Review of Behavioral Finance*. <https://doi.org/10.1108/RBF-04-2022-0118>
- Van Wyk, L.-M., & Wesson, N. (2021). Alignment of executive long-term remuneration and company key performance indicators: An exploratory study. *Journal of Economic and Financial Sciences*, 14(1). <https://doi.org/10.4102/jef.v14i1.564>
- Velte, P. (2023). Which institutional investors drive corporate sustainability? A systematic literature review. *Business Strategy and the Environment*, 32(1), 42–71. <https://doi.org/10.1002/bse.3117>
- Villalonga, B. (2018). The impact of ownership on building sustainable and responsible businesses. *Journal of the British Academy*, 6(s1), 375–403. <https://doi.org/10.5871/jba/006s1.375>
- Vrontis, D., & Christofi, M. (2021). R&D internationalization and innovation: A systematic review, integrative framework and future research directions. *Journal of Business Research*, 128(December 2018), 812–823. <https://doi.org/10.1016/j.jbusres.2019.03.031>
- Wagner, M. (2010). The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects. *Ecological Economics*, 69(7), 1553–1560. <https://doi.org/10.1016/j.ecolecon.2010.02.017>
- Wagner, M. (2015). The link of environmental and economic performance: Drivers and limitations of sustainability integration. *Journal of Business Research*, 68(6), 1306–1317. <https://doi.org/10.1016/j.jbusres.2014.11.051>
- Wang, C. L., & Chugh, H. (2014). Entrepreneurial learning: Past research and future challenges. *International Journal of Management Reviews*, 16(1), 24–61. <https://doi.org/10.1111/ijmr.12007>
- Wang, D. H.-M., & Wu, S.-R. (2007). On the Relationship between Corporate Governance and Managerial Myopia. *KANSEI Engineering International*, 7(1), 9–17. <https://doi.org/10.1080/0963948032000128618>
- Wang, X. (2024). Too much incentive to innovate? CEO stock option exercise and myopic R&D management. *Journal of Product Innovation Management*. <https://doi.org/10.1111/jpim.12731>

- Watts, R. L., & Zimmerman, J. L. (1978). Towards a Positive Theory of the Determination of Accounting Standards. *Accounting Review*, 112-134.
- Weick, K. E. (1989). Theory Construction as Disciplined Imagination. *Academy of Management Review*, 14(4), 516–531.
- Windolph, S. E., Schaltegger, S., & Herzig, C. (2014). Implementing corporate sustainability: What drives the application of sustainability management tools in Germany? *Sustainability Accounting, Management and Policy Journal*, 5(4), 374–404. <https://doi.org/10.1108/SAMPJ-01-2014-0002>
- Withisuphakorn, P., & Jiraporn, P. (2016). The effect of firm maturity on corporate social responsibility (CSR): do older firms invest more in CSR? *Applied Economics Letters*, 23(4), 298–301. <https://doi.org/10.1080/13504851.2015.1071464>
- Wongsinhirun, N., Chatjuthamard, P., Jiraporn, P., & Phiromswad, P. (2022). Do takeover threats influence corporate social responsibility? Evidence from hostile takeover vulnerability. *Corporate Social Responsibility and Environmental Management*, 29(5), 1203–1213. <https://doi.org/10.1002/csr.2264>
- Wowak, A. J., Gomez-Mejia, L. R., & Steinbach, A. L. (2017). Inducements and motives at the top: A holistic perspective on the drivers of executive behavior. *Academy of Management Annals*, 11(2), 669–702. <https://doi.org/10.5465/annals.2015.0121>
- Wu, J., Liu, B., Zeng, Y., & Luo, H. (2022). Good for the firm, good for the society? Causal evidence of the impact of equity incentives on a firm's green investment. *International Review of Economics and Finance*, 77, 435–449. <https://doi.org/10.1016/j.iref.2021.10.013>
- Xu, X., & Yang, J. (2023). Does managerial short-termism always matter in a firm's corporate social responsibility performance? Evidence from China. *Heliyon*, 9(3), e14240. <https://doi.org/10.1016/j.heliyon.2023.e14240>
- Yadava, R. N., & Sinha, B. (2016). Scoring Sustainability Reports Using GRI 2011 Guidelines for Assessing Environmental, Economic, and Social Dimensions of Leading Public and Private Indian Companies. *Journal of Business Ethics*, 138(3), 549–558. <https://doi.org/10.1007/s10551-015-2597-1>
- Ye, C., Song, X., & Liang, Y. (2022). Corporate sustainability performance, stock returns, and

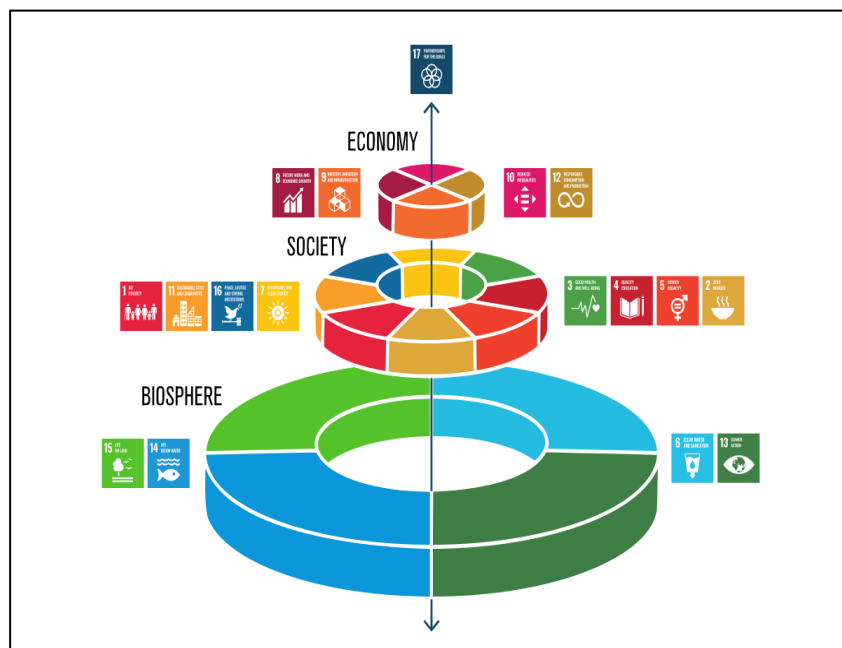
- ESG indicators: fresh insights from EU member states. *Environmental Science and Pollution Research*, 29(58), 87680–87691. <https://doi.org/10.1007/s11356-022-20789-8>
- Yuan, Y., Hu, M., & Cheng, C. (2023). CEO succession and corporate innovation: A managerial myopic perspective. *North American Journal of Economics and Finance*, 64(December 2022), 101863. <https://doi.org/10.1016/j.najef.2022.101863>
- Yueting, L., Jianling, W., & Xuan, W. (2019). Distracted institutional shareholders and managerial myopia: Evidence from R&D expenses. *Finance Research Letters*, 29(December 2018), 30–40. <https://doi.org/10.1016/j.frl.2019.03.024>
- Zeng, Y., Zhao, X., & Zhu, Y. (2023). Equity incentives and ESG performance: Evidence from China. *Finance Research Letters*, 58. <https://doi.org/10.1016/j.frl.2023.104592>
- Zhao, J., Chankoson, T., Cheng, W., & Pongtornkulpanich, A. (2023). Executive compensation incentives, innovation openness and green innovation: evidence from China's heavily polluting enterprises. *European Journal of Innovation Management*. <https://doi.org/10.1108/EJIM-01-2023-0064>

Appendices

Appendix A Fig.A: Research Onion by Saunders et al. (2012)



Appendix A Fig.B: The SDGs wedding cake



Appendix B Table. A: Distribution across the study disciplines

No.	Journal Discipline	No. of Articles
1	General Management, Ethics, Gender and Social Responsibility	15
2	Accounting and Finance	12
3	Strategy	4
4	Economics	4
5	Organization studies	3
6	Sustainability Studies	3
7	Regional studies, planning and environment	2
8	Social sciences	2
9	International Business and Area Studies	2
10	Operations Research and Management Science	1
11	Sector studies	1
12	Marketing	1
13	Operations and technology management	1
14	International business, economics and management	1
15	Multidisciplinary	1
	TOTAL	53

Appendix C Table. B: Theories Frequency and Author(s)

No. of theories	No. of art.	Author(s)
<u>One theory</u>		
Stakeholder theory	9	Choi, Kim and Lee (2020); Kim et al. (2019); Meng and Wang (2020); Oikonomou et al. (2020); Qian et al. (2023); Qian et al. (2019); Shirasu and Kawakita (2021); Smith et al. (2010)
Agency theory	8	Flammer and Bansal (2017); Flammer et al. (2019); Fu, Tang and Yan (2019); Gloßner (2019); Kacperczyk (2009); Kordsachia et al. (2022); Nguyen, Kecskes and Mansi (2020); Post et al. (2011); Tanthanongsakkun et al. (2022)
Institutional theory	1	Kim et al. (2013)
Social network theory	1	Opper & Burt (2021)
Rivalry theory	1	Mbanyele et al. (2023)
Organisation theory	1	Slawinski et al. (2017)
Earnings management theory	1	Liu et al. (2021)
Environmental policy theory	1	Huang et al. (2023)
Stakeholder salience theory	1	Neubaum and Zahra (2006)
<u>Two theories</u>		
Agency and Stakeholder theory	4	Deckop et al. (2006); Erhemjats and Huang (2019); Han et al. (2022); Shin and Park (2020)
Agency and Resource-based theory	1	Siegrist et al. (2020)
Agency and Managerial myopia theory	1	Wongsinhirun et al. (2022)
Upper echelon and Time-oriented theory	1	Peng (2022)
Upper echelon and Slack resources theory	1	Oh, Chang and Cheng (2016)
Upper echelon and social exchange theory	1	Sternad & Kennelly (2017)
Organisation and Myopia theory	1	Laverty (2004)
Signalling and Corporate governance theory	1	Hu et al. (2023)
Stakeholder and Resource-based view theory	1	Graafland (2016)
Instrumental and Normative view theory	1	Chen et al. (2022)

No. of theories	No. of art.	Author(s)
<u>Three theories</u>		
Agency, Resource dependence and Slack-resource theory	1	Yong Oh et al. (2011)
Agency, Upper echelon and Time-oriented theory	1	Xu and Yang (2023)
Stakeholder, Upper echelon and Signalling theory	1	Chen et al. (2019)
Stakeholder, Institutional and Slack resources theory	1	Graafland and Smid (2015)
<u>Four theories</u>		
Agency theory, Insurance hypothesis, Risk mitigation hypothesis and Myopia reduction hypothesis	1	Jaroenjittkam, Treepongkaruna and Jiraporn (2022)
No Specific Theory(s)	11	Beale et al. (2009); Boubaker et al. (2017); Bourveau, Brochet and Garel (2022); Dyck et al. (2019); Galbreath (2017); Liu and Zhang (2023); Louche et al. (2019); Slawinski & Bansal (2015); Tan, Yu & Fung (2022); Thomas et al. (2022)
TOTAL	53	

Appendix D Table. C: Empirical studies' findings and results (comprehensive table)

Theme	Author	Year	Country	Sample (time-period)	Myopia source	Findings	Results
Managerial Characteristics	Oh, Chang and Cheng	2016	USA	223 firms (2004-2009)	increase in CEO age	increase managerial myopia which leads to significant and negative relation with CSR performance under conditions	CEO age (0/-ve)
	Opper & Burt	2021	China	700 firms (2012)	network closure	exacerbate managerial myopia and significantly reduce firms' social performance	Network closure (-ve)
	Chen et al.	2019	USA	11,012 firm-year observations (1999-2013)	CEO tenure	display short-termism and has a significant and negative association with CSR performance	CEO tenure(-ve)
	Choi, Kim and Lee	2020	Korea	332 firms (2012-2016)	CEO tenure	There is non-significant positive or negative relationship in the early years, however, the short-termism exacerbates with a significant negative relation on CSR performance in the last years	CEO tenure (0/-ve)
	Liu and Zhang	2023	China	1927 non-financial firms (2008-2019)	Personal ST attribute	managerial myopia has a significant and negative impact on ESG performance	Managerial myopia (-ve)
	Peng	2022	China	22,661 non-financial observations (2010-2020)	Personal ST attribute	managerial myopia has a significant and negative impact on CSR performance	Managerial myopia (-ve)
	Xu and Yang	2023	China	4913 non-financial firm-year observations (2008-2017)	Personal ST attribute	managerial myopia has a significant and negative impact on CSR performance	Managerial myopia (-ve)
Board structure	Galbreath	2017	Australia	300 firms (2012)	increase in insider directors	increase managerial myopia which has significant and negative effect on CSR performance	Insider directors (-ve)
	Post et al.	2011	USA	78 non-financial firms (2006-2007)	increase in outsider directors	reduce managerial myopia which has significant and positive effect on CSR performance	Outsider directors (+ve)

Theme	Author	Year	Country	Sample (time-period)	Myopia source	Findings	Results
Executive compensation	Deckop et al.	2006	USA	313 firms (2001)	CEO pay structure	Short-term pay focus correlates significantly and negatively with corporate social performance whereas the long-term variable correlates significantly and positively with CSP	ST pay focus (-ve) LT pay focus (+ve)
	Flammer and Bansal	2017	USA	808 firms (1997-2012)	executives' incentives	the passage of long-term compensation proposals counteracts short-termism and has a significant and positive association with sustainability performance	LT compensation proposal (+ve)
	Flammer et al.	2019	USA	4533 firm-year observations (2004-2013)	adoption of CSR standards in managers' compensation	mitigates managerial myopia and has a significant and positive effect on social and environmental performance and green innovations, with a significant and negative effect on emissions intensity	CSR compensation (+ve/-ve)
Institutional ownership	Boubaker et al.	2017	USA	3440 firms (2003-2009)	investor time horizon	myopic institutional investors significantly decrease CSR performance whereas non-myopic institutional investors significantly increase CSR performance	ST investors (-ve) LT investors (+ve)
	Dyck et al.	2019	global (41 countries)	3277 firms (2004-2013)	percentage of institutional ownership	institutional investors are non-myopic and lead to a significant and positive effect on environmental and social performance	Ins.Inv (+ve)
	Erhemjmts and Huang	2019	USA	2860 non-financial firms (2003-2013)	increase or decrease in investors' churn rate	significant and positive (negative) relationship between non-myopic (myopic) institutional investors and CSR performance	ST investors (-ve) LT investors (+ve)
	Fu, Tang and Yan	2019	USA	90,426 firm quarter observations (1995-2012)	increase or decrease in investors' churn rate	significant and positive (negative) relationship between non-myopic (myopic) institutional investors and CSR performance	ST investors (-ve) LT investors (+ve)
	Gloßner	2019	USA	5302 firms (1991-2013)	investment duration	short-term myopic investors significantly decrease CSR performance whereas long-term non-myopic investors significantly increase CSR performance	ST investors (-ve) LT investors (+ve)

Theme	Author	Year	Country	Sample (time period)	Myopia source	Findings	Results
Institutional ownership	Kim et al.	2019	USA	22,073 firm-year observations (1995-2012)	investors' investment horizon	active long-term investors are positively related to CSR activities while passive long-term investors show no significant effect	Active LT invest (+ve) Passive LT invest (0)
	Kordsachia et al.	2022	29 European countries	921 firms (2008-2017)	investment duration	non-myopic institutional investor is significantly and positively associated with environmental performance	Ins.Inv (+ve)
	Meng and Wang	2020	USA	4,081 non-financial firms (1991-2013)	investment horizon	short-term myopic investors significantly decrease CSR performance whereas long-term non-myopic investors significantly increase CSR performance	ST investors (-ve) LT investors (+ve)
	Neubaum and Zahra	2006	USA	357 firms (1993-1998)	institutional owners' activism	long-term non-myopic investors significantly increase CSR performance whereas short-term myopic investors significantly decrease CSR performance	ST investors (-ve) LT investors (+ve)
	Nguyen, Kecskes and Mansi	2020	USA	3592 firms (1991-2009)	investor horizon	long-term investors are non-myopic and correlate significantly and positively with CSR performance	LT investors (+ve)
	Oikonomou et al.	2020	USA	3,714 firms (1991-2012)	investment horizon	non-myopic long term institutional investment is positively related to corporate social performance whereas myopic short-term institutional investment is negatively related to corporate social performance.	ST investors (-ve) LT investors (+ve)
	Shin and Park	2020	Korea	7655 non-financial firm-year observations (2001-2004)	domestic and foreign institutional ownership	foreign institutional investors effectively moderate managerial myopia and correlate significantly and positively with the level of sustainability investment, while the ownership of domestic institutional investors shows no significant relation	Foreign Ins.Inv (+ve) Domestic Ins.Inv (0)
	Shirasu and Kawakita	2021	Japan	4060 observations (2004-2014)	financial institutions and shareholders' time horizon	non-myopic with strong governance long-term investors correlate significantly and positively with CSR performance	LT investors (+ve)

	Author	Year	Country	Sample (time period)	Myopia source	Findings	Results
	Yong Oh et al.	2011	Korea	118 firms	percentage of managerial, institutional and foreign ownership	institutional and foreign investors' ownership are myopic which correlate significantly and positively with the level of CSR. In contrast, outside directors' ownership shows a non-significant relation, while top manager's share ownership is myopic and exhibits an inverse relation with the level of CSR	Ins.Inv (+ve) For.Inv (+ve) TMOwn (-ve) ODOwn (0)
Analyst coverage	Han et al.	2022	China	13081 firm-year observations (2003-2017)	analysts' pressure	coverage reduce managerial myopia which has significant and positive relation with firm's environmental performance	Analyst coverage (+ve)
	Hu et al.	2023	China	30,937 observations (2008-2020)	analysts' pressure	coverage reduce managerial myopia which has significant and positive relation with firm's environmental performance	Analyst coverage (+ve)
	Qian et al.	2019	USA	11,061 observations (2001-2013)	analysts' pressure	coverage increase managerial myopia which has significant and negative relation with environmental performance	Analyst coverage (-ve)
Takeover vulnerability	Kacperczyk	2009	USA	878 firms (1991-2002)	increase in takeover protection	reduce managerial myopia and has significant and positive influence on environmental performance with no impact on social performance	Takeover protection (+ve/0)

Theme	Author	Year	Country	Sample (time-period)	Myopia source	Findings	Results
Takeover vulnerability	Tanthanongsakkun et al.	2022	USA	6236 observations (2002-2014)	stronger threats takeover	mitigate managerial myopia and have significant and positive relation with environmental performance	Takeover threats (+ve)
	Wongsinhirun et al.	2022	USA	9200 firm-year observations (1997-2012)	increase in takeover protection	increase in managerial myopia which leads to a significant and negative relationship with CSR performance	Takeover vulnerability (-ve)
Governance regulation and legislation	Bourveau, Brochet and Garel	2022	France	342 non-financial firms (2010-2018)	adoption of the 2014 Florange Act	increase managerial myopia which leads to a significant and negative relation with CSR performance	Adoption of F. Act (-ve)
	Huang et al.	2023	China	15,349 observations (2008-2018)	the effect of the new environmental protection law	increase managerial myopia which has a significant and positive effect on the quantity of green innovation, however, the quality of green innovation shows a significant and negative relationship	New env. law (+ve/-ve)
	Jaroenjitkam, Treepongkaruna and Jiraporn	2022	USA	11,699 observations (1996-2012)	decrease in litigation risk	decrease managerial myopia and correlates significantly and positively with CSR performance	Litigation risk (+ve)

Theme	Author	Year	Country	Sample (time-period)	Myopia source	Findings	Results	
Market competition	Graafland	2016	12 EU countries	3152 firms (2007-2010)	intensity of price competition	exacerbate managerial myopia and relate significantly and negatively to environmental performance	Price competition (-ve)	
	Graafland Smid	and 2015	global	205 firms (2010)	intensity of price and technological competition	there is no relation between price competition and CSP, but technological competition mitigates managerial myopia with significant and positive relationship existing with CSP	Price competition (0) Technological competition (+ve)	
	Qian et al.	2023	USA	17203 observations (2002-2006)	the effect of short-selling pressure	the existence of myopic management that correlates significantly and positively with workplace injuries	Short-selling pressure (-ve)	
	Chen et al.	2022	China	88 SMEs (2016-2018)	external pressure	CSR-related	increase short-termism which has significant and negative effect on the quality of sustainability performance	External CSR pressure (-ve)
	Mbanyele et al.	2023	USA	59,578 non-financial firm-year observations (1988-2015)	peer performance pressure		increase the myopic behaviour with significant and negative correlation with firm's environmental performance (green innovation)	Peer performance pressure (-ve)

Theme	Author	Year	Country	Sample (time-period)	Myopia source	Findings	Results
Market competition	Liu et al.	2021	China	8,020 observations (2003-2012)	earnings benchmark	increase short-termism which has significant and negative relation with environmental performance (increase level of SO2 emission)	Analyst forecast (-ve)
	Thomas et al.	2022	USA	559 firms (1994-2018)	earnings benchmark	increase short-termism which has significant and negative relation with environmental performance (increase level of TRI toxins)	Analyst forecast (-ve)
Contextual	Choi, Kim and Shenkar	2023	global (50 countries)	10,750 observations (2010-2012)	country, institution and investor-level time horizon	higher LTO measure, R&D and CAPEX intensity mitigate temporal orientation and relate significantly and positively with CSR performance while investor turnover rate exacerbates short-term orientation which is related significantly but negatively to the level of CSR performance	Country LT orientation (+ve) CAPEX and R&D (+ve) Investor turnover rate (-ve)
	Tan, Yu & Fung	2022	China	14,022 non-financial firm-year observations (2007-2017)	controlling shareholder's immigration	increase managerial myopia which correlates significantly and negatively with CSR investments	controlling shareholder immigration (-ve)

Note: **ST:** short-term. **LT:** long-term. **Ins.Inv:** institutional investors. **For.Inv:** foreign investors. **TMOwn:** top management ownership. **ODOwn:** outside director ownership
(+ve): significant and positive. **(-ve):** significant and negative. **(0):** insignificant. **(0/-ve):** mixed results, insignificant and significant/negative. **(+ve/0):** mixed results, significant/positive and insignificant. **(+ve/-ve):** mixed results, significant/positive and significant/negative.