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ESG Dynamics in Family Firms: Performance, Constraints, and Future Directions

DOCTORAL DISSERTATION

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Abstract

The escalating global focus on sustainability has underscored the critical importance of Environmental, Social, and Governance (ESG) practices within the corporate landscape. Family-owned businesses, which anchor numerous socio-economic systems, are increasingly scrutinized for their engagement in these practices. This doctoral thesis explores the intricate dynamics between Socioemotional Wealth (SEW) and ESG engagement within family firms (FFs), emphasizing China's unique institutional, economic, and cultural contexts. This research addresses a significant gap in the existing literature by offering nuanced insights into how familial values intertwined with formal governance can foster sustainable business practices, especially in regions where FFs predominate.

FFs, characterized by their emphasis on preserving and enhancing family legacy and socioemotional wealth, are naturally inclined towards long-term strategic planning that aligns with the principles of ESG. The concept of SEW is pivotal, emphasizing non-financial goals such as maintaining family control, identity, and legacy. These goals drive FFs to adopt strategies that might sacrifice short-term financial returns for long-term sustainability and reputation, aligning closely with ESG objectives. However, despite the theoretical synergy between SEW and ESG, the actual integration of these practices in FFs still needs to be explored, particularly in terms of how these firms balance internal family expectations with external social responsibilities. This study delves into these complexities, offering a framework highlighting the potential for FFs to enhance their long-term sustainability and economic performance through tailored ESG strategies.

The dissertation unfolds through a methodologically robust approach, beginning with a bibliometric analysis to systematically review the current state of ESG research within FFs. This initial phase identifies existing gaps and sets the stage for further investigation by highlighting critical underexplored areas such as regional environmental impacts, corporate ownership structures, and business performance metrics. These dimensions are vital for guiding future scholarly exploration and formulating relevant ESG strategies in FFs.

Subsequently, the thesis delves into how the alignment of SEW with ESG practices can enhance financial performance and sustainability within FFs. It reveals that while individual ESG aspects

generally show positive correlations with environmental and governance initiatives, the interplay with social initiatives is more complex and heavily influenced by the moderating role of institutional investors. This discovery points to the varied impacts of ESG components and the need for a holistic approach to integrating these practices within the strategic objectives of family businesses.

Moreover, the research contributes to theory and practice by elucidating the synergistic potential of integrating SEW with ESG frameworks. It presents empirical evidence suggesting that such integration enhances FFs long-term sustainability and economic performance, thereby providing actionable insights for business leaders and policymakers. The study advocates for developing tailored ESG strategies that reflect the unique characteristics and needs of family businesses, emphasising a balance between regulatory compliance and the preservation of familial values.

In conclusion, this dissertation enriches the academic discourse on corporate sustainability within family-owned businesses by providing a foundational framework for future inquiries into the effective integration of ESG practices. offers a nuanced understanding of how familial values intertwined with formal governance mechanisms can promote sustainable business practices. Potentially, the insights derived from this study have broader implications, suggesting potential applicability to other developing countries and regions in East Asia, where similar socio-economic and cultural dynamics may influence ESG adoption in family businesses.

Keywords: Family business, ESG, Sustainable development, Corporate social responsibility, Equity structure, Chinese family businesses

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Blessings to all who have been part of this journey. Thank you, each and every one of you!

Acronym list

CSR: Corporate social responsibility

ESG: Environmental, social, and corporate governance

FB: Family business

FF: Family firm

FP: Financial performance

Q: Tobin's Q

ROA: Return on total assets

SA: SA index financial constraints

SEW: Social emotional wealth

SDG: Sustainable Development Goals

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Chapter 1: General introduction

1.1 Research context and theoretical background

Humanity currently faces escalating challenges, including environmental degradation, climate change, disparate development, hunger, and poverty. The imperative for a global sustainability agenda is more urgent than ever. In response, the United Nations launched the 17 Sustainable Development Goals (SDGs) to advocate for enhanced public welfare and sustainable business practices.Against this backdrop, the call for sustainability has grown louder, compelling enterprises to assess and mitigate sustainability risks in their development strategies and align them with long-term responsible practices. Environmental, Social, and Governance (ESG) considerations have subsequently emerged as pivotal indicators, becoming mainstream in sustainable business advocacy. These ESG factors are crucial for meeting the SDGs as they provide concrete frameworks for businesses to implement sustainable practices that directly (Gillan et al., 2010, 2021).

As one of the most important business models in the world, family businesses (FBs) play a crucial role in this sustainability war (Alazzani et al., 2021). The nexus between family firm (FF) and their commitment to ESG principles has garnered substantial attention within the academic community, evidencing a rich vein of inquiry (Abeysekera & Fernando, 2020; Baraibar-Diez & D.Odriozola, 2019; Gillan et al., 2021; Rees & Rodionova, 2015). The substantial role of FBs in driving global economic growth and employment further underscores the importance of this exploration. Approximately one-third of the entities listed on the S&P 500 are family-owned, with evidence suggesting that FFs often outperform their non-family counterparts (Anderson & Reeb, 2008). This trend is not confined to the United States; in Western Europe, FFs constitute about 44% of large enterprises (Faccio & Lang, 2002), with more than 50% of businesses in European countries being family-oriented (Barontini & Caprio, 2006). FBs are more prevalent in China, representing over 80% of private enterprises (Zhang, Fang, et al., 2022). In certain Asian economies like Hong Kong, family entities exert considerable economic influence, controlling assets significant to the region's economic development (Dinh & Calabrò, 2019).

Characteristically, FBs are marked by centralised ownership and control, often intertwined with a pronounced culture of nepotism. Within this context, pursuing non-financial objectives, including

maintaining family identity and perpetuating family legacies, often takes precedence over traditional business goals (Deephouse & Jaskiewicz, 2013). Such priorities give rise to behaviours aimed at preserving Socio-emotional wealth (SEW), a concept that encapsulates the family's desire to maintain its influence, ensure continuity, and bolster the family's collective identity and reputation through the business (Davila et al., 2023; Gómez-Mejía et al., 2007; Miller & Le Breton–Miller, 2014).

Specifically, FB's SEW includes distinctive features to distinguish it from non-FB. Family control and influence: FBs prioritise maintaining control of the business and ensuring that decision-making power remains within the family; family members often view the company as an extension of themselves and their family identity, and the relationships and networks that the family develops through the business are important part of SEW (Zellweger & Nason, 2008). These connections can influence companies by promoting community involvement and philanthropy. An FF's emotional significance to family members can drive their commitment to sustainable practices, leaving a positive legacy (Querbach et al., 2021). The desire to pass on a business to future generations prompts FBs to consider the long-term impact of their actions, including sustainability and ethical practices that ensure business longevity (Miller & Le Breton–Miller, 2014). FBs' pursuit and desire for long-term development coincides with the mission of ESG.

The prominence of these three indicators is not coincidental. In family businesses, the environmental dimension of ESG resonates deeply with their long-term outlook and legacy concerns. These firms often see their environmental responsibility as continuing their stewardship for future generations. The tightening of global environmental regulations can pose significant risks to these businesses, including fines and operational disruptions (Adomako et al., 2019). Conversely, FFs have a vested interest in maintaining a sustainable operation that preserves the environment, not only to comply with laws but also to uphold their reputation and ensure business continuity for their successors. Family-owned firms might be more motivated than non-family firms to invest in cleaner technologies or transform their operational processes to become more sustainable (Borralho et al., 2022). Such proactive environmental management is seen as a compliance activity and a critical component of their legacy and commitment to future generations.

The social metrics in ESG, encompassing employee relations, supply chain management, philanthropy, and social accountability, are particularly significant for family businesses due to their community-oriented nature and emphasis on personal reputation. Family firms often build their business around strong community ties and ethical practices, as these elements enhance their social capital and align with their SEW values. In essence, businesses are urged to adopt voluntary accountability, emphasising economic profitability and legal, ethical, and social contributions (W. Ali et al., 2017). FBs can enhance their long-term commitment to social responsibility, such as investing in employee welfare or community development, which not only aligns with their ethical standards but also builds consumer trust and stakeholder favour, leading to enhanced financing opportunities and profitability, long-term dedication to social responsibility can enhance consumer trust and stakeholder favour (Borghesi et al., 2014). This, in turn, facilitates greater financing opportunities, profitability, and cash flow. Conversely, neglecting social responsibilities can damage the family's reputation and the firm's social license to operate, posing a risk to its continuity (Kolk, 2016).

Governance practices within FBs are crucial due to the overlap between family control and business management. The focus on anti-corruption measures, transparency in information disclosure, and adherence to tax regulations is heightened in family firms because governance issues directly impact family reputation and the long-term health of the business. The pillars of transparency and accountability ensure that management and investors are well-informed about pertinent issues. Sound governance practices mitigate operational risks and bolster the company's reputation, fostering sustainable growth and confidence among investors (F. Jiang & Kim, 2015). An effective audit committee is imperative for financial integrity and fraud prevention (Cheng et al., 2014). Proper governance aligns stakeholders' interests with those of the management and board, underpinning the long-term sustainability and development of the enterprise (Jain & Shao, 2015). Crucial governance systems and mechanisms for family businesses that often view their operations through the lens of generational continuity and legacy preservation.

The relationship between SEW and ESG is subtle but significant. Attention to family legacy, reputation, and identity can lead FBs to adopt proactive ESG practices (Breton-Miller & Miller, 2016; Yoon et al.,

2018). Environmentally, FFs adopt green technologies, reduce waste, and implement sustainable supply chains to mitigate their ecological footprint, satisfy their emotional and reputational demands (Miroshnychenko et al., 2022). Socially, these firms often engage in community development projects, employee welfare programs, and philanthropy, which contribute to social well-being, enhance the family's reputation, and fulfil its desire for a positive legacy (Abeysekera & Fernando, 2020). From a governance perspective, FFs have great motivation and confidence to strengthen the family's ability to control the company and further maintain the company's long-term development of ethical business practices and anti-corruption measures, aligning with the governance of the family's management vision remains consistent, to ensure the business's longevity and integrity (Barbera et al., 2022).

Despite the potential for synergy between SEW and ESG practices, family firms face significant challenges in aligning these strategies. Evidence suggests that the adoption of ESG practices often involves substantial upfront costs with deferred returns, necessitating a delicate balance with the immediate financial expectations tied to household income and lifestyle (W. C. Wong et al., 2021).This financial dynamic places family firms in a precarious position, as the prioritization of short-term financial stability may eclipse the potential long-term gains from sustainable development(Arayssi & Jizi, 2023).

This misalignment is further complicated by the inherent emphasis on protecting the family's reputation, which can lead to a cautious approach to ambitious ESG strategies. Moreover, ESG disclose leads to greater transparency in strategy and management, which can inadvertently reveal strategic insights to competitors or highlight areas of vulnerability (Roffia et al., 2021; Thahira & Mita, 2019). The risk is that unsuccessful or publicly scrutinised ESG endeavours could tarnish the family's legacy and deter full engagement with comprehensive sustainability efforts.

Consequently, the interplay between SEW and ESG in FBs presents a complex landscape fraught with both opportunities and significant risks. The nuanced relationship demands a thorough exploration to unravel how family firms can navigate these waters without compromising their immediate financial stability or long-term sustainability goals. This dissertation aims to delve deeper into this

interrelationship, proposing to investigate strategic approaches that family businesses can employ to harmonize these potentially conflicting priorities. Such an inquiry is essential for developing frameworks that not only foster ESG integration in line with family values but also enhance the resilience and adaptability of FFs in the face of evolving global standards.

1.2 Research questions and objectives

Research in the domain of family business studies has consistently indicated a correlation between family involvement and firm performance, with many studies highlighting the positive impacts of integrating sustainability strategies (Kubíček & Machek, 2020). However, a considerable gap exists in understanding the reasons behind the diversity of outcomes observed when family firms implement these strategies. Notably, while non-financial goals often drive FFs due to their SEW (Abeysekera & Fernando, 2020). The relationship between SEW and ESG practices is complex and multi-faceted. SEW refers to the non-financial aspects of a business that family members value, including family control, identity, and the desire to pass a legacy to future generations. When family firms engage with ESG practices, these socioemotional values often influence their approach to sustainability—motivating decisions that may prioritise long-term viability over short-term financial gains (Gillan et al., 2021a).

Moreover, some literature challenges the conventional narrative that suggests a straightforward positive relationship between family involvement and business performance (Galvagno & Pisano, 2021; Garcia-Castro & Aguilera, 2014). An emerging strand of literature challenges this narrative by positing that the relationship between family control and business performance does not adhere to a linear relationship (Carney et al., 2015). Evidence further support this by identifying sustainability strategy as one of the most potent mediating factors that could enhance firm performance under the stewardship of family governance (Z. Chen & Xie, 2022).

The impact of family involvement on business outcomes also varies considerably across different contexts, influenced by factors such as shareholding degree, dataset specificity (Mazzi, 2011), the firm's policy environment (D. Xu et al., 2019), socioeconomic development level (Zhao et al., 2022), and the specific datasets employed (Gillan et al., 2021). In addition, geographical differences in research data

may also exacerbate this debate, differences in regions and political systems will further expand the heterogeneity of research (Gillan et al., 2010). For example, around three-quarters of family business research focuses on developed countries, particularly North America and Europe (Dinh & Calabrò, 2019; Massis et al., 2012),while relative researches significantly less on developing countries.

Addressing another crucial aspect, the ESG framework is often viewed as a tool to mitigate risks and enhance financing prospects. However, the financial implications of ESG investments are not always apparent in conventional financial statements, leading to potential conflicts within family firms that weigh immediate financial returns against long-term sustainability benefits (Feng et al., 2023). This scenario is particularly challenging for family businesses where investments in ESG might compromise the familial legacy if not managed carefully (Lamb et al., 2017) .

Moreover, the governance model in FFs often embodies a stewardship ethos among family members in managerial roles, in stark contrast to the rigorous oversight and explicit incentive structures typically applied to non-family managers (D. Xu et al., 2019). FFs operate under the presumption of an inherent alignment between their interests and those of the enterprise, particularly given their profound familial bonds (Gómez-Mejía et al., 2007). Nonetheless, this perspective is not universally shared by non-family shareholders and investors, who, without a transparent articulation of the firm's long-term vision, may prioritise immediate returns and overt financial metrics (Sonfield & Lussier, 2009), leading to reticence in committing to ESG investment and disclosures.

This discrepancy highlights the intricate balance family firms must manage between their SEW and their commitment to ESG practices. This raises several critical questions for further investigation: How does the interplay between SEW and ESG influence a family firm’s performance? Can the involvement of non-family stakeholders shift this balance, potentially enhancing or undermining the firm's ESG outcomes? Most importantly, does integrating ESG considerations aligned with the family's SEW translate into tangible financial benefits? Exploring these questions will provide deeper insights into how family firms can effectively navigate the complex dynamics of SEW and ESG, offering valuable contributions to both theoretical frameworks and practical strategies in family business management.

Given these observations, this study aims to address the following refined questions:

Questions A: Factors of Heterogeneity:

1.What factors contribute to the variation in family firms engage with ESG?

2. Can these insights inform future research directions and strategic planning?

Questions B: Preference and Regulation:

1.Do FFs display uniform preferences towards the E, S, and G dimensions of ESG.

2.Do non-family members influence the priorities of family members within these firms regarding ESG dimensions?

Questions C: Alignment with SEW:

1.To what extent does the engagement of FFs with ESG practices align with their values related to SEW?

2. In what ways can family firms' engagement with ESG potentially contribute to their financial performance, considering the indirect influence of SEW?

To more intuitively present the alignment of our research questions with the dissertation structure, the table below details each research question, its description and the corresponding chapters in which they are addressed. This format aims to clarify the focus and context of each question for readers and reviewers, ensuring clarity and organisation of the research objectives:

Research Questions Table:

Chapter	Research Questions	Description	Chapter Summary
Chapter 2	Questions A: Factors of Heterogeneity	1. What factors contribute to the variation in family firms' engagement with ESG？ 2. Can these insights inform future research directions and strategic planning?	This chapter presents a bibliometric analysis and comprehensive literature review on the interplay between ESG engagement and family businesses (FBs). It synthesizes key insights from mainstream databases to illuminate the emerging yet inconsistent landscape of ESG research within the context of FBs, proposing a theory-driven research agenda to bridge existing knowledge gaps and guide future inquiries.
Chapter 3	Questions B: Preference and Regulation	1. Do family firms display uniform preferences towards the E, S, and G dimensions of ESG? 2. Do non-family members influence the priorities of family members within these firms regarding ESG dimensions?	This chapter delves into the influence of family control on ESG dimensions and examines the role of institutional holdings in this dynamic. The investigation reveals that family control does not uniformly encourage ESG initiatives and that institutional investors may inhibit family firms' ESG strategies in less mature markets.
Chapter 4	Questions C: Alignment with SEW	1. To what extent does the engagement of family firms with ESG practices align with their values related to SEW? 2. In what ways can family firms' engagement with ESG potentially contribute to their financial performance, considering the indirect influence of SEW?	This chapter assesses the collective ESG preferences of family firms and their effect on financial performance. It posits that the SEW of family firms engenders a long-term outlook that naturally aligns with ESG initiatives. The findings underscore the positive mediating role of ESG in enhancing financial performance through family control, although this effect varies across different performance metrics.

1.3 The structure of the dissertation

This doctoral dissertation is structured into five sections, each contributing to a nuanced understanding of the interplay between FFs, ESG engagement, and their financial outcomes. Central to this investigation are the roles of family voting rights and shareholdings, alongside the influence of ESG performance metrics on the financial performance of Chinese-listed family businesses. Through this organisation, the dissertation systematically unravels the complexities inherent in assessing the impact of family ownership and governance on ESG strategies and their subsequent financial implications.

Chapter 1 sets the stage with a general introduction, outlining the research context and theoretical underpinnings and identifying research gaps and questions while providing a roadmap of the dissertation structure.

Chapter 2 presents a bibliometric analysis and comprehensive literature review on the interplay between ESG engagement and FBs. This review, synthesising key insights from mainstream databases, illuminates the emerging yet inconsistent landscape of ESG research within the context of FBs. It proposes a theory-driven research agenda to bridge existing knowledge gaps and guide future inquiries.

Chapter 3 delves into the influence of family control on ESG dimensions (E, S, G respectively) and examines the role of institutional holdings in this dynamic. This investigation reveals that the FF's control does not uniformly encourage ESG initiatives. Institutional investors may even inhibit family firms' ESG strategies in less mature markets. Additionally, the research highlights how family and institutional controls wield limited sway in strongly politicised environments, indicating the variable impact of political and market forces on ESG engagement.

Chapter 4 assesses the collective ESG preferences of FFs and their effect on financial performance. It posits that the SEW of FFs engenders a long-term outlook that naturally aligns with ESG initiatives. The findings underscore the positive mediating role of ESG in enhancing financial performance through family control, although this effect varies across different performance metrics.

Chapter 5, the conclusion, synthesises the thesis's key findings and theoretical contributions, acknowledging its limitations and outlining avenues for future research. This final section emphasises

the nuanced relationship between FF's SEW and ESG strategies, the contingent effects of external market and political environments, and the varying impact of ESG engagement on financial performance. It calls for a deeper exploration of these dynamics to enhance our understanding of how family firms can navigate sustainability and governance, contributing to academic scholarship and practical management strategies.

Chapter 2: Environmental, Social and Governance in Family Firms: A Bibliometric Review and Agenda for Future Research

2.1 Introduction

Human activity has intensified societal inequalities and environmental issues such as the greenhouse effect and extreme weather events. By way of response, the United Nations introduced the 2030 Sustainability Agenda, which features 17 Sustainable Development Goals (SDGs), highlighting the importance of a holistic approach to development that integrates ecological, social, and economic perspectives (Jamali et al., 2022). Research indicates enhanced corporate sustainability can boost performance (Adomako et al., 2019). Beyond governmental efforts, businesses face increasing peer and customer pressures to prioritise sustainability by incorporating social and ecological objectives into their operations (Cashore et al., 2021).

Private capital market entities, and particularly institutional investors, have recently focused on Environmental, Social and Governance (ESG) investments, recognizing their pivotal role in sustainable development (Gillan et al., 2021). ESG initiatives such as low-carbon innovations (Tie et al., 2020) have produced multiple joint endeavours from both the public and private sectors (Cashore et al., 2021), with the result that research is increasingly being focused on sustainability (Jamali et al., 2022). As a dominant form of business worldwide, e.g., 80% in Europe (Preslmayer et al., 2018) and 70% in China (Wu et al., 2023), family firms or businesses (hereafter FFs) are key to the ESG agenda (Samara et al., 2022).

The integration of ESG practices in FFs is influenced by distinct factors inherent to their operational and governance structures. Family businesses are characterised by a high degree of family involvement, which impacts strategic decisions and operational behaviors significantly (Carney et al., 2015; Kubíček & Machek, 2020). This involvement often extends to the community, where family firms are deeply embedded, influencing and being influenced by local social norms and values (Gómez-Mejía et al., 2007; He et al., 2022).

These firms face a complex balance between upholding family values and adhering to external ESG

standards, which can sometimes be at odds with each other. While they strive to maintain their reputation and meet the social expectations of their community, they must also navigate the financial and operational implications of implementing comprehensive ESG strategies (Breton-Miller & Miller, 2016; Sageder et al., 2018). This dynamic can lead to cautious decision-making in ESG investments, particularly when these involve high risks or significant changes to established practices (López-González et al., 2019).

The academic discourse around ESG practices in family firms is still developing. Despite the recognized need for sustainable strategies, the actual impact of ESG engagements on firm performance is not always straightforward or immediately apparent (Atan et al., 2016). This ambiguity can deter family firms from adopting more aggressive ESG strategies, as unsuccessful investments could potentially harm the family's socioemotional wealth and jeopardize the business's legacy (Alazzani et al., 2021).

Moreover, the research that does exist often focuses predominantly on developed countries, particularly North America and Europe, with limited insights into how family businesses in developing regions engage with ESG practices (Dinh & Calabrò, 2019; Massis et al., 2012). This geographic skew in the data further underscores the need for a comprehensive literature review that can provide a more global perspective on the issue, thus enriching the understanding of ESG practices in diverse economic and cultural contexts.CSR is a holistic concept encompassing an organisation's responsibility for how its decisions and activities impact the economy, society and the environment (Aguinis & Glavas, 2012; van Beurden & Gössling, 2008). It encompasses ethical behaviours, sustainable development, stakeholder expectations and international norms of behaviour (W. Ali et al., 2017; Kolk, 2016). ESG can be viewed as an extension of corporate CSR strategies and includes CSR engagement issues (Clément et al., 2023), by means of which a more centralised and quantitative assessment of the company's performance in terms of environmental protection, social responsibility and governance practices may be conducted. ESG's ability to quantify and measure specific risks and performance is intuitive and credible for investors and stakeholders (Pedersen et al., 2021). It has not "replaced" CSR but rather evolved from it, providing a more structured and quantifiable approach to understanding a company's impact and

practices. While CSR offers a broader view of a company's commitment to societal and environmental welfare, ESG scores have emerged as a more precise tool: advanced evaluation of a company's sustainability risks and opportunities.

For this study, a thorough search was performed to gather relevant academic articles on ESG aspects within FFs across four databases: Web of Science, Scopus, EBSCO and Google Scholar. This resulted in the identification of 34 key articles. An analytical framework was then developed to synthesize important insights and suggested future avenues of research. This article aims to answer the following research questions:

RQ1. What is the existing state of the literature on ESG with regard to FFs?

RQ2. What are the future lines of research on FFs and ESG?

Our work contributes to the field in several ways. Firstly, it represents a pioneering effort in charting the research landscape of ESG within FFs, focusing on the key dominant theories in the field by analysing the scope of research hotspots, popular journals and existing literature, and drawing a clear research map. Furthermore, we explore the causal factors and outcomes related to ESG orientations in FFs, revealing potential areas and future directions for further scholarly enquiry. Specific topics are highlighted, such as the size of the family business and its interaction with ESG, stakeholder influence, regional differences and guidance on ESG practices relative to financial and non-financial performance. Additionally, a unique aspect of our work is the emphasis on establishing the definition and scope of ESG. The current research scenario is characterised by differences in its scope, measurement and weight across contexts, and our study provides a clear understanding of corporate ESG practices and terminology while adding informed recommendations based on the literature and current policies.

This article is structured as follows: Section 2 describes our methodology and criteria for data selection. Section 3 offers an analysis of the study, drawing upon bibliometrics. Section 4 uncovers future research trajectories as identified in the literature, and Section 5 is the conclusion.

2.2 Data and methodology

2.2.1. Data selection

This review is entirely based on peer-reviewed articles written in English and published in scientific journals up to August 2023. Aligning with the methodology delineated by Spanuth & Urbano (2023), our focus was strictly on peer-reviewed articles, excluding grey literature, such as working papers and conference proceedings. It included articles, review articles, and those available through open and early access from any journal. Due to the emerging status of the ESG field, we decided not to limit the reference journals (in terms of quality and type). For our keyword search, we drew inspiration from the methodologies previously outlined in Brunelli et al. (2023) and Miroshnychenko et al. (2022).

We designed our search process so as to ensure that all relevant studies could be identified using explicit and reproducible selection criteria. Initially, we searched the SCOPUS, Business Source Elite (EBSCO), ISI Web of Knowledge and Google Scholar databases, which are renowned for their comprehensive coverage of academic literature in business. We use the following search terms from article keywords, abstract and title: “family business” OR “family control” OR “family-controlled firm” OR “family-controlled business” OR “family firm” OR “family firm behaviour” OR “family ownership” OR “family management” OR “family influence” OR “family involvement” OR “family business group” OR “family relationship” AND “ Environmental, social and governance” OR “ESG” OR “Environmental social and governance index” OR “Environmental social and governance ratings” OR “Environmental social and governance score” OR “ESG performance” OR “ESG index” OR “ESG ratings” OR “ESG score” OR “ESG engagement.”

Our search strategy yielded 94 articles, distributed as follows: 29 from Web of Science, 28 from Scopus, 20 from EBSCO and 17 from Google Scholar. We excluded four articles where the title and/or abstract were in English, but the main content was in another language.

Upon consolidating the results from all databases and removing 48 duplicate entries, we were left with a subset of articles. To ensure the precision of our review, we applied a rigorous evaluative criterion for article selection. Specifically, we retained articles that: 1) Investigated the relationship between FFs and

ESG; 2) Explored the linkage between family control or holdings and ESG; or 3) Analysed the direct or indirect influence of family ownership on ESG participation in non-FFs. These criteria excluded 12 articles that did not offer pertinent insights. Upon thoroughly examining the remaining literature and eliminating content not central to our topic, our final dataset comprised 34 unique articles, as illustrated in Figure 1.

2.2.2 Methodology

In order to evaluate the literature on the intersection of FFs and ESG practices. We employed software tools, including VOS Viewer and Tableau, to facilitate bibliometric tasks, consolidate statistical findings and create auxiliary visual representations, respectively. VOS Viewer was instrumental in visualizing co-citation networks, while Tableau aided in creating interactive dashboards in order to present our findings.

Bibliometric Analysis

This method maps the main themes present in the research. We analysed publication years and key journals in order to track the evolution of this field, and identified influential papers based on citation frequency. "Geographical Distribution" examines the origins of research, highlighting regions with greater or lower activity. "Theoretical Statistics" explores prevailing theories and the current research landscape. Finally, “Keyword and Thematic Cartography" delves into primary themes and subjects, elucidating core ideas.

2.3 Data analysis

The subsequent sections present research on FFs and ESG, identifying both well-explored topics and areas that have seen limited academic contributions. In this part, we analyse 34 selected articles, employing Tableau in order to generate statistical charts and geographical distributions and using VOS view for keyword visualization. Furthermore, considering the emerging nature of this research area, we attempted to visualize authorship patterns and associated institutions. Nevertheless, this endeavour cannot provide substantial insights, so relevant visual representations and discussions are excluded.

2.3.1 Publication Timeline

In order to examine the distribution of publications related to FFs and ESG over time, we organized them by year and presented the data using a bar chart. The subsequent findings are outlined below (Figure 2).

The 2015, the United Nations SDGs significantly elevated global awareness regarding sustainability (Mio et al., 2020), and the release of two seminal papers underscored this shift (Singal & Gerde, 2015). They posited that adopting ESG could weaken the inherent family ties that foster trust, coordination and knowledge-sharing in FFs. Simultaneously, Rees & Rodionova (2015) highlighted the potential negative impact of family ownership on ESG, influenced by regional, national and ownership factors.

The absence of significant publications in 2016 and 2017 might indicate a pause in scholarly production. However, the volume of research grew rapidly in 2018 and after 2019 the emergence of the COVID-19 pandemic further accelerated this academic interest, while this sudden risk to public health made many companies and FFs consider the importance of sustainability (Xu et al., 2023).

The surge in studies after 2019 can be attributed to various factors. On the one hand, the pandemic underscored the pivotal role of ESG components in orchestrating risk management strategies and augmenting the longitudinal financial resilience of enterprises (Xu et al., 2023). Studies corroborate that high ESG portfolios generally surpass their lower ESG counterparts in performance and recovery post-downturns (Giakoumelou et al., 2022). Furthermore, Banerjee (2021) emphasized that FFs should urgently reduce their focus on comprehensive ESG strategies and intensify their investments in technological advancements despite their financial robustness and reputational advantages. Such revelations justify the consolidation of ESG and FFs as integral focal points of academic exploration, especially considering that ESG strategies and directions can help FFs recover in the face of sudden economic, societal and other crises.

2.3.2 Predominant Contributing Journals

In our bibliometric study on ESG and FFs, we believe it is imperative to consider the variety of journal

disciplines and influence of specific journals, as shown below in Figure 3.

The journals span a range of disciplines, reflecting the multifaceted nature of ESG considerations in FFs. For instance, journals such as the Oxford Review of Economic Policy delve into economics, while Management Science focuses on management studies. The presence of journals like the Journal of Corporate Finance suggests that financial perspectives are also being considered. This wide-ranging scholarly contribution speaks to the growing relevance of ESG considerations in FFs. It suggests a movement towards understanding how ESG factors shape the operational strategies of FFs. The interdisciplinary nature of the contributing journals underscores the complexity of ESG considerations, requiring insights from economics, finance, management and even sociocultural perspectives.

The journal Sustainability stands out with its six articles, suggesting a pivotal role in bridging various academic disciplines. Meanwhile, the two articles in Business Strategy and the Environment and Corporate Social Responsibility and Environmental Management indicate a trend. There is a growing interest in understanding how businesses, especially FFs, incorporate environmental and social responsibilities. Interestingly, these two publications are sibling journals. Finance Research Letters, known for its concise and innovative contributions, showcases the emerging nature of ESG's role in FFs. The fact that the relationship between FFs and ESG remains in its early stages is evident from this journal's diverse opinions and preliminary results.

It is worth noting that Family Business Review is the sole representative of the main journals focused on family research; others, such as Entrepreneurship Theory and Practice, Journal of Family Business Strategy and Journal of Family Business Management, have yet to publish pertinent articles. The limited representation from core family business journals suggests that the discourse on ESG within FFs might be viewed more as a business strategy or sustainability issue rather than as a family-centric concern.

2.3.3 Citation Impact Assessment

In academic research, citation analysis constitutes a pivotal tool for measuring the influence and impact of publication contributions. By examining how often peers cite a particular study, we can discern its

significance and how it has shaped subsequent research. Within the context of ESG considerations in FFs, understanding citation patterns can offer insights into the foundational works that have steered the discourse, prevailing narratives and emerging trends. The five most cited academic papers are in Figure 4.

Here, we present the citation count for literature up until August 31, 2023, utilizing CrossRef statistics. The article "Firms and Social Responsibility: A Review of ESG and CSR Research in Corporate Finance" (Gillan et al., 2021) has garnered the most citations. This study did not rigorously maintain a clear distinction between ESG and CSR. It highlighted that the correlation between family holdings and ESG performance has not been consistently positive in prior investigations, but rather relationships will take different forms in different economies or geo-economies; "Corporate Governance and Environmental Social Governance Disclosure: A meta-analytical review (Lagasio & Cucari, 2019)" is ranked second. Due to the heterogeneity of family ownership, this article underscored the difficulty in drawing definitive conclusions regarding the association between the extent of family-held shares in a company and the company's voluntary disclosure.

The article "Does ESG Performance Enhance Firm Value? Evidence from Korea" by Yoon et al. (2018) empirically explored the positive correlation between ESG and family business performance within Korean chaebol FFs. However, it also acknowledged certain negative repercussions in environmentally sensitive sectors. The fourth paper (Rees & Rodionova, 2015) established that family ownership is generally negatively correlated with ESG performance, especially in liberal market economies. The results diverge and weaken in coordinated market economies, with Japan showing distinctive patterns compared to other countries in the study. The fifth article (Aureli et al., 2020) examined an FF that has never disclosed ESG information, highlighting the company's tactical responses to the government's newly introduced sustainability regulations. These responses evolved from initial concerns related to legal, social and cultural conditions to considerations of efficiency and economic factors.

2.3.4 Spatial Distribution of Research Contributions

In our methodology, we identified the countries from which the research data in each article were

derived rather than focusing on the locations of the publishing institutions (Figure 5). This was done in order to better understand the existing research relationships between ESG and FFs from a regional perspective. When selecting data, we assigned the data to the country with the highest GDP (gross domestic product); selecting countries based on GDP or sample size ensured that the analysis captures the most influential regions in the study, providing a representative overview of the research landscape. For example, we selected Saudi Arabia as the representative of the six Gulf States (Alazzani et al., 2021). When analysing regional studies spanning multiple countries and regions, we used the sample with the largest proportion as a representative country (e.g. (Nekhili et al., 2021).

The results show that the United States is a forerunner in family business literature, contributing to 30% of the scientific output, followed by Italy, Spain and the United Kingdom, each accounting for over 10% of all publications. China's contribution to this body of literature is also noteworthy (Araya-Castillo et al., 2022). Consequently, research predominantly focuses on the United States, China and several European Union countries, with a significant attention unsurprisingly paid to Italy, France and Spain. Interestingly, there is a growing body of research focusing on Arabian countries. In the Arab Middle East, there is a prevalence of patriarchal and collectivist cultures, which prioritize family harmony (Samara, 2021). The integration of ESG could be one of the drivers for developing regional FFs.

The geographical dispersion of the research underscores the significant role of government in ESG factors. Corporate sustainability (the darkest colour on the map) is very obviously impacted by regulations. Specifically, the EU has established rigorous sustainability guidelines for businesses and institutions through its environmental reporting mandates (Hahn et al., 2023). In the U.S., the Securities and Exchange Commission's climate disclosure requirements and initiatives like the Green New Deal bolster corporate enthusiasm towards environmental conservation (Knudsen & Moon, 2022). Meanwhile, China has proactively implemented sustainability strategies that transform environmental investments into economic gains via banking loans and tax incentives (Quan et al., 2018).

There is a notable dearth of research focusing on ESG and FFs in regions such as Latin America, Africa and Eastern Europe. Several plausible explanations can be advanced for this disparity observed in

research contribution. One might be the limited development of FFs in these regions due to their differing economic structures and business cultures (Esparza Aguilar, 2018). Additionally, the region's predominant focus on core economic development could outweigh the urgency of integrating sustainability practices, reflecting a potentially poor awareness and prioritization of sustainability (Sarkodie, 2022).

2.3.5 Theoretical Statistics and Framework Analysis

The table comprehensively highlights the diverse perspectives adopted by the reviewed articles in the context of theoretical frameworks deployed for understanding the intersection of ESG and FFs. It is crucial to note that many articles incorporate various theories in order to underpin their research – each of which has been meticulously considered and accounted for. The concurrent application of multiple theories in some articles reflects the multifaceted nature of ESG considerations in FFs, where governance structures, family dynamics and sustainability imperatives intersect. The theoretical statistical results are as follows in Figure 6.

The results show that agency theory (14) emerges as the leading theoretical lens, employed In fourteen of the articles, followed by stakeholder theory (13) and social-emotional wealth theory (5). In addition, seven of the documents use no specific theoretical support, reflecting that in some research areas, ESG and FF research is still in the exploratory stage. The dominance of agency theory, which often explores the relationships between owners, managers and stakeholders, underscores the unique governance challenges and opportunities that FFs present in ESG.

Agency theory

The discussions are often rooted in agency theory. As conceptualized by Jensen & Meckling, 1979, agency theory delineates the principal-agent relationship. It underscores the distinction between ownership and control, where the company owner (the principal) delegates managerial duties to agents acting in the principal's best interests. However, inherent in this relationship are potential conflicts of interest, as agents may prioritize their own objectives over those of the principals.

In FFs, where families typically hold significant equity, the prevalent agency conflicts are markedly diminished compared to their non-family counterparts, given the alignment of ownership and control (Davila et al., 2023). Nevertheless, the consolidation of power by substantial owners might lead to prioritizing their own interests, such as sustaining stable cash flows for maintaining affluent lifestyles and ensuring substantial dividend payouts (Kappes & Schmid, 2013). Hence, families with substantial, enduring stakes may refrain from extensive ESG investments that seemingly do not yield personal gains. Empirical studies indicate a negative correlation between social responsibility participation and corporate financial performance within FFs (Tenuta & Cambrea, 2022). Though the agency conflicts between controlling shareholders and managers are nearly non-existent in FFs, the conflicts between majority and minority shareholders can be particularly pronounced (Gjergji et al., 2021). From this vantage point, family shareholders might leverage social initiatives to actualize family objectives that amplify the non-financial goals of the family shareholders, potentially to the detriment of corporate performance and, consequently, the minority shareholders (Meier & Schier, 2016).

While large corporations might enjoy benefits that outweigh the costs of ESG disclosures, SMEs may, conversely, find themselves grappling with disproportionate costs and limited benefits due to their size and scale (Hoogendoorn et al., 2015). While the implications of voluntary ESG disclosures have been examined in the context of large family corporations, the unique characteristics of family SMEs can potentially modify the perceived costs and benefits, as postulated by both agency and stakeholder theory (Ahmad et al., 2020; Nave et al., 2022). Gjergji et al. (2021) posited that participation, control and involvement in small and medium-sized FFs can mitigate the costs associated with ESG participation while enhancing returns. Elevated levels of environmental disclosure in FFs are posited to decrease investment financing costs (Sharma & Sharma, 2011). Therefore, it is crucial to consider the variability in agency conflicts and related implications across FFs of different scales, highlighting the nuanced intersection of ESG disclosures, family ownership structures, and their consequent impact on various stakeholders within this academic discourse.

Stakeholder theory

Stakeholder theory holds that companies should pay attention to all stakeholders with direct or indirect relationships with them, not just shareholders (Freeman, 2004). Stakeholders include employees, customers, suppliers, communities, governments, etc. Disclosing corporate social responsibility activities can help investors and stakeholders understand the authenticity of a company's activities and evaluate its social practices accordingly (Sun et al., 2023). Companies that disclose information about their CSR activities attempt to seek legitimacy by demonstrating to external stakeholders that they meet ethical standards (Gillan et al., 2021), respect the social contract that defines legitimacy, and minimize earnings management practices. In other words, stakeholder theory supports the possibility of corporate participation in ESG.

FFs often foster enduring relationships with their stakeholders, emphasizing the cultivation of stakeholder interests. They typically value the accrual of social and reputational capital, showing a deeper commitment to communities compared to non-FFs (M. Sharma et al., 2020). In essence, the stakeholder engagement of FFs aligns naturally with the pursuit of ESG objectives, creating a synergy between stakeholder interests and SDGs (Wasiuzzaman & Subramaniam, 2023). Engaging with ESG is crucial for upholding family business values and legacies. Given that family members often play dual roles as primary shareholders and managerial leaders, a balanced approach to ESG is essential.

Family beliefs and stakeholders achieve harmony. This harmony facilitates the enactment of robust ESG practices, enabling stakeholder desires and the need to align with the values of both the family and organization. This strengthens their dedication to long-term sustainability and societal responsibility (Tenuta & Cambrea, 2022). Stakeholders' expectations and the pursuit of ESG goals mutually reinforce each other. By embracing and melding stakeholders' varied interests and expectations, FFs can formulate and apply ESG strategies that resonate with their distinct organizational culture and values, thus elevating their commitment to sustainable and ethical practices (Bamahros et al., 2022).

Social-emotional wealth

FFs are characterized by centralized ownership and control, usually accompanied by prevalent nepotism (Chen & Lu, 2009). This strong relationship dominates the company, and family alliances exert strict

control over their companies through ownership and management, affecting organizational culture (Rau et al., 2005). Some of the non-financial goals of the family business take priority in business activities (Zellweger et al., 2013). Furthermore, non-economic goals, such as identity, the ability to exercise family influence, and the continuation of family dynasties, referred to as Socio-emotional wealth (SEW) in this literature, can influence collective behaviour (Gómez-Mejía et al., 2007; Miller & Le Breton–Miller, 2014).

While studies show that ESG participation enhances a company's reputation and reduces systemic risk in developed countries (Aouadi & Marsat, 2018), more motivation is needed in developing economies (Lamb & Butler, 2018). There is some evidence that family control negatively impacts ESG engagement (Rees & Rodionova, 2015). Mejía et al. (2011) pointed out that FFs are particularly averse to any potential damage to their SEW. In the case of failure, both their SEW and financial performance are at risk, so FFs reduce the related investment in order to preserve SEW (Kellermanns et al., 2016). El Ghoul et al. (2016) found that FFs are less likely to invest in social responsibility in countries with low press freedom, high political favouritism and weak investor protection. In fact, although FFs may be motivated to enhance their reputation by investing in social responsibility activities, a fragile institutional environment can reduce incentive.

2.3.6 Keyword and Thematic Cartography

A myriad of research possibilities exists in the intersection of FFs and ESG. Given the distinct governance structures and values that often characterize FFs, it is pertinent to explore how these align or conflict with ESG principles. The methodology is rooted in an extensive review of titles and abstracts, utilizing binary counting (the occurrences attribute indicates the number of documents in which a term occurs at least once) and focusing on keywords with at least three occurrences, discarding any irrelevant variables. This methodology has resulted in a comprehensive cluster map divided into four clusters, each pointing towards various research aspects within FFs and ESG. Focusing on frequently occurring keywords ensures that the analysis captures the core themes and concerns within the literature, providing a representative snapshot of the research landscape. Show as in Figure 7.

Cluster 1: Family vs non-family value and ESG activities (red)

Keywords explanation: With keywords like ‘activity’, ‘family’, ‘family business’, ‘non-family firm’, ‘family control’ and ‘ESG activity’, this cluster likely represents research around the influence and engagement of family-controlled businesses in ESG activities.

The keywords have been meticulously chosen in order to discern the extent to which familial control and management influence, shape or drive ESG-related initiatives within corporate frameworks. Moreover, it is pivotal to consider that the valuations and implications of ESG activities may differ markedly between family and non-family business entities. This intricate interplay between family-driven and non-family-centric control offers a paradigmatic lens through which one can examine alignment with or potential divergence from established ESG tenets (Q. Ali et al., 2022; Davila et al., 2023).

Empirical evidence generally posits a positive association between the disclosure of ESG activities and overall firm valuation (Alareeni & Hamdan, 2020), underscoring the premise that heightened transparency and accountability in ESG activities can increase company value. Intriguingly, this positive association is moderated in family-owned enterprises (Thahira & Mita, 2021), suggesting the presence of distinctive concerns or strategic orientations within these entities when they engage in ESG initiatives.

Future scholarly enquiries should investigate the nuanced role that ESG activities assume specifically within family enterprises. Furthermore, a systematic comparative analysis delineating ESG reporting practices between family-controlled and non-family-controlled entities could yield profound academic and practical insights.

Cluster 2: ESG Disclosure and Impact (Blue)

Keywords: ‘disclosure’, ‘environmental disclosure’, ‘social performance’ and ‘corporate governance’ intrinsically align with the paradigms of transparency, environmental stewardship and socio-corporate performance within the ESG framework. Their confluence underscores the potential interplay between

levels of ESG disclosure and the resultant environmental, social and governance performance, especially in the context of FF.

FFs often present heterogeneous implications for environmental, social and governance performance. This variance leads to multifaceted and sometimes contradictory conclusions surrounding ESG engagement. For instance, the meta-analysis conducted by Miroshnychenko et al. (2022) suggested that family management negatively influences environmental performance. Meanwhile, Zeng's empirical study posited that family-owned listed firms are highly committed to corporate social responsibility. Nevertheless, when family members occupy pivotal roles such as the CEO, president, or board chair, there appears to be a decreased inclination toward corporate social responsibility (Koji et al., 2020). In corporate governance, familial involvement often bolsters firm resilience, with family-centric functions and competitive advantages correlating positively with overall firm performance (Barbera et al., 2022). Notably, aspects like stewardship - marked by next-generation involvement - and family guardianship - evidenced by a family council - show significant positive associations with explorative initiatives (Scholes et al., 2021).

Conversely, ESG rating agencies typically use a linear weighted assessment method for SRI portfolio optimization, prioritizing simplicity and clarity. However, this approach demands rigorous independence among evaluation indicators (Chen et al., 2021). It is essential to note the variability in ESG evaluation standards. Disparities in institutional methodologies, disclosure methods and scoring can influence the ESG performance of FFs. Therefore, an in-depth analysis of the environmental implications of varying ESG disclosures, the relationship between ESG reporting transparency and social outcomes, and the role of disclosure in environmental mitigation is crucial for ESG and family business research. Meanwhile, due to differences in geographical or legal nature, the ESG disclosure and impact of the same company will also change accordingly. FFs' compliance with the ESG's non-financial reporting directives can be crucial. However, given the different regulatory environments, the same company may adopt different disclosure strategies if operating in Asia.

Cluster 3: Family Relational and ESG Reporting (Purple)

This cluster represents words like ‘reporting’, ‘relationship’, ‘ESG reporting’, ‘ESG score’ and ‘ESG disclosing’. It hints at the potential for exploring how relationships within FFs influence ESG engagement and how this is valued in the marketplace.

For instance, in regions like the Gulf Cooperation Countries, there is a notable trend where family board membership correlates with a reduced volume of ESG disclosures (Arayssi & Jizi, 2023). While typically, factors such as board independence and gender diversity bolster ESG disclosures by mitigating agency costs, family-led firms demonstrate positive outcomes even without extensive ESG disclosures (Alazzani et al., 2021).

Diving deeper into the dynamics of family business internal relations, the efficiency of female directors appears to be diminished in family enterprises. This trend becomes even more pronounced when family members occupy pivotal leadership roles like CEO or Chairman. In such settings, the influence of female directors on the firm’s ESG strategy becomes virtually negligible, constraining their potential impact on ESG initiatives (Wasiuzzaman & Subramaniam, 2023).

Moreover, FFs’ strategies and visions also vary based on succession and iteration, dynamics that can lead to conflict and consensus. The founders practise sustainable development to improve the family’s long-term vision. However, the next generation of leaders may change their interpretation and perception of family values, thereby changing ESG-related practice strategies and disclosures.

Cluster 4: Stakeholders-Governance Dynamics in FFs (Green)

This cluster predominantly focuses on keywords such as ‘board’, ‘director’, ‘policy maker’ and ‘investor.’ These terms suggest a significant enquiry into the governance structures and stakeholder dynamics within FFs, with a particular inclination towards ESG considerations.

Stakeholder involvement in FFs presents a unique dynamic. On the one hand, while investors frequently express concern for accountability and push for regulatory reform, other stakeholders might have differing priorities. Many companies may perceive ESG disclosure as superfluous, thinking it elevates governance-related expenses and introduces complexities in strategy execution.

However, FFs have distinctive characteristics that make their stake in ESG disclosure more nuanced (Aureli et al., 2020). These businesses are often deeply entrenched in their communities, valuing their reputation and the trust they have garnered. They typically prioritize the welfare of their employees and foster enduring, symbiotic relationships with partners and suppliers (Farrington et al., 2010). Such long-standing affiliations often transcend transactional ties and may evolve into affective bonds (Gómez-Mejía et al., 2007; He et al., 2022). Consequently, FFs might engage in ESG activities not merely as an exercise in compliance but as an investment in sustaining these intangible assets and furthering their legacy.

In addition, governmental policies significantly influence family business perspectives on ESG. For instance, research indicates that some Italian FFs only began ESG disclosures after EU mandates, previously seeing them as mere administrative duties (Aureli et al., 2020). In contrast, Chinese state-owned enterprises adhere to ESG due to political pressures and governmental involvement despite the potential devaluation of corporate financial performance from environmental performance and social behaviours (Chang et al., 2015).

Future research could delve into the impact of directorial roles in ESG policy-making and the pressures exerted by stakeholders - including investors, governments and communities - on FFs, which might drive shifts in the nexus between FF and ESG outcomes.

2.4. Discussion

Having investigated the intricate landscape of ESG considerations within family firms, we shall now reflect on our findings, draw meaningful conclusions, and identify potential avenues for future research. This section aims to bridge the empirical insights from our bibliometric analysis with the broader theoretical frameworks underpinning the intersection of family firms and ESG. By juxtaposing our findings with established theories, we seek to offer a comprehensive understanding of the current state of research and chart a course for future scholarly enquiry.

ESG

From our prior analyses and results, it is evident that while ESG measurement techniques differ, a

significant number rely on third-party standards defined by entities like Bloomberg and Reuters (Alazzani et al., 2021; Borralho et al., 2022; Chakraborty et al., 2018). In contrast, some research takes a more hands-on approach, with the researcher directly examining corporate social responsibility reports and other pertinent documents in order to tailor-make ESG measurement criteria (Hsu & Chen, 2023). However, a consistent observation is the varying interpretations of ESG metrics. This variation often leads to disparate external performance of FFs, even when assessing the same entity.

Scholarly investigations underscore a Knightian perspective on ESG ratings and scores (Dumrose et al., 2022). The prevailing ambiguity in ESG can be traced to distinct divergences: scope divergence, where ratings are formulated based on varying sets of attributes; measurement divergence, occurring when rating agencies use different indicators to measure an identical attribute; and weight divergence, emerging when rating agencies assign different levels of importance to the same attributes (Berg et al., 2022).

To establish a clear understanding of ESG practices and terminologies for corporations, various studies and policies have provided insightful recommendations (Billio et al., 2021; Drempetic et al., 2020; Louche et al., 2023). In this article, we combined previous viewpoints, observed and summarized the mainstream definition and scope of ESG (for example, European Union standards, Chinese standards and previous research standards, amongst others), and proposed the following aspects and dimensions of ESG participation that will involve FFs:

The Environmental dimension emphasizes the importance of biodiversity preservation, reducing risks to human health, slowing climate change (Stanny & Ely, 2008), and facilitating the shift to a circular economy (Alkaraan et al., 2022). This is underscored by focusing on key areas such as climate change, deforestation, pollution (both air and water), land development and biodiversity loss. Corporations must gauge their performance by considering metrics related to energy efficiency, greenhouse gas emissions, waste management, water conservation and effective resource management.

The Social dimension, on the other hand, highlights policies related to gender, human rights protection, labour standards, workplace safety, gender equality and equitable income distribution - each playing a

significant role in influencing the well-being of employees and the larger community (Amini et al., 2023; Wasiuzzaman & Subramaniam, 2023). Businesses have an obligation to improve productivity and profitability in order to meet the needs of society and consumers, and have a great ethical responsibility (Grimstad et al., 2020)

Lastly, the Governance dimension centres around robust corporate practices (Ben-Amar et al., 2021), including board independence, safeguarding shareholder rights, setting fair executive compensation, implementing anti-corruption measures, preventing tax evasion, ensuring equal pay (as emphasized in the EU Pay Transparency Directive), curbing anti-competitive behaviours and a steadfast commitment to upholding the law (Bodolica et al., 2020).

2.4.1 FF and ESG from a theoretical perspective

The interplay between family firms and ESG considerations is not merely a matter of empirical observation but is deeply rooted in established theoretical frameworks. These theories offer lenses through which we can understand, interpret and predict the behaviours of family firms in the context of ESG. By examining the alignment (or misalignment) between our findings and these theories, we can discern patterns, anomalies, and potential areas for exploration. In this section, we delve into three prominent theoretical perspectives - agency theory, stakeholder theory, and social-emotional wealth - in order to elucidate their implications for family firms' engagement with ESG.

2.4.2 Future Research Questions and Agenda

Our review of the existing literature reveals divergent research paths and disparities in the application of ESG within FFs. We have delineated four principal directions within our conceptual framework: scale and ESG in family enterprises, stakeholder impact on ESG in family firms, regional impact on family firms and ESG, ESG practices and family business performance. Within each, we spotlight gaps in the prevailing research and propose exemplary research questions for future exploration. This consolidated view lays the groundwork for an evolved understanding and conceptualization of the interplay between ESG and FFs, opening up avenues for expanded enquiry into family business practices. The main directions framework results are shown in the following table 1.

2.4.2.1 Scale and ESG in family firms

Compared to large FFs, there is a noticeable research gap concerning the environmental and social practices of family-owned small and medium-sized enterprises (SMEs). Most are SMEs led by a single-family SME owner-manager in a family network. The personal style of family SME managers has a very obvious impact on business characteristics (Roffia et al., 2021). Historically, environmental disclosures by SMEs have been associated with rising capital costs and limited benefits (Querbach et al., 2021). However, this dynamic shifts in the context of family SMEs; the strategic utilization of intangible assets by these FFs in order to secure competitive advantages can alter the cost-benefit dynamics of disclosures, allowing them to derive similar advantages from environmental reporting to their larger counterparts (Gjergji et al., 2021).

Family SMEs can exhibit different styles in orientation toward non-economic goals, informal governance mechanisms, family identity, and emotional dynamics, with different impacts on their strategies, outcomes, and value creation (Valenza et al., 2021). ESG disclosures demand specialized expertise many SMEs may not possess (Esposito De Falco et al., 2021). Given their resource constraints relative to larger corporations, SMEs face challenges in adopting socially responsible practices. Specializing in niche markets, they risk divulging proprietary information which competitors could exploit. The inherent traits of SMEs could skew the cost-benefit dynamics of voluntary non-financial reporting, potentially escalating financial demands for their stakeholders (Graafland, 2018).

2.4.2.2 Stakeholder impact on ESG in family firms

FFs exhibit a unique interplay with stakeholders regarding ESG disclosure, rooted in their intrinsic characteristics and external pressures. While investors advocate greater transparency and governance reforms, FFs might view ESG disclosure as introducing operational complications and additional costs. However, given FFs' deep ties to their communities and an emphasis on reputational capital, their approach to ESG is often multifaceted. Investor employees and non-family shareholders could influence it.

On the one hand, a company's responsible practice of corporate ESG will bring returns. Stakeholder

utility plays an important role in its realization because investors and the local community will trust the company's performance more, thereby improving financial performance (Zheng et al., 2023). However, under external pressure, there is a tendency for management and company employees to "greenwash" when ESG scores are low. (Although greenwashing has no significant impact on corporate financial performance). Therefore, as a non-value-added activity, stakeholders will promote false ESG participation activities out of personal interests or motives (Lee & Raschke, 2023).

Although management and organizational research have acknowledged public-private interactions in sustainability (Cashore et al., 2021; Knudsen & Moon, 2022), the impact of the division of labour and governance interactions between public and private actors on firms' engagement in social practices is less evident. According to some experts, major stakeholders have great power to promote or hinder corporate social practices as a result of weak institutional mechanisms, and the governance structure of FFs further exacerbates this (Singh & Mittal, 2019). In light of this, there is a need to better understand the motivations and explanations for different forms of stakeholder interaction with firms. These include governments, communities and non-family members working together to develop standards and rules, and multi-stakeholder initiatives on different sustainability challenges.

4.4.2.3 Regional impact on family firms and ESG

Based on their regional circumstances, family firms exhibit divergent attitudes and preferences towards ESG. In the United States, family-owned firms appear to shoulder a greater responsibility towards shareholders in environmental investment decisions than their non-family counterparts (Abeysekera & Fernando, 2020). Government environmental subsidy policies can provide necessary and effective support for the development of enterprises, positively impacting the company's financial performance (Clément et al., 2023). Venturelli et al. (2018) pointed out that after the specific requirements of the EU directive, the quality of listed companies' disclosure and participation in corporate social responsibility has improved.

In contrast, an analysis of publicly traded companies across nine East Asian economies paints a different picture. Family-controlled entities in these regions tend to demonstrate subpar ESG

performance. This observation aligns with the expropriation hypothesis of family control, which underscores potential conflicts between the interests of family owners and minority stakeholders (El Ghoul et al., 2016). Further, these family-owned firms with diminished ESG outcomes tend to grapple with heightened agency dilemmas and are predominantly located in nations characterized by institutional fragility. In India, weak institutional frameworks mean that not all stakeholders have equal sway over family firms' social responsibility and corporate governance. This imbalance often makes FFs reluctant to engage in social practices that do not offer clear returns (Singh & Mittal, 2019).

However, changes are observable in certain regions. For instance, in the six Gulf nations, as corporate governance mechanisms improve, royal FFs with greater profitability are increasingly able to allocate portions of their profits towards social and environmental initiatives (Arayssi et al., 2019); Chinese businesses and investors are moving from traditional industries to sustainable investments in order to meet carbon goals (Li et al., 2023), Successors with overseas experience notably boost family firms' environmental investments (Yang et al., 2022). These phenomena suggest that findings within the same region can vary, and future ESG and FF studies might differ from past ones.

2.4.2.4 ESG practices and family business performance

Existing research does not show which of the two wealth categories, financial wealth and social-emotional wealth, is more important in family business decision-making (Yu et al., 2015). For FFs, ESG initiatives can bolster SEW and non-financial gains such as augmented intangible reputational capital, a commendation from the community, improved employee happiness (Gazzola & Mella, 2017) and deepened emotional affinities (Kubíček & Machek, 2020). These dimensions, albeit intangible, play a pivotal role in shaping the trajectory and sustainability of family firms in the contemporary business landscape.

Regardless of financial considerations, FFs are more likely to perpetuate the owner's direct or indirect control and influence over the company's affairs (Zellweger et al., 2012). These findings mean that family control can be exercised directly in order to change the governance and structure of the company, such as direct appointment of the board of directors. (Mustakallio et al., 2002). Also, SEW is a

prominent feature of FFs from other organizational forms (Gomez-Mejia et al., 2010). When SEW is threatened, families are willing to choose non-economic goal strategies in order to protect it (Berrone et al., 2012), such as participating in social responsibility practice (Venturelli et al., 2021) and ESG engagement (Rees & Rodionova, 2015).

On the other hand, the relationship between ESG and corporate performance is intricate and multi-faceted. Extant literature suggests a positive correlation between ESG activities and enhanced financial outcomes (Alareeni & Hamdan, 2020; Gillan et al., 2010). Although some studies show family ownership reinforcing the correlation between CSR and financial performance (Yeon et al., 2021), this nexus may not hold uniformly for all FFs (Gillan et al., 2021). Firms can cultivate an evolving positive reputation through consistent investments in social responsibility. Heightened interest of family owners in responsible social activities can harmonize the objectives of both managers and owners, subsequently enhancing financial outcomes (Kaimal & Uzma, 2023). Notably, firms exhibiting financial underperformance often enhance their ESG initiatives, particularly those with subpar ESG records, as a strategic move in order to preserve future organizational legitimacy (Dasgupta, 2022). FFs can also be duplicitous participants in ESG for false prosperity.

2.5 Conclusions

The primary objective of this article was to explore the intricate interplay between FFs, their engagement in ESG initiatives, and the resulting impact on family business performance. Through a comprehensive evaluation of 34 research papers employing bibliometric analyses, we sought to understand the motivations, methodologies and potential conflicts arising from ESG participation by FFs. Moreover, we proposed three main theoretical research topics and identified four directions for future research.

Our findings emphasize the importance of understanding the theoretical underpinnings that guide FFs in their ESG endeavours. Agency theory, stakeholder theory and the socio-emotional wealth perspective offer distinct lenses through which to view the ESG decisions of FFs. Each theory provides insights into the drivers and deterrents behind family business engagement in ESG, revealing a complex landscape of

motivations and challenges. However, our study has also illuminated the need for a more integrated theoretical approach. Rather than viewing these theories in isolation, recognizing their potential intersections and overlaps can offer a richer understanding of the ESG decision-making process in FFs.

Our study has certain limitations. The prevalent use of simplistic linear ESG ratings and the need for a standardized approach across different entities poses challenges. We advocate the use of a more unified standard for ESG in the context of FFs, especially considering the diverse environments in which they operate. Future research might also benefit from exploring unconventional sources, such as reports from international organizations, in order to gain insights into the sustainability strategies employed by family-owned enterprises.

In conclusion, the relationship between FFs and ESG is a burgeoning area of academic enquiry. It is hoped that our study provides a foundational understanding of this domain by addressing the research questions posed and integrating diverse theoretical perspectives. We have aimed to equip practitioners and researchers alike with the knowledge to craft effective sustainability strategies, driving a more significant positive societal impact and furthering the pursuit of sustainable development goals.

Chapter 3: Institutional Investors' Constraints on Environmental, social, and governance in Family Firms

3.1 Introduction

Facing escalating global challenges such as extreme weather, environmental pollution, poverty, and uneven development, the need for businesses to weave social and environmental considerations into their operations is increasingly urgent. Environmental, social, and corporate governance (ESG) indicators have emerged as key metrics in sustainable business practices, prompting entrepreneurs to reduce environmental and societal impacts while actively improving governance (Folqué et al., 2021). In this context, family firms (FFs), which constitute a significant portion of the economic landscape, are crucial in driving sustainable development (Abeysekera & Fernando, 2020; Gillan et al., 2021; Rees & Rodionova, 2015).

FFs often prioritise the preservation of family members' influence over company affairs, extending beyond mere financial considerations to appointing relatives to key roles and overseeing board activities directly (Zellweger et al., 2012). A key trait of these firms is their emphasis on socio-emotional wealth (SEW), valuing emotional attachment and legacy, which may lead to prioritising family values over economic gain (Gomez-Mejia et al., 2010). SEW encompasses the family's emotional attachment and legacy, leading to decisions that might prioritise familial values over economic gains (Berrone et al., 2012). This focus on SEW encourages FFs to engage in socially responsible practices (Venturelli et al., 2021) and ESG initiatives (Rees & Rodionova, 2015) to protect this intangible wealth.

ESG are a series of commitments to responsible investment and has become pivotal in shaping investment preferences and corporate strategies. The investment community's shift towards actively seeking ESG opportunities is to boost a company's market value and, hence, the firm's reputation (Barko et al., 2022), enhance corporate value and attract socially conscious investors (Dyck et al., 2019). Integrating ESG practices in family businesses represents strategic alignment with market trends and a necessary response to escalating global challenges like climate change and social inequality. With their long-term operational focus and deep community ties, FFs are well-positioned to benefit from robust

ESG practices. These practices align well with their SEW, which includes preserving family legacy and reputation—elements integral to the natural goals of sustainable business practices.

However, there is no unified conclusion on the preference of family businesses to participate in ESG. However, the inclination of FFs towards risk aversion might lead to lower research expenditure and engagement in potentially harmful activities, impacting ESG initiatives. Some evidence suggests family control could negatively affect ESG engagement due to concerns over SEW damage, limiting investments in perceived risky areas (Rees & Rodionova, 2015). Kellermanns et al., (2016) support this view, suggesting that the fear of damaging SEW and financial performance makes FFs cautious in their investment decisions.

Institutional investors' attitudes towards ESG are nuanced. In comparison, higher ESG is linked to increased market valuations and positive returns in developed economies (for instance, in Norway (Semenova & Hassel, 2019) and Germany (Velte, 2017)). However, the motivation for ESG engagement appears to be less pronounced in developing economies (Lamb & Butler, 2018), with countries like China showing a lag in ESG willingness and capability (Singhania & Saini, 2021). Huang (2021) suggests this could be due to the need for ESG engagement explicitly reflected in financial statements, where unproductive investments might adversely affect the company's interests. In the emerging Markets, the nascent stage of ESG engagement has led to limited attention from investment and financing institutions, with only a few developing specific ESG metrics. X. Zhang et al. (2022) note that even heightened ESG engagement may not translate into higher returns in such a context, prompting investors to approach ESG investments cautiously.

Moreover, while institutional investors may promote ESG practices with an eye on short-term returns, their influence often conflicts with the traditional operational model of FFs (Zhou et al., 2022) which is characterized by centralized decision-making and a focus on privacy. Institutional pressures for transparency and accountability may clash with family firms' preferences for discretion and control, leading to intense scrutiny of how these divergent priorities can be reconciled.

Given these varied perspectives, there is no consensus on whether family control positively or negatively impacts ESG engagement, or if it remains neutral. Furthermore, the extent to which family

ESG engagement is influenced by non-family holdings remains a point of controversy. This controversy raises critical questions about the underlying reasons for these differences (Gillan et al., 2021). To address this ambiguity, it is essential to deconstruct the ESG structure and examine the nuanced attitudes of family-controlled firms towards environmental, social, and governance aspects.

3.2 Literature review

External factors in the FFs ESG- Environmental and Social factors

Developed countries studies suggest that FFs are more likely to invest in ESG engagements to gain reputation and achieve non-economic goals; this is not necessarily the case for FFs in emerging markets (Desender & Epure, 2021). Rodrigo et al. (2016) find this association insignificant in emerging markets, attributing it to less developed legal and policy frameworks and weaker enforcement mechanisms, which can foster corruption. El Ghoul et al. (2016) observe that FFs are less likely to invest in social responsibility in environments with low press freedom, high political connections, and weak investor protection. In such environments, the motivation to enhance reputation through social responsibility activities is diminished.

In Bangladesh, FFs lack engagement with social responsibility issues like pollution and child labour. This disengagement is often masked by less stringent auditing practices (Khan et al., 2015). Similarly, in Taiwan, which is characterised by weak investor protection and equity investment, FFs show limited activity in social and environmental domains (Shu & Chiang, 2020). In India, the situation is compounded by poor compliance with local subsidiary regulations, and weak reporting, and monitoring structures, leading to a general disinterest in social responsibility and environmental governance among FFs stakeholders (Singh & Mittal, 2019). This lower environmental and social responsibility trend is more pronounced in East Asian economies, particularly in FFs operating within irregular political systems (El Ghoul et al., 2016).

While some Chinese companies show potential in strengthening environmental concerns (Hu et al., 2018), the lack of stringent penalties from the government for environmental negligence leads to a general disinclination among managers and investors to prioritise environmental protection (Xiang et al., 2021). Zhang et al. (2021) discovered that FFs in less developed regions of China face higher costs for environmental maintenance but lower penalties for violating environmental laws, creating a

disincentive for compliance. Additionally, evidence suggests a negative correlation between family control and environmental performance in China. Ma et al. (2022) note that firms with higher family shareholdings, which imply greater alignment, may disclose less about their environmental liabilities to minimise the risk of exposure to entrenchment behaviour. Furthermore, environmental and social protection are heavily influenced by ethical norms, moral leadership, and cultural traditions rather than by a strict legal framework (Yin & Zhang, 2012).

Chinese FFs are often perceived narrowly, focusing on contributing to the country's GDP through job creation and tax payments. This approach aligns strategically with gaining favour from government officials, a crucial aspect of regional business operations (X. et al. et al., 2015). The traditional Chinese, politically oriented mindset tends to create discriminatory policies against non-state enterprises (Du et al., 2014). Such subjective governmental barriers can significantly increase the financial burden on firms, negatively impacting their environmental performance (P. Tian & Lin, 2019). As a result, social initiatives in Chinese FFs tend to be more symbolic, aimed at legal compliance and maintaining a satisfactory level of SEW (Du et al., 2017), rather than enacting substantive social change.

Despite these trends, it is important to acknowledge that an increasing number of Chinese FFs are engaging in charitable activities. However, Du (2015) hints that this often serves as a strategic move to mitigate or mask corruption and immoral behaviours rather than as a genuine act of social responsibility. These practices indicate a broader trend where many socially irresponsible practices emerge, even with the government's tacit approval. These include acquiring funds from dubious sources, undercutting workers' wages, and arbitrary employment practices (X. et al., 2015).

The management style in Chinese FFs, deeply rooted in kinship-based relationships and often led by patriarchal figures, further complicates the scenario. The centralised power in these businesses can lead to corporate strategies that are more prone to unethical and socially irresponsible behaviours (Adams et al., 1996). This management approach, coupled with the broader socio-economic and political context in China, shapes Chinese FFs' unique social responsibility landscape (N. Xu et al., 2015). It is a dilemma in China where social responsibilities are not spontaneous but forced for Chinese firms. So, based on the background, we propose the hypothesis:

Hypothesis 1a: Family control negatively correlates with environmental performance in Chinese FFs.

Hypothesis 1b: Family control negatively affects social engagement in Chinese FFs.

The internal component of Family Businesses' ESG: The Corporate Governance factor

In China, FFs have evolved to adapt to the unique business culture shaped by a relatively recent history of private ownership. These firms typically feature concentrated ownership structures, emphasising the mitigation of operational risks to protect asset value (Peng et al., 2018). Emotional bonds and familial relationships play a crucial role in shaping the governance structures of these businesses (Tabor et al., 2018), reflecting a deep concern for operational risks and corporate governance.

Under Confucian-centered family values, Chinese FFs promote principles such as filial piety, obedience, and loyalty within the company, impacting management practices (Bell, 2010). The expansion of these firms often leads to increased reliance on external labour, yet the management and communication costs with non-family employees tend to be higher. This dynamic reinforces loyalty to family members and established beliefs (Warner & Zhu, 2010). Meanwhile, due to the expansion of the firm and business, there is increased demand for external labour, but the communication and management costs of non-family employees are often greater than those of family employees. Under this, family managers will be more loyal to their family members and beliefs (Kim & Gao, 2013a). In a developing economy such as China, ambiguous legal and regulatory procedures allow for a greater scope of informal relationships to operate (Hameiri & Jones, 2018). In such a legal context, concentrated family control can lead to increased possibilities for profitability and expansion.

In addition, the family can continue expanding its business control by appointing trusted family representatives, strategic control systems, increased market discipline and additional performance gains through uncertainty policies (Villalonga & Amit, 2006). Moreover, family managers will subordinate their interests to the collective interests of the business as they see the greater utility in cooperative behaviour, which contributes positively to firm performance (Gomez-Mejia et al., 2019). Therefore, a stable and desirable corporate governance structure is essential for Chinese FFs.

A distinctive feature of Chinese FFs is the concentration of decision-making and management

in the hands of family members and close partners (Carney, 1998). For Chinese FFs, the concentration of ownership creates a situation where the owners' interests are naturally aligned. In this culture, sources of information and business solutions are centred on relationships or the development and use of contacts to gain favour among people (Luo, 2006). Strong family-oriented values and the prevalence of nepotism make it obvious that Chinese family companies have the distinctive claim to avoid appointing non-family members to top positions as much as possible (J. et al., 2015).

The concentration of ownership can also facilitate a rapid decision-making process. When the institutional government encourages innovative entrepreneurship in Taiwan, some acumen Taiwanese FFs quickly align and realign strategies and access to large subsidies and profits (Chung, 2001). Ramos et al. (2016) pointed out that if families expand their influence in the top management ranks, the positive impact of family control on company performance will also broaden because strong corporate control and unity of purpose allow the company to adjust its strategy with great agility.

Hypothesis 1c: Family control positively influences corporate governance performance in Chinese FFs.

Institutional Ownership and Corporate ESG Deconstruct

In Chinese FFs, the influence of institutional ownership on environmental and social engagement presents a complex interplay. While institutional investors typically advocate for enhanced environmental practices, such as improved disclosure, compliance with international standards, and sustainable technology investments (Clarkson et al., 2008; Dhaliwal et al., 2011), their impact is often moderated by the dominant family control. Families with substantial influence tend to resist changes in environmental policies that might conflict with their interests or values (Anderson & Reeb, 2003; Berrone et al., 2010). This resistance means FFs prioritise long-term control and stability, often at the expense of broader environmental and social objectives (Jiang & Peng, 2011).

Furthermore, institutional investors in Chinese FFs face additional challenges in terms of social engagement. Despite their general inclination towards promoting social responsibility, the effectiveness of these efforts is frequently limited by the family's focus on maintaining control and preserving SEW. The Chinese business environment, focusing on economic growth and strong government relations, often leads to a less assertive stance from institutional investors in driving social engagement initiatives

(X. et al. et al., 2015). As a result, institutional ownership might not only be less effective in enhancing social performance but could also negatively moderate the relationship between family and social engagement.

Moreover, in FFs, investors' sensitivity to family preferences means that other institutional owners influence these businesses less. Families often resist pressure from institutional investors to comply with environmental protection and social responsibility standards (Abeysekera & Fernando, 2020a; Westhead & Howorth, 2006). Particularly in labour-intensive industries, Chinese FFs may prioritise profit over environmental concerns, leading to practices that harm the ecological balance and contribute to the notoriety of some, such as sweatshops (Du, 2015). This reflects a significant negative relationship between family control and environmental engagement, especially in developing countries.

Traditionally, private enterprises in China have been less involved in corporate social responsibility initiatives, but nowadays, many private enterprises have social and political responsibilities that exceed legal and regulatory requirements (K. et al., 2016). Under such circumstances, environmental protection and corporate social responsibility initiatives might be perceived merely as burdensome expenses. Therefore, they are more inclined to emphasise their investments' short-term financial returns and performance metrics, sidelining the broader, sustainable objectives (Hu et al., 2018).

Therefore, based on the above literature, we propose the following hypotheses that are:

Hypothesis 2a: Institutional ownership negatively correlates with environmental performance in Chinese FFs.

Hypothesis 3a: Institutional ownership negatively moderates the relationship between family control and environmental performance in Chinese FFs.

Hypothesis 2b: Institutional ownership negatively correlates with social engagement in Chinese FFs.

Hypothesis 3b: Institutional ownership negatively moderates the relationship between family control and social engagement in Chinese businesses.

Shareholder logic advocates management control by non-family professional managers to maximise shareholder value, which conflicts with family control logic. The context of Chinese FFs

offers insights into the potential benefits and challenges of institutional ownership in governance. Stewardship theory suggests that stewards (managers or directors) are motivated to act in the company's best interests, aligning their goals with those of the (Davis et al., 2010).

However, the introduction of institutional ownership in family-dominated firms can create tension. At the corporate level, higher family control strengthens family governance control and makes the family more likely to retain management control, which is unacceptable to investors (D. Xu et al., 2019). While additional investors can bring in diverse perspectives and governance practices, it may also conflict with the traditional family-centric governance structures, especially in firms where preserving SEW is a priority (Neubaum et al., 2017). This conflict can lead to resistance from family members against adopting new governance practices, potentially negatively impacting the overall governance efficiency (Gomez-Mejia et al., 2019; Villalonga & Amit, 2006).

Therefore, based on the above literature, we propose the hypothesis that:

Hypothesis 2c: Institutional ownership negatively correlates with Chinese FFs' governance performance.

Hypothesis 3c: Institutional ownership negatively moderates the relationship between family control and corporate governance performance in Chinese FFs.

Further, to describe our hypotheses more clearly, we set up Figure 1.

（insert Figure 1 here）

3.3 Methodology

3.3.1. Data collection

This research uses the China listed company data on the stock exchange, augmented by HuaZheng ESG scores. The primary data from 2009 to 2019, listed FFs, includes annual reports and comprehensive market data. This timeframe was selected to capture the distinct dynamics of corporate governance and ESG performance across varying economic conditions, notably the aftermath of the 2008 financial crisis as documented and the COVID-19 epidemic, which is unpredictable for business operations.

FFs were selected based on clear annual report disclosures, with at least 20% family control and a family member as chairman, ensuring significant family influence on governance. Financial sector firms were excluded due to distinct regulatory standards. After removing firms with less than a year of

listing or incomplete data, the final dataset consists of 1,561 firms and 9,498 observations. To ensure data integrity, values outside the 2.5th and 97.5th percentiles were adjusted to their nearest thresholds, normalising the distribution.

3.3.2. Description of Variables

Independent variables

To calculate the actual control of the company by existing family members, we use the proportion of control of listed companies owned by actual family controllers, also called voting rights. Voting rights represent the power of control of a company (Nenova, 2003). To calculate the degree of control of family members over the company, we summed the family proportion of shares as family control power. Specifically, the chain of equity relationships between the effective controller and the listed company or the aggregate of the weakest layer or layers of several chains of equity relationships is required (Claessens et al., 2000; La Porta et al., 1999).

Dependent Variables

The dependent variables are the E, S, and G ratings from the HuaZheng ESG score, a localised indicator tailored to the Chinese market, and this is one of the most popular ESG databases in Chinese firms (Deng et al., 2023). These ratings, ranging from 0 to 100, offer a nuanced assessment of corporate performance in environmental, social, and governance aspects. The HuaZheng ESG score's adaptation to the Chinese context, considering political, legal, and cultural factors, enhances its relevance and accuracy in measuring corporate performance. More detailed indicators are given in Table 1.

[insert Table 1 here]

Moderator Variables

Institutional Ownership: Expressed as a percentage ranging from 0 to 100%. These institutional investors are corporate legal entities, such as mutual funds, pension funds, and insurance companies, that engage in securities investment activities. They invest using either their own funds or funds pooled from a dispersed public, including both domestic and foreign entities.

Control variables

Control variables are introduced to minimise extraneous influences on our model. Including

Firm listed age (number of years of incorporation minus one) and Firm market capitalisation size (we use the natural logarithm of the company's total assets). Listing age can indicate a company's maturity and stability, while market capitalisation reflects its size and market influence. These factors are crucial in understanding a firm's operational context and potential impact on ESG performance (Abdi et al., 2022).

Financial performance has been proven to affect ESG investment and participation preferences (Nirino et al., 2021). We include Return on Equity (ROE), leverage rate, and Book-to-Market Ratio (BM). ROE is a key indicator of financial efficiency, reflecting a company's ability to generate profits from shareholders' equity. It provides insights into management effectiveness and overall financial health, which can influence ESG practices. The leverage rate, indicating the degree of a company's financial leverage, helps assess risk levels and financial stability, which can impact a company's ESG commitments and capabilities. BM (Book-to-Market Ratio) is a commonly used company financial metric that evaluates a company's market valuation compared to its book value. Investment analysis often uses this ratio to help investors determine whether a stock is overvalued or undervalued. Meanwhile, Management fee rate (Mfee) and management and administrative expenses are part of the company's total expenses. If these expenses account for too high a proportion of the company's revenue, it may indicate that the company is inefficient in management and administration.

We also include the index of corporate governance. Previous research shows that audit committees' independence and professionalism significantly impact ESG performance (Pozzoli et al., 2022). We consider whether a standard auditing firm audits the company. This factor is crucial as it reflects the company, and audits by these firms are often associated with higher standards of corporate governance and can influence the company's ESG performance. In addition, we add the top ten shareholders in our model; the 10 holdings can assess the impact of ownership concentration on a company's ESG performance and whether larger shareholder groups can exert pressure or drive change on ESG issues.

[insert Table 2 here]

3.3 Data analysis

Recognising the potential for bidirectional causality between family control and ESG performance, we adopt a Two-Stage Least Squares (2SLS) methodology within a Two-way Fixed Effects framework to address endogeneity. This approach is especially appropriate for our analysis, given its capacity to isolate causal relationships in scenarios where independent and dependent variables may reciprocally influence each other. Furthermore, acknowledging that the effects of ESG engagement on a company's performance and ratings may not be immediate, we introduce a one-year lag for all ESG scores.

In Chinese, the top managerial position is typically designated as General Manager (GM). This title superficially corresponds to the Chief Executive Officer (CEO) role common in Western corporate structures, such as those in developed economies like the United States. However, this nominal equivalence obscures significant differences in the actual authority and involvement in operations between the two roles. Existing literature on Chinese corporate management often merges the GM and CEO roles, implicitly ascribing to the GM comprehensive oversight of daily operations and strategic decision-making authority similar to that of Western CEOs. Contrary to these perceptions, the GM in many Chinese enterprises lacks significant autonomous decision-making power, especially in areas critical to strategic importance (F. et al., 2015). The GM's operational scope is notably restricted by the dominant influence of the Board Chairman, who generally plays a central role in corporate governance and strategic direction.

Given this backdrop, we choose the dummy variable "whether GM is a family member" as our instrumental variable (IV). Our econometric analysis unfolds in two stages: initially, we predict family control using the GM as an instrument, and subsequently, we evaluate its effect on ESG performance, taking into account the moderating effects of institutional investors. This methodology enables us to thoroughly examine the direct impact of family control on ESG outcomes.

Initial Examination:

$$FAM_{i,t} = a_0 + a_1 \text{ General}_{\text{i,t}} + a_2 \text{ X}_{\text{i,t}} + \text{ u}_{\text{i}} + \lambda_t + \mathcal{E}_{i,t} \quad (1)$$

Testing the Moderating Effect:

$$E,S,G_{i,t+1} = a_0 + a_1 \ FAM_{i,t} + a_2 \text{ Moderator}_{\text{i,t}} + a_3 \text{ Centralised_interaction}_{\text{i,t}}$$

$$+ \sum \alpha_4 \, \mathrm{CONTROLS}_{i,t} + u_i + \lambda_t + \mathcal{E}_{i,t} \quad (2)$$

The i means the individual company, and the t implies time. Moreover, where $\mathcal{E}$ is the errors. u captures firm-fixed effects and λ for the time-fixed effect. Meanwhile, we use robust standard errors. In order to avoid the influence of multicollinearity, we centre the two variables when dealing with the cross-product.

3.4 Empirical results

3.4.1 Model validation and Descriptive statistics

To measure the strength of the linear correlation between variables, we need to test the Pearson product-moment correlation coefficient. Table 3 presents multicollinearity results and the correlations between the independent variables associated with our regression.

[insert Table 4 here]

Table 5 below reports descriptive statistics for the entire sample of the study variables used. According to the company's environmental, social, and governance ratings, we found the ecological rating to be lower than others. Although the maximum environmental rating is 8, the mean of E is 1.93, and the middle rating is 1, we can say that in China, almost all of the listed FFs' environmental performance is unsatisfactory. The S rating is slightly behind the G but stronger than the E. The G rating and performance were the best, with an average of 4.56 and a median of 5.07. In contrast, listed family companies in China will prefer corporate governance.

[insert Table 5 here]

3.4.2. Regression results

Validity of Instrumental Variables

In this section, we perform a panel regression to test the hypotheses. Firstly, we need to test the validity of instrumental variables (IVs), which is crucial for our analysis. Table 6 presents the results for the Environmental (E), Social (S), and Governance (G) scores. The significant Kleibergen-Paap rk LM statistics across E, S, and G scores (P-value < 0.001) confirm the strong relationship between the instrumental variable (GM's role) and the endogenous variable (family control), fulfilling the relevance condition for a valid IV. This demonstrates correct model identification and the appropriateness of the chosen IV.

Furthermore, the Cragg-Donald Wald F statistic and the Kleibergen-Paap rk Wald F statistic for all scores significantly surpass the Stock-Yogo critical values for weak identification at conventional thresholds (10%, 15%, 20%, and 25%). This indicates that the GM's role as an IV possesses adequate statistical strength, ensuring the reliability of the IV estimates and mitigating concerns of weak identification.

In summary, a dummy variable for whether the GM is a family member as an IV for family control in analysing ESG performance is statistically validated by both under- and weak-identification tests. These tests verify the GM's role as both relevant and robust, satisfying the criteria for a valid IV approach. With the equations precisely identified, overidentification concerns are not applicable. Hence, employing the General Manager as the IV is appropriate and effective for addressing endogeneity between family control and ESG performance in Chinese listed companies. Then, we further test the hypotheses.

Regression Analysis

In the regression process, to reduce the impact of undetectable factors on the credibility of our results, we used two-way fixed regression using robust standard errors. Table 6 shows the coefficient results of our basic regression of the association between E, S, and G.

[insert Table 6 here]

Environmental Performance (E)

Hypothesis 1a posited a negative correlation between family control and environmental performance, contradicting the regression results. The positive coefficient for family control ($p < 0.05$) suggests that contrary to Hypothesis 1a, family control in Chinese firms is significantly positive associated with enhanced environmental performance. This unexpected outcome could be attributed to several factors. Firstly, FFs, driven by a long-term orientation and a desire to preserve their legacy, may increasingly recognise the importance of environmental stewardship. Under SEW, recognition could stem from a strategic perspective that aligns environmental sustainability with the firm's reputation and operational efficiency (García-Sánchez et al., 2021), even in a regulatory environment characterised by weak enforcement (Hu et al., 2018). Additionally, FFs leverage environmental engagement as a

differentiation strategy, anticipating future regulatory tightening and societal expectations towards sustainability.

Hypothesis 2a verified that the negative association with environmental performance (-0.927*, $p < 0.1$) indicates that institutional investors' focus might still be predominantly on short-term financial returns rather than long-term environmental sustainability. The impact of ownership structure on environmental preferences is obvious as China has laws and regulations that oblige businesses to take on environmental responsibility, but there is no strong enforcement; this is equivalent to a disguised encouragement for investors and business managers to not comply with environmental conventions and with more freedom (R. Wang et al., 2018). Furthermore, Chinese laws and regulations change frequently and are loosely interpreted by regional governments (Xiang et al., 2021); those responsible for protecting the environment face unpredictable costs and risks. Therefore, Chinese investors are unwilling to invest much in environmental performance (Du, 2015).

Hypothesis 3a was also verified by our regression results, which means that institutional ownership will negatively moderate the relationship between family and environmental protection. Existing studies have shown that the environmental protection behaviour of Chinese family enterprises is a huge cost, and a large amount of environmental protection investment in the initial stage will lead to a decline in corporate profits (X. Li et al., 2022). A large part of institutional investors in China hold short-term shares. They will focus more on short-term economic returns (F. et al., 2015) rather than treating the enterprise as their continuation and legacy like family members. Long-term investments in an environment with an inadequate legal system and poor social security are undesirable (Richard, 2019). This long-term low return on environmental investment can potentially harm investor benefits.

Social Engagement (S):

Hypothesis 2a, 2b, and 2c test results suggest that family and institutional ownership does not significantly impact social responsibility engagement. The non-significant coefficient for family control, institutional ownership and moderating effect on social performance ($p > 0.1$). This result indicates a neutral impact, which could reflect the symbolic nature of social initiatives in Chinese FFs. On the one hand, these firms may engage in social activities more for compliance and reputation management,

aligning with government expectations rather than genuine social change. This strategic approach focuses on maintaining favourable government relations and social standing without necessarily translating into substantive social engagement. On the other hand, companies and investors assuming social responsibilities and establishing political relationships can increase shareholder wealth and promote public welfare; however, in the long run, relying on political connections to obtain extraordinary returns, gain unfair competitive advantages, and harm social welfar. This means that investors and families receive government interference and local policy influence when assuming social responsibilities, and reasonable behaviours are not spontaneous (R. Wang et al., 2018).

Besides, under lax law enforcement (Banik & Lin, 2019) and tax discrimination (Du et al., 2017), Chinese FFs have no motivation to engage society to give back even under the SEW. This could be due to the symbolic nature of social initiatives in Chinese FFs, where such activities are more aligned with legal compliance and maintaining a satisfactory level of SEW rather than enacting substantive social change. The strategic focus on gaining favour from government officials and leveraging government-controlled resources might further dilute the potential moderating influence of institutional investors on the family control-social engagement relationship. Namely, Chinese enterprises, investors, and the government are developing corporate social responsibility, and very few companies have implemented social responsibility (Arrive & Feng, 2018).

Governance Performance (G)

The Panel regression shows a positive relationship between family control and corporate governance performance, which is significant at the 0.01 level. This result is consistent with our hypothesis 1c. Family businesses in China have relatively concentrated ownership, which can also facilitate rapid decision-making processes (Shyu, 2011). Chinese FFs' management and governance style is centred on Confucian leadership and management values. This traditional philosophy can enhance the quality and nature of the relationship between employees and their families (Tsao et al., 2009).

Hypothesis 2c suggested that institutional ownership negatively correlates with Chinese FFs' governance performance. The regression results indicate a negative coefficient for institutional

ownership on governance performance ($p < 0.05$), supporting this hypothesis. This finding reflects the potential governance conflicts that can arise when institutional investors, with their distinct governance practices and perspectives, interact with traditional family-centric governance structures. The resistance from family members against adopting new governance practices introduced by institutional investors could lead to inefficiencies in governance mechanisms, particularly in firms where preserving SEW is a priority.

Hypothesis 3c posited that institutional ownership negatively moderates the relationship between family control and corporate governance performance. The negative impact of institutional ownership on governance performance aligns with this hypothesis, suggesting that introducing institutional investors into family-dominated firms can create tension and conflict within governance structures. This tension might stem from differing priorities and values between family owners, who focus on long-term control and stability, and institutional investors, who may advocate for governance practices to enhance transparency and accountability. Regarding checks and balances among Chinese shareholders, private shareholders are obviously profit-seeking. Private shareholders in FFs influence the family's performance in terms of interests and governance through equity checks and balances. In order to protect their culture, family members will control the family and become more cautious in strategic decisions under such circumstances.

Control variables

We also have some interesting common findings regarding the control variables. Company size is generally a positive predictor of ESG performance, highlighting the resource advantages that larger companies have in meeting ESG standards and the government's additional responsibility requirements for large companies. At the same time, these family-owned companies also face stricter public supervision, further Maintaining the family's reputation and SEW.

Furthermore, Market valuations represented by BM negatively impact ESG performance across all three dimensions, suggesting that companies with higher growth expectations in China may prioritise financial metrics over ESG results. On the one hand, this prioritisation may stem from a strategic focus on short-term market performance, which may come at the expense of long-term

sustainability and stakeholder engagement; on the other hand, promotions of Chinese government officials are mainly based on local economic development indicators. , companies with higher economic performance, and local governments will tend to "give the green light" to companies with development potential to obtain better financial performance rather than ESG strategies and engagement.

In addition, we have some different views on profitability. Previous research has shown that when it comes to environmental investments that may benefit society but not shareholders, FFs make significantly lower investment-reducing investments to protect shareholder interests (Liu et al., 2017). However, our result is that S is positively related to profitability. As we said before, when there is sufficient economic development potential, China's large enterprises will be forced to assume more social responsibilities (Lin et al., 2020).

3.4.3 Robustness Test

To enhance the robustness of our findings, we took two steps: firstly, we refined our analysis to focus exclusively on the manufacturing sector; Secondly, we added interaction terms between manufacturing and non-manufacturing for FFs. This decision is grounded in the understanding that manufacturing firms possess more complex industrial chains compared to their non-manufacturing counterparts. They are notably more susceptible to changes in environmental and governance regulations, which significantly influence their production operations, social engagements, and overall management practices, thereby exerting a profound impact on their ESG performance (Y. Lu et al., 2023).Chinese industrial sector exhibits limited investment in green growth initiatives, characterised by a general weakness in enterprise management and resource allocation capabilities. This sector is populated by a considerable number of enterprises with outdated technologies and subpar management practices. Moreover, compared to Western counterparts, Chinese family-owned manufacturing firms tend to prioritise private benefits over public welfare. This suggests that controlling families may leverage their dominant positions to divert resources away from environmental and social initiatives towards more lucrative markets (Xiang et al., 2021).

The final robustness result as the table can be seen in Table 7:

(Insert table 7 here)

The first test reveals that family control positively influences environmental and governance dimensions yet has minimal impact on social initiatives. This finding aligns with previous tests, underscoring the role of family control in enhancing ESG performance within Chinese manufacturing. However, the interaction between family control and institutional investments negatively affects all ESG dimensions, suggesting conflicts in resource allocation and governance strategies.

The second test reveals that family control's positive influence on ESG performance encounters significant barriers within the manufacturing sector. The interaction term's negative coefficients across ESG dimensions indicate that manufacturing's unique challenges—operational demands, regulatory pressures, and competitive dynamics—limit FFs' ability to enhance ESG practices. Specifically, environmental challenges and the need for substantial sustainability investments pose considerable hurdles, while social responsibilities, often mandated by government directives, become obligatory rather than voluntary actions. Governance structures that work outside the manufacturing sector struggle to adapt to its complexities.

In Chinese FFs, decision-making is highly centralised, and institutional investors sensitive to managerial pressures may shy away from advocating for green initiatives to avoid potential conflicts of interest with the management (L. et al., 2022). In scenarios where market competition intensifies, the controlling family may dilute governance measures favourable to shareholders. Institutional investors find themselves unable to align their objectives within the governance framework, leading to conflicts (D. Xu et al., 2019). Under unavoidable factors, the crisis may slow down the enthusiasm of companies to engage with the environment (Guérin & Suntheim, 2021). When an economic crisis hits, shareholders may carefully choose their social responsibility-related strategies to avoid a significant drop in corporate profits (Kavoura & Sahinidis, 2015). Corporate governance practitioners will seek out important and effective governance mechanisms wherever possible (Jebran & Chen, 2023).

3.5 Discussion and conclusion

Over the past decade, ESG engagement has emerged as a crucial metric for investors, with studies demonstrating a positive link between environmental performance and financial outcomes, suggesting varied motivations behind ESG initiatives (Velte, 2017). The effect of family control on ESG remains debated, showing both positive and negative impacts, influenced by geographic and industry-

specific factors (Abeysekera & Fernando, 2020; Alazzani et al., 2021) and negative effect (El Ghoul et al., 2016; Rees & Rodionova, 2015). Our study contributes to this discussion by examining the nuanced relationship between family control, institutional ownership, and ESG engagement.

We introduced a novel instrumental variable, the role of the General Manager as a family member, to explore management's influence in Chinese firms, where GMs often hold limited power (F. et al., 2015). Our findings indicate a complex dynamic where family control positively correlates with environmental commitment but is negatively moderated by institutional ownership. This is attributed to FFs prioritising environmental protection for reputation and compliance with China's green policies despite challenges from lax enforcement and discriminatory policies(Xiang et al., 2021). Moreover, the Chinese government's discriminatory tax policies and stringent production requirements for private enterprises, as opposed to state-owned ones, compel investors to intensify resource exploitation (Du, 2015). This not only seeks to maximise profits but also risks depleting resources and harming the ecological balance (X. et al. et al., 2015).

Contrastingly, we found no significant link between family control and corporate social engagement, suggesting FFs' social initiatives are more regulatory-driven than voluntary (Du et al., 2014). Acts of social responsibility by FFs often aim to fulfil policy requirements, securing local authorities' support and preference (Banik & Lin, 2019). This reflects the broader issue of political and regulatory constraints on social responsibility within FFs (See, 2009).

However, family control shows a positive relationship with corporate governance, challenged by the contrasting priorities of institutional investors. The centralised management typical in FFs, rooted in Confucian values and SEW, aligns owner interests, enhancing governance (J. et al. et al., 2015). The pursuit of emotional and strategic benefits leads to prioritising collective family interests over individual ones, enhancing governance performance (Gomez-Mejia et al., 2011). However, institutional investors introduce governance tensions, emphasising transparency over the long-term stability favoured by family owners (Neubaum et al., 2017).

Focusing on China's manufacturing sector, we highlight its unique ESG challenges, where the pursuit of efficiency often conflicts with sustainable investment needs. This sector's resource intensity

and environmental impact underscore the importance of sustainable practices. Yet, family-owned manufacturing firms face difficulties in leveraging their ownership for ESG improvements due to cost, expertise demands, and short-term financial priorities.

Overall, we believe family control in ESG engagement is contentious because families have different preferences for environmental, social and governance, and this preference will be moderated by ownership structure and specific industries. These results have practical implications, as they highlight that FFs' engagement in ESG cannot be considered an overall investment indicator for FFs. Future research could further consider a more in-depth analysis of the differences within FFs, such as in developing countries, in terms of which components of the environment, society and governance are the main influences on corporate financial performance. Meanwhile, we only used one ESG indicator, and future research can try other indicators of localised companies. In addition, we focus on a sample of publicly traded companies, whereas going public affects numerous factors, which may enhance the reputational concerns of FFs. Therefore, analysing small or unlisted FFs may also be relevant.

Chapter 4: ESG Engagement as a Bridge: Linking Social Emotional Wealth to Financial Performance in Chinese Family Firms

4.1 Introduction

Fuelled by a commitment to sustainable development, there has been a significant uptick in corporate engagement with sustainability initiatives (Dhaigude et al., 2023). However, most research has been conducted within the framework of developed economies (Singhania & Saini, 2021). Emerging markets are rapidly growing, but there is a corresponding lack of sustainable research. If such countries develop unsustainably, it could lead to serious structural problems, political conflicts, or environmental damage (Lozano & Martínez-Ferrero, 2022). Adopting responsible strategies and engaging in ESG enhances a company's image, performance, and productivity (Gillan et al., 2021) and aligns it with broader societal values (Doluca et al., 2018).

Emerging markets are characterized by rapid economic growth and development. Family firms (FFs) often represent a significant portion of the economy. Their financial performance not only affects their own sustainability and growth but also has broader implications for the economic health and development of the entire region (García-Sánchez et al., 2021). Within this context, family firms are especially motivated due to their socio-emotional wealth (SEW) (Deephouse & Jaskiewicz, 2013), broadly seeking to enhance their reputation and increase profits.

On the one hand, family owners often retain control over company management, increasing their influence over decision-making to protect their SEW (Silva & Majluf, 2008). Family firms are motivated by the goal of passing a healthy and robust business on to future generations. In emerging markets, this aspect is particularly critical as these firms navigate more unpredictable economic environments. Good financial performance ensures that the business remains viable and competitive over the long term, helping to secure the family legacy against potential economic downturns or increased competition.

On the other hand, family members typically perceive their business as a personal extension, with long-term objectives and strategies (Gómez-Mejía et al., 2007) aligning closely with ESG

commitments (Sun et al., 2023). This alignment means that ESG initiatives resonate with the notion of enhancing the family's social image and meeting ethical responsibilities, naturally leading to ESG engagement due to the interplay of family identity and business practices (Hendratama & Huang, 2022). In emerging markets, adopting good governance practices as part of broader ESG criteria can significantly improve a firm's financial performance, as good governance promotes transparency, reduces corruption, and improves management efficiency—all of which are key to winning investor confidence and enhancing profitability.

FFs often exhibit less volatility in activities related to environmental and social aspects, gradually aligning with these practices over time (Doluca et al., 2018). This distinct approach is reflected in the operational strategies adopted by FFs, significantly influencing their financial performance (Xu et al., 2019). The relationship between family control and corporate financial performance is multifaceted and non-linear and is influenced by a myriad of factors (Carney et al., 2015). Prior research has identified several internal and external elements as mediators in this relationship, including R&D investment (Sirmon et al., 2008), heir control (González et al., 2012), corporate diversification (Anderson & Reeb, 2003) and internationalisation (Fernández & Nieto, 2005). However, the joint and comprehensive external factors affecting FFs, and particularly ESG engagement, have not been thoroughly addressed (W. et al., 2023).

While previous research has explored the impact of bulk equity on corporate social responsibility preferences, the influence of family members' shareholdings on ESG preferences still needs to be examined (Mackenzie et al., 2013). The significance of ESG engagement is increasingly recognised as a vital component of corporate performance in FFs (Gillan et al., 2021). ESG has been linked to reduced systemic risk (Starks, 2009) and associated benefits, such as a broader investor base and lower litigation risk, reducing capital cost (Hong & Kacperczyk, 2009; Pedersen et al., 2021). ESG engagement plays a pivotal role in maintaining the SEW of family businesses, safeguarding them from financial and non-financial risks (Alazzani et al., 2021).Current research on family businesses has predominantly concentrated on North American and European settings (Abeysekera & Fernando, 2020; Atan et al., 2016; Fatemi et al., 2018), highlighting a notable gap in the understanding of Asian family

firms, especially those in China (Dinh & Calabrò, 2019; Massis et al., 2012). This is a significant oversight given China's status as a major emerging market and the world's second-largest economy (T. J. Wong, 2016), coupled with the critical role its predominantly family-owned private sector plays in contributing to the nation's gross domestic product (GDP) and job creation (M. Chen et al., 2021).

Our article aims to explore the impact of family control on the financial performance of family firms through ESG engagement, with a specific focus on China as a representative of emerging markets. This study contributes to a deeper understanding of how family governance, interpreted through the theoretical lens of SEW, interacts with ESG practices to influence corporate financial outcomes. The following vital contributions emerge from our research:

First, we demonstrate how family control, influenced by the principles underlying SEW, strategically aligns with ESG engagement. This alignment is explored through empirical insights that show how Chinese family firms, reflective of broader trends in emerging markets, incorporate ESG practices into their strategic frameworks to balance traditional family values with modern sustainability demands.

Second, our findings underscore the positive effects of integrating family control with ESG engagement on financial performance. This aspect enriches the discourse on family firm dynamics in emerging markets, highlighting the effectiveness of sustainable practices tailored to these economies' unique familial and cultural contexts.

Third, the research identifies ESG engagement as a crucial mediator between family control and firm performance. It illustrates how this mediation effect varies across financial performance indicators, advancing our theoretical understanding of the interplay between family governance structures and sustainable business practices.

The remainder of our study is organized as follows: in Section 2, the relevant literature is reviewed and hypotheses developed. Section 3 provides a description of the sample and variables, and documents the methodology. Section 4 includes the data analysis, empirical results, model and robustness tests. And the final section serves as a conclusion.

4.2 Literature review

4.2.1 SEW and ESG in Chinese Family Firms

The concept of socioemotional wealth is pivotal in understanding the unique dynamics surrounding family firms. As defined by Gómez-Mejía et al. (2007) and further elaborated upon by Miller Le Breton–Miller (2014), SEW encapsulates the non-economic goals and affective endowments that family members derive from their business. This includes a deep sense of identity, a desire to maintain and enhance family reputation, and the enjoyment of familial influence over the firm. When family members own the firm's shares and stock, they can become involved in investment decisions without negatively impacting performance (Ben-Amar & André, 2006). Specifically, managers derive a sense of identity from the firm, striving to create a positive family image and reputation. Meanwhile, they enjoy the family's influence over the firm and build social capital (Herrera & de las Heras-Rosas, 2020; P. Sharma & Sharma, 2011).

The alignment between SEW and ESG is rooted in the intrinsic values and long-term orientation of family businesses. Family members often view their firms as extensions of themselves, with a strong emphasis on legacy and reputation (Tan et al., 2021). This perspective naturally inclines family firms towards ESG practices, as these initiatives are seen as avenues to enhance the family's image and fulfil their ethical and social responsibilities (Sun et al., 2023). Integrating family identity with the firm's operations fosters a conducive environment for ESG engagement.

Family firms with a strong sense of SEW do not typically view the potential lack of immediate financial returns from ESG initiatives as a deterrent. While cautious about the issue, they are willing to engage in ESG practices that support their socioemotional objectives (Cucculelli et al., 2016). In other words, family members tend to be conservative and cautious in strategy formulation and investment option selection (Duran et al., 2016). Still, ESG is often seen as a long-term investment in the firm’s reputation and the family's legacy. This long-term perspective is crucial in understanding why family firms might prioritize ESG initiatives even when they do not offer immediate financial benefits (W. C. Wong et al., 2021).

The characteristics of Chinese family businesses provide a compelling context for research.

Influenced by Confucian values, these firms often prioritize familial harmony, respect for tradition and ethical conduct (Yan & Sorenson, 2006). With its emphasis on moral integrity and social responsibility, Confucianism resonates deeply with ESG principles (Dong & Li, 2023). In such a cultural setting, ESG practices are not just business strategies but are integral to maintaining the family's honour and social standing. External action to SEW will increase the motivation of family members (Gong & Hui, 2023), while the trust and favouritism that prevail within Chinese family firms further facilitate the adoption of ESG practices, as these initiatives are seen as extensions of the family's ethical values and commitment to societal well-being (Bedford, 2011). This cultural dimension underscores the broader applicability of SEW-ESG alignment across different geographical and cultural contexts.

In consideration of the above, we propose the following hypothesis:

H1:family members' SEW is positively associated with ESG engagement.

4.2.2 Family Control and Financial Performance

Family-owned businesses play a crucial role in the Chinese corporate landscape, a phenomenon often characterized by concentrated ownership in the hands of founders or their descendants. This ownership structure can effectively reduce agency costs associated with employment, giving owners the incentive and authority to supervise managers and employees closely (Shleifer & Vishny, 1997). A concentration of power of this type is not without its challenges, however. Ali, Chen, and Radhakrishnan (2006) highlighted the potential for such centralized control to lead to manipulative practices in accounting for personal profit, intimating a complex relationship between family ownership and corporate performance.

Despite such challenges, research increasingly highlights the positive aspects of family control in business performance, and especially in cultural contexts like China. Cultural norms can shape a company's strategic direction (Vallejo, 2008) and management preferences (Zahra et al., 2004). These cultural influences often lead to unique, non-economic goals that diverge from purely profit-driven strategies (Kim & Gao, 2013b).

Confucianism is the most influential culture in China (Yan & Sorenson, 2006). It promotes a family-centred and family-oriented approach and loyalty, strong commitment and contribution to the

family, which means a family business is seen as a legacy property (M. Chen et al., 2021). Thus, the Confucian framework encourages decision-making beyond profit maximization, reflecting a deep commitment to preserving family heritage and identity, key components of SEW (Herrera & de las Heras-Rosas, 2020).

Confucianism's influence permeates the fabric of Chinese FFs, advocating for strong kinship ties and a collectivist approach (Dou et al., 2014). This cultural backdrop strengthens family bonds and enhances cohesion and pride within the family firm (Kim & Gao, 2013b). These values, deeply ingrained in the business ethos, contribute to a unique perspective on SEW, emphasizing long-term family legacy and unity (S. Chen et al., 2018), SEW aligning with the core Confucian tenets of filial piety, communal harmony and intergenerational respect.

We therefore propose the following hypothesis：

H2: In Chinese family firms, strong family control is positively associated with corporate financial performance.

4.2.3 ESG and company financial performance

Extensive research on the relationship between ESG factors and a company's financial performance has yielded mixed results (Atan, Razali, Said, & Z., 2016; Buallay, 2018; Fatemi et al., 2018). Thus, empirical studies have not consistently demonstrated a direct link between the extent of a company's ESG disclosure and its financial performance or valuation. Some researchers suggest that collective family ownership may negatively impact a company's ESG performance more than closely held equity. This is attributed to the fact that, given their large and long-term stakes in companies, families may resist excessive ESG investment due to a perceived lack of direct personal benefits (Rees & Rodionova, 2015c). That being said, however, growing evidence now suggests that responsible strategic investing can yield significant benefits for family businesses (Ahmad et al., 2020).

ESG initiatives in family firms serve dual strategic roles: as a reputation investment mechanism and as a risk mitigation tool. On the one hand, ESG engagement enhances corporate reputation, investor appeal, employee satisfaction and innovation (Capelle-Blancard & Petit, 2019; W. C. Wong et al., 2021). These benefits extend beyond mere compliance, contributing to stronger financial performance (Atan et

al., 2016; Tan et al., 2021) and aligning with family members' desires for prestige and emotional affection (Graafland, 2018). Companies demonstrating leadership in social responsibility and environmental stewardship often observe a positive correlation with share price performance (Davidson et al., 2018), indicating that ESG is not just an ethical choice but a strategic investment in the company's reputation.

On the other hand, ESG acts as a risk prevention mechanism, akin to an insurance effect for family businesses. It protects companies from the negative impacts of corporate innovation, adverse social events and investment risks (T.-T. Li et al., 2021). This protective role of ESG is particularly crucial for family firms, where potential reputational and financial risks could bring harm or shame to the family. From a stakeholder perspective, increased sustainable and green activities reduces agency costs and enhances transparency (W. Chen et al., 2024), thus reducing information asymmetry (Wan Mohammad et al., 2023). This, in turn, leads to an inverse relationship between fulfilling social responsibilities and capital constraints, thereby improving access to finance (Cheng et al., 2014).

China's unique socio-economic landscape influences the integration of ESG practices within the country’s family businesses. For instance, stringent environmental regulations (Tang et al., 2020) and government-led initiatives like poverty alleviation (Chang et al., 2021) push family businesses to adopt more sustainable and socially responsible practices (Huo et al., 2023). These responsibilities are proving increasingly important for maintaining competitiveness and family reputation in a developing capital market.

Another factor to consider is that empirical evidence from the Chinese market suggests businesses with robust ESG practices tend to perform better financially (Lööf et al., 2022). This is partly because these practices help mitigate risks, enhance brand reputation and improve stakeholder relations, making ESG engagement a key factor in determining a firm's financial performance (Abeysekera & Fernando, 2020c). China is at an early stage of integrating ESG into investment strategies, and this is primarily driven by retail investors (Broadstock et al., 2021). However, a growing investment in ESG indicates a changing landscape.

In the context of this literature, we therefore propose the following hypothesis:

H3: ESG engagement can positively affect firm performance in Chinese family firms

In family businesses, adopting ESG practices serves as a bridge, particularly in China (Wu et al., 2023). Firstly, it reflects a commitment to corporate social responsibility deeply rooted in the family's values and SEW motivations. Driven by a desire to uphold family legacy and societal reputation, family-controlled firms have traditonally strongly opposed ESG initiatives (Kong, 2023). Secondly, in China's centralized governance structure, family businesses engaging in ESG activities will likely align with government priorities, potentially garnering favour and support (F. Jiang et al., 2020). This strategic alignment not only demonstrates the family's responsibility towards the business and broader society, but also enhances the firm's strategic positioning, thereby positively influencing corporate financial performance (Lee et al., 2021).

In the context of this literature, we therefore propose the following hypothesis:

H4: ESG engagement positively mediates the relationship between family control and corporate financial performance in Chinese family firms.

4.3 Methodology and Methods

4.3.1 Data collection

The primary data used for firms in this research are sourced from the China listed company data on the stock exchange 2016-2020, resulting in an initial dataset of 7,135 observations.

According to Gao et al. (2019), a company is classified as a family business in China if it is controlled by one family, several related families. To refine this categorization further, we adopted the standards set by Wu et al (2022): family firms that do not only include the explicit disclosure of family control in the company's annual audit reports or other relevant documents, but also where the family's ownership is at least 20%.

A meticulous refinement process was applied to the sample to enhance data quality and relevance. As Table 1 shows, 53 observations from the financial industry were excluded due to their unique regulatory and reporting frameworks. Additionally, 337 observations were excluded for firms listed for less than one year or those with incomplete financial, ownership and corporate governance data. To refine our sample further, 55 outliers were excluded. After applying these criteria, our final sample

consisted of 6,710 observations. To ensure the robustness of our findings and minimize the influence of undetected outliers, the dataset was adjusted by shrinking the smallest and largest 1% of all variables.

4.3.2 Description of variables

Independent variable

In this study, the independent variable was 'family control', which quantifies the extent of a family's influence over a company's decisions, primarily assessed through their shareholding. It is measured by calculating the family's voting rights, which are the shares that grant them decision-making power in the company (Nenova, 2003). When multiple family members are beneficial owners, their individual control percentages are combined. The aggregated figure represents the overall control the family exerts in the company (Claessens et al., 2000; La Porta et al., 1999).

Dependent variables

Profitability ratios are a measure of a company's overall performance. Firm performance is measured using both accounting-based measures. These backward and inward indicators represent past results, and market-based measures are forward-looking indicators that reflect the expected future earnings by the market (Kao et al., 2019). The Return on Assets (ROA) ratio measures the company's operating efficiency based on profits generated from total assets (Majed & Qabajeh, 2012). It comprises the ratio of earnings before interest and taxes over the book value of average total assets before interest on the book and is a very common return indicator of a company's performance (Di Giuli & Kostovetsky, 2014; Gillan et al., 2021; Koji, Adhikary, & Tram, 2020).

Mediating variable

The study uses the Huazheng ESG score as the mediator variable. This score is a widely recognized and popular metric for evaluating the ESG performance of Chinese firms (Deng et al., 2023). Developed by a local consulting and financial company, the Huazheng ESG score combines global ESG assessment standards with factors tailored to the Chinese market (eg. Hu, Zou, & Yin, 2023; Lu, Xu, Zhu, & Sun, 2023; Tian & Tian, 2022). It includes China’s special local characteristics, such as poverty alleviation, environmental governance and government-related incentives and penalties. This comprehensive scoring system evaluates a firm's environmental, social and governance practices,

aligning with international criteria and the specificities of the Chinese business landscape. The specific metrics and themes used in the Huazheng ESG score are detailed in Table 2.

Control variables

The study incorporates several control variables to isolate the impact of other factors affecting firm performance, including the following: **Firm Size**, measured by the natural logarithm of the company's total assets to account for the influence of the company's scale on its performance; **Leverage**, considered as the impact of a company's debt relative to its assets; **Firm Age**, which is included to capture the effects of experience and market presence, with older firms potentially having more established operational practices and market relationships; the **Fixed Asset Ratio**, which indicates the proportion of fixed assets to total assets and is used to assess the impact of long-term investments on firm performance (Alarussi & Gao, 2021); **Growth Rate**, which is included to gauge the company's expansion dynamics; and **Turnover Rate**, which is considered to evaluate operational efficiency (Gaur & Kesavan, 2015). The overall variable description is shown in Table 3.

3.3.3. Data analysis

The aim of this article is to test the ultimate impact of family control on firm performance in the context of China. To this end, the mediator approach was adopted to test the mediating effect of ESG engagement on the relationship between family control and financial performance (Figure 1). Baron and Kenny (1986) stated that the independent variable must affect the first equation to establish mediation. In the second equation, the independent variable must be shown to affect the dependent variable, and the mediator must affect the dependent variable in the third equation. This correlation between the independent and dependent variables is explained by the model. Ordinary Least Square regression analysis (using STATA 17 as a statistical software package) was employed to estimate Models 1–3, testing direct and indirect correlations between ESG engagment and financial performance.

Correlation (a) represents the direct effect of family control on financial performance and can be described as follows:

$$\mathrm{ESG}_{it+1} = \mathrm{B}_{i} + \mathrm{B}_{1}\mathrm{FAM}_{it} + \sum \mathrm{B}\ \mathrm{CONTROLS}_{it} + \mathrm{i.year} * \mathrm{i.Industry} + \mathrm{u}_{it} + \varepsilon_{it}$$

Correlation (b) represents the direct effect of ESG engagement on financial performance and can

be described as follows:

$$FP_{i,t} = a_0 + a_1 ESG_{i,t+1} + \sum\alpha CONTROLS_{i,t} + i.year * i.Industry + u_{i,t} + \varepsilon_{i,t}$$

Correlation (c) represents the centralized control practices on financial performance without any mediation effect and can be described as follows:

$$FP_{i,t} = a_0 + a_1 FAM_{i,t} + \sum\alpha CONTROLS_{i,t} + i.year * i.Industry + u_{i,t} + \varepsilon_{i,t}$$

Correlation (c') represents the centralized control practices on financial performance but with ESG mediation effect. Accordingly, we ran the following regression model:

$$FP_{it} = a_0 + a_1 FAM_{it} + a_2 ESG_{t+1} + \sum\alpha CONTROLS_{it} + i.year * i.Industry + +u_{it} + \varepsilon_{it}$$

Where u is the between-entity error, and ε is the within-entity error.

Considering that ESG will not have an immediate impact on the company, we included a one-year lag. Year-industry interaction fixed effects were introduced in the model not only to address collinearity and incorporate both non-time-varying effects, but more crucially, to capture the heterogeneous responses of different industries to economic shocks within the same period.

The mediating variables' role generates a decomposition of the total effect (c) of the independent variables on the dependent variable into a direct effect (c') and an indirect effect (a,b).

Finally, to test the robustness of the results in assessing the mediating effect of ESG engagement, bootstrapping and the Sobel test were used. Bootstrapping is a resampling technique that estimates the properties of an estimator by sampling from an approximate distribution (Efron, 2003). This method is advantageous for our analysis, since it does not depend on the normality of the sample distribution, making it a robust approach (Preacher & Hayes, 2008). Bootstrapping allows for more accurate standard errors to be calculated and is useful in constructing hypothesis verify, particularly in cases where traditional parametric assumptions may not be valid (Efron & Tibshirani, 1993).

In conjunction with bootstrapping, the Sobel test was employed to examine the significance of the mediation effect. The Sobel test is a method used to test the significance of mediation effects within a model, providing a statistical basis to determine the impact of including a mediator variable (Özdil & Kutlu, 2019).

Applying these methods allowed us to rigorously test both the direct and indirect effects in our

mediated effects models (Bollen & Stine, 1990) and provide a comprehensive understanding of the mediating role of ESG in the context of Chinese family firms.

4.4 Empirical results

4.4.1 Model validation

Table 3 shows the descriptive statistics for the study variables. The average Return on Assets (ROA) for the sample firms was 7%, reflecting their overall performance. The average family control percentage was 45%, indicating a substantial family influence in the Chinese business context. ESG scores ranges from a minimum of 41.67 to a maximum of 89.81, highlighting the varying degrees of ESG engagement among Chinese firms.

In our empirical analysis, we will first address the potential issue of multicollinearity among independent variables in our regression models. To this end, we have employed the Variance Inflation Factor (VIF) to measure multicollinearity (O'Brien, 2007). Additionally, we have assessed the linear correlation between variables using the Pearson product-moment correlation coefficient (PPMCC), which evaluates the relationship between two variables in terms of their covariance and standard deviation (Sedgwick, 2012). It is the ratio of the product of the covariance of two variables and their standard deviation. Table 4 reveals that the VIF values were 1.14, well below the commonly used threshold of 10. This suggests that multicollinearity does not significantly affect our regression models, rendering them suitable for further analysis.

A positive correlation was found between Return on Assets (ROA) and the SA index, although the correlation coefficient was relatively small (0.066***), suggesting the relationship is a modest one. Significantly, family control (FAM) demonstrated a positive correlation with both ROA and SA, suggesting that increased family involvement potentially enhances financial performance, while simultaneously mitigating financial constraints. This is further corroborated by the positive relationship between ESG performance (ESG_{t+1}) and financial outcomes, aligning with the perspective that effective ESG practices benefit a firm's financial health. Conversely, leverage (lever) negatively correlated with both ROA and SA, implying that higher leverage might adversely impact financial performance and elevate financial constraints. The negative correlation of firm size (Fsize) with SA also suggests that

larger firms might face greater financial constraints. The varied correlations of other variables, such as Turnover Rate (Dturn), Firm Age and Growth with ROA, SA and Tobins Q reflect their diverse impacts on financial performance and constraints. The statistical significance of these correlations, denoted by asterisks, emphasizes the robustness of our findings.

4.4.2 Regression results

Multiple regression with mediation effects was performed to test our hypotheses. Table 5 shows the results according to our model. We used the following step-by-step approach to explore each path:

1. Path *c* - Total Effect of Family Control on Firm Performance. The initial regression results (path c) showed a significant positive relationship between family control (FAM) and firm performance (FP), with a coefficient of 0.090 ($p<0.01$). This indicates that higher family control correlates with better financial performance, a finding consistent with the notion that, driven by the desire to preserve and enhance family wealth, family-controlled firms are likely to implement strategies that optimize firm performance. The significant positive coefficient supports our Hypothesis H2, suggesting that family control, influenced by SEW, is a critical factor in enhancing firm performance.

2. Path *a* – Relationship between Family Control and ESG Engagement. Contrary to expectations, the results for *path a* revealed a positive relationship between family control and ESG engagement, with a coefficient of 3.210 ($p<0.1$). This suggests that increased family control within firms is associated with higher ESG engagement, aligning with Hypothesis H1 and indicating that family members in control may view ESG engagement as a strategic tool that aligns with their long-term goals, including reputation management and sustainable growth.

3. Path *b* - Impact of ESG Engagement on Firm Performance. The results for *path b* yielded a significant positive effect of ESG engagement on firm performance, with a coefficient of 0.002 ($p<0.01$). This finding aligns with Hypothesis H3 and suggests that ESG practices contribute positively to firm performance. It reflects the growing recognition that ESG engagement is not just a compliance or ethical obligation, but a strategic factor that enhances operational efficiency, risk management and stakeholder relations, ultimately benefitting financial performance.

4. *Path c'* – Direct Effect of Family Control on Firm Performance with ESG as a Mediator. In the model for *path c'*, the coefficient for family control on firm performance with ESG as a mediator remained positive and significant (0.085, $p<0.01$), though slightly reduced in comparison with *path c.* This reduction, coupled with the significant positive impact of ESG on firm performance, suggests a partial mediating effect of ESG engagement. It supports Hypothesis H4, indicating that while family control directly influences firm performance, ESG engagement also plays a crucial role in this relationship. The decrease in the coefficient from 0.090 to 0.085 indicates that ESG engagement does not completely mediate the relationship, but significantly contributes to it.

In examining the mediating role of ESG engagement between family control and firm performance, the Sobel & Goodman and bootstrap tests offer compelling insights. As detailed in Table 6, the Sobel test revealed a significant indirect effect of ESG engagement, with an estimate of 0.015 and a z-value of 10.404, significant at $p<0.001$. This high significance level was corroborated by the Aroian and Goodman tests, reinforcing the robustness of the mediation effect. The path coefficients, particularly the a_coefficient (5.822, $p<0.001$) and b_coefficient (0.002, $p<0.001$), were statistically significant, indicating strong relationships in both the family control to ESG engagement and ESG engagement to firm performance pathways. Even after accounting for ESG, although the direct effect of family control on firm performance remained significant (Direct_effect_c': 0.078, $p<0.001$), the total effect (Total_effect_c: 0.074, $p<0.001$) suggests that part of the influence of family control on firm performance is mediated through ESG engagement.

Further substantiation comes from the Bootstrap test results presented in Table 7. With 1,000 replications, the test confirmed the significant indirect effect (0.0151094, $p<0.001$) and direct effect (0.0755823, $p<0.001$) of family control on firm performance, thereby affirming the mediating role of ESG. The total effect (0.0906917, $p<0.001$) reflects the combined impact of direct and indirect effects, with the significant indirect effect underscoring the mediating role of ESG in the relationship between family control and firm performance.

The results align with the growing emphasis on sustainable and responsible business practices in enhancing corporate success. This suggests that ESG practices are not merely family SEW

compliance measures, but strategic tools that enhance FF performance.

4.4.3 Robustness test

Another method was employed to confirm the robustness of the findings. The SA (Size-Age) index was used as an alternative measure to ROA to evaluate the financial performance of Chinese family businesses. This index gauges financial constraints based on firm-level data and market conditions and is a mature and stable indicator for measuring the difficulty of corporate financing (Hadlock & Pierce, 2010). It is a composite measure that captures the essence of a firm's size and age, both of which are critical factors in determining its access to external finance and overall financial health. In China, corporate financing is strictly controlled and supervised by the government, and capital is often restricted. This indicator is therefore a replacement variable with regional characteristics.. The specific calculation is as follows:

$$SA = -0.737 \times Size + 0.043 \times Size^2 - 0.04 \times Age$$

Size: the natural logarithm of the total assets of the firm;

Age: the operating year of the firm = the year of observation - the establishment time.

Meanwhile, ROA was also substituted with Tobin's Q to capture a broader, market-based perspective of financial performance in relation to family businesses' ESG practices. Tobin's Q reflects the market valuation of a firm's future growth potential and aligns with the long-term focus of ESG strategies. This metric offers a forward-looking view, crucial for evaluating the impact of ESG initiatives that typically yield benefits over an extended period. By incorporating Tobin's Q, the aim was to provide a more comprehensive understanding of how ESG practices influence not just current operational efficiency, as captured by ROA, but also the market's perception of a firm's overall value creation potential. The specific calculation is as follows:

$$\text{Tobins Q} = \text{Market Value} / \text{Total Assets}$$

Table 8 presents significant findings that highlight the mediating role of ESG engagement in the relationship between family control and firm performance. The data reveal an estimate of 0.003, accompanied by p-values near 0.053, just below the 0.1 threshold for statistical significance. Although these values are on the cusp of significance, they still emphasize the impactful role of ESG practices in

this dynamic. The a_coefficient (5.822, p<0.001) confirms a strong positive relationship between family control and ESG engagement. The b_coefficient, though slightly less robust than in the ROA model, indicates a positive impact of ESG on firm performance as per the SA index.

Transitioning to Table 9, our robustness test using Tobin's Q further substantiates these findings. The Sobel test results, with an estimate of 0.043 and p-values ranging from 0.024 to 0.026, demonstrate a statistically significant mediation effect. This robustness check, employing Tobin's Q, not only corroborates the findings from Table 8 but also broadens our understanding of the impact of ESG practices within a market valuation framework.

When compared, the mediation effects in Tables 8 and 9 reveal a slightly lower proportion of the total effect mediated in the Tobin's Q model (0.042). This variation suggests that while ESG engagement remains a significant mediator, its influence on market-based valuation metrics like Tobin's Q is nuanced, reflecting the market's perception of future growth potential and investment opportunities.

Collectively, these findings support our hypotheses, particularly emphasizing the role of SEW in driving ESG engagement (H1), the positive correlation between family control and corporate financial performance (H2), the beneficial impact of ESG on firm performance (H3), and the identification of ESG as a positive mediator in this relationship (H4). The Tobin's Q analysis, in harmony with the SA index results, reinforces the narrative that ESG engagement is a strategic choice for family firms, and is beneficial across different financial dimensions, including market valuation and financial constraints.

The robustness test results using the SA index and Tobin's Q (Table 9) not only corroborate the findings but also add depth to our understanding of how ESG practices influence firm performance from a market valuation standpoint. They highlight the strategic significance of ESG in family businesses, underlining its role in enhancing both tangible and intangible assets, which is crucial for long-term sustainability and legacy.

4.5 Discussion and conclusions

In this study, we have undertaken a comprehensive analysis of Chinese-listed family firms from 2016 to 2020 to investigate the interplay between family control, ESG engagement, and financial performance. This research is situated within the broader context of emerging markets, where the

dynamics of family businesses can have profound implications on both local economies and global sustainability efforts.

Our findings reveal a positive impact of family control on firm performance, suggesting that family-centric governance models effectively enhance profitability and operational efficiency in the Chinese business landscape (M. Chen et al., 2021). This trend is rooted in social, emotional and cultural factors, prioritizing the family unit and viewing the family business as a legacy, warranting protection and honour (Yan & Sorenson, 2006). Influenced by the unique prevalence of SEW in Chinese family firms, family members aiming to maintain their family reputation (M. Chen et al., 2021) significantly enhance corporate management's cohesion, thereby improving financial performance (Herrera & de las Heras-Rosas, 2020).

Moreover, this study also highlights the strategic role of ESG engagement in family firms. Driven by the instinct to extend family inheritance and long-term performance, family businesses find a natural alignment with ESG engagement. We have observed that higher family ownership positively influences ESG engagement, motivated by the potential of ESG practices to enhance reputation and reduce systemic risk (Atan, Razali, Said, & Z., 2016). Gómez-Mejía et al. (2011) showed that family firms are particularly averse to any potential damage to their SEW. Despite ESG activities not directly contributing to profits, family firms are inclined to invest in these practices to protect their SEW and mitigate financial risks (Rees & Rodionova, 2015c).

Moreover, this research contributes to the academic discourse by elucidating how SEW influences strategic decisions related to ESG engagement. In line with SEW objectives, family control in Chinese firms demonstrates a pronounced preference for ESG practices, which is integrated into their strategic decision-making processes. This finding extends to other emerging markets, suggesting that similar mechanisms may operate in family firms globally, albeit influenced by local cultural and regulatory contexts.

The study also identifies ESG engagement as a partially mediating factor in the relationship between family control and firm performance. This nuanced understanding of ESG's role reveals the complex dynamics at play in family businesses, especially in how ESG practices mediate the effects of

family governance on financial outcomes. These insights are invaluable for policymakers and business leaders in emerging markets, providing a roadmap for integrating sustainable practices that do not compromise the family's legacy or the firm's financial viability.

Limitations of this study include the focus on Chinese family firms, which may not fully capture the diversity of family business practices across different emerging markets. Future research should explore these relationships in other contexts to determine the generalizability of our findings. Additionally, comparative studies using global ESG metrics could offer deeper insights into how local and international standards impact family firm behaviour.

In conclusion, our study not only advances our understanding of the strategic integration of ESG practices in family-controlled firms but also emphasizes the need for a nuanced approach to studying the interplay between family governance, ESG engagement, and firm performance. By doing so, it enriches the literature on family businesses and sustainable practices, providing a foundation for future research and practical application in the rapidly evolving landscape of emerging markets.

Chapter 5: General Conclusion

5.1 Conclusion

This dissertation embarks from the vantage point of SEW within family businesses, delving into how the investment preferences of family-controlled firms in the ESG domains can bolster their financial performance. Through rigorous empirical analysis using a unique dataset from Chinese listed family companies and utilising HUAZHENG ESG scores, this study dissects the multifaceted relationship between family SEW, ESG engagement, and financial outcomes. Furthermore, it identifies promising avenues for future research and potential gaps in understanding this intricate interplay.

Chapter 2 of this dissertation critically evaluates the relationship between family firms and their engagement in ESG initiatives through a detailed bibliometric analysis of 34 scholarly papers. This comprehensive review was designed to unearth the motivations behind ESG adoption, the methodologies employed in existing research, and the potential conflicts that arise within these paradigms. The primary aim was to delineate the intricate interplay between family firm characteristics, their ESG engagements, and the resultant impacts on business performance. This integration addresses the posed research questions and equips practitioners and researchers with the insights needed to develop effective sustainability strategies tailored to the unique needs of family businesses. The chapter calls for a comprehensive approach to future research, emphasising the need to explore the theoretical and empirical pathways that can illuminate the intricate decision-making processes of family firms regarding ESG. This call to action underscores the burgeoning importance of this research area and its potential to drive significant positive impacts in societal and sustainable development goals.

The findings from this chapter emphasise the critical need to understand the theoretical foundations that underpin family firms' decisions regarding ESG practices. It argues for a more integrated theoretical approach that acknowledges the overlaps and intersections between these frameworks, proposing that such a holistic view could enhance our understanding of how family firms navigate the complex terrain of ESG. This integration is essential for capturing the multifaceted motivations and challenges that influence family firms' ESG strategies, moving beyond simplistic linear models of ESG ratings which

may not fully capture the nuanced realities of family business operations.

Chapter 3 of the dissertation examines ESG practices as a holistic construct, mainly focusing on its mediating role between family control and financial performance in family businesses. The analysis reveals that ESG practices serve as a strategic lever and significantly enhance corporate performance by amplifying the positive effects of family-centric governance. This positive impact is driven by the intrinsic alignment between family businesses' desire to perpetuate their legacy and succeed over the long term and their engagement with ESG practices.

The chapter highlights how ESG engagement, fuelled by family firms' long-term success and legacy aspirations, serves as a catalyst that reinforces family firms' market positions. This dynamic is evidenced by a significant improvement in corporate performance, directly influenced by the degree of family ownership and its commitment to ESG principles. This relationship underscores the strategic importance of ESG practices in enhancing the operational impacts on family-controlled firms, contributing to both sustainability and financial viability. Furthermore, the findings from robustness tests indicate that these relationships are persistent across various financial indicators, though the extent of the mediating effects varies. This variability provides a granular look into how ESG practices influence different aspects of financial performance, highlighting the nuanced ways ESG practices interact with family governance structures to produce varied outcomes.

Chapter 4 thoroughly explores how family firms engage with the different dimensions of ESG criteria and the significant role that institutional investors play in moderating these engagements. The chapter uncovers that family firms demonstrate a robust commitment to environmental initiatives driven by a desire to protect their reputation and align with broader societal expectations for sustainable practices. This commitment, however, is frequently challenged by institutional investors who often evaluate such initiatives through the prism of immediate financial returns rather than their long-term value, leading to potential conflicts.

The analysis extends to examining the governance practices within family firms and how institutional investors perceive these. It highlights a delicate balance between maintaining family interests and

meeting external demands for accountability. Institutional investors' scepticism can sometimes counteract family firms' positive efforts, particularly in governance, where transparency and external accountability are paramount. This complex interplay suggests that the alignment of family firm practices with investor expectations is critical but often fraught with challenges. After narrowed to the manufacturing sector, revealing that the sector-specific context also negatively moderates the relationship between family control and ESG engagement. This suggests that industrial factors also significantly influence how ESG strategies are implemented and perceived in family firms.

5.2 Implications and Contributions

This dissertation significantly advances the academic discourse by deepening our understanding of how FFs engage in ESG initiatives, with a particular emphasis on the role of SEW in shaping these engagements, especially within the unique context of China. Firstly, by integrating theories (such as agency theory, stakeholder theory, and SEW perspectives), this work develops a novel, comprehensive theoretical framework that captures the complex motivations driving FFs' ESG strategies. This approach enriches our understanding of ESG practices in FFs and illustrates how overlapping theoretical insights can enhance this understanding.

Furthermore, this dissertation details the variability of ESG engagement across environmental, social, and governance dimensions among FFs. It specifically highlights the positive association between FFs and environmental and governance initiatives, underscoring the consistent strategic integration of SEW. This finding challenges and extends existing theories by demonstrating a natural alignment of SEW, where SEW not only influences FFs' decision-making but also enhances their capacity to implement effective ESG strategies. This contributes to filling a gap in the literature, particularly in environments influenced by deep cultural and institutional factors such as China.

Additionally, the complex interactions and potential conflicts arising when FFs engage in ESG, influenced by institutional investors, further enrich our understanding of the constraints and opportunities in FF operations. This exploration expands the role of SEW within ownership structures. The dissertation systematically addresses inconsistencies in prior research regarding ESG performance

and ownership structure, offering a new perspective that integrates SEW with ESG considerations.

By exploring the environmental, social, and governance dimensions within Chinese FFs, this study reveals how SEW motivates ESG engagement and impacts these firms' effectiveness in executing their sustainability strategies. This comprehensive examination provides valuable insights into the dynamic interplay between SEW, ESG engagement, and strategic execution in FFs, advancing theoretical knowledge and practical applications in FB studies.

From a practical perspective, this study offers actionable insights for FB institutional investors and policymakers, facilitating a deeper understanding of the effective integration of ESG practices. For FF, the findings underscore the importance of leveraging their unique SEW to enhance ESG initiatives, thereby improving financial performance and supporting long-term sustainability goals. The research demonstrates that integrating ESG strategies with inherent socio-emotional values enhances sustainability outcomes and boosts financial performance. Due to their deep-rooted values and emotional bonds, FB are uniquely positioned to implement ESG initiatives that align with their business goals and broader societal expectations. This strategic alignment can significantly enhance their market reputation and operational efficiency, offering a competitive edge in sustainability.

For institutional investors, the research highlights the complexities of investing in FF that prioritize SEW. It recommends a balanced investment strategy that respects the core values and long-term objectives of FF while ensuring rigorous adherence to ESG standards. This approach is crucial for fostering long-term partnerships that support sustainable growth and mitigate potential conflicts, thus maintaining a profitable and ethical investment environment.

Furthermore, this study provides policymakers with insights into the unique challenges and opportunities that FF encounter in their adoption of ESG practices. It advocates for the development of policy frameworks that acknowledge the diversity of FF structures and their distinct responses to ESG demands. Specifically, the research calls for policies that facilitate the integration of SEW with ESG mandates, ensuring that FF can pursue sustainability without compromising their socio-emotional imperatives. Recommended policies include offering incentives for ESG practices that align with FB

values, creating educational programs to raise awareness about the benefits of ESG, and developing support systems that assist FF in navigating the complex landscape of sustainable practices.

These policies should aim to ensure that FB can remain competitive and sustainable, adhering to their foundational values while meeting evolving environmental and social standards. By providing incentives that resonate with FF's values and addressing their unique challenges, policymakers can help these enterprises contribute positively to sustainable development goals without facing trade-offs that could hinder their long-term viability.

5.3 Limitations and Further and Research Directions

While making substantial contributions to the understanding of ESG engagement within FBs, particularly in the context of China, this study acknowledges certain limitations that pave the way for future research directions. A primary limitation is our reliance on ESG scores from a single database, HUAZHENG, which, despite being one of the most authoritative ESG rating agencies in China, suggests the potential for further validation using scores from other institutions, such as Bloomberg or Reuters. Additionally, the exclusively Chinese context of our data, with its unique political, economic, and cultural landscape, may limit the generalizability of our findings. Future research could broaden this scope by incorporating data from diverse geographical settings, including East Asia and Western Europe, as well as both developed and developing countries, to enhance the comparability and applicability of the findings.

Moreover, our dataset predominantly comprises listed companies, which are inherently more exposed to regulatory mandates for information disclosure, audit reviews, and oversight by investment institutions. This method may skew the propensity for ESG engagement within our sample, suggesting the value of extending future investigations to include startups and small to medium-sized FBs to examine potential variances in ESG practices.

Although our study benefits from a chapter dedicated to bibliometric analysis and systematic review,

some pertinent studies or data might have been overlooked. Future research endeavours could employ meta-analysis to consolidate findings across the family business and ESG research spectrum, thereby capturing overarching trends and insights more effectively.

Furthermore, it would be insightful for subsequent studies to compare family-owned firms with their non-family counterparts to delineate any distinctive ESG behaviours and performance differences and investigate the underlying reasons for such disparities. Additionally, augmenting the quantitative findings with qualitative research could unveil nuanced, potentially unobserved characteristics and insights, enriching the understanding of ESG engagement's complexities within the family business sector.

Addressing these limitations through expanded empirical and theoretical investigations will fortify the existing knowledge base and uncover new dimensions of FBs' sustainability practices, offering a more holistic and nuanced perspective on the intersection of SEW, ESG, and corporate performance.

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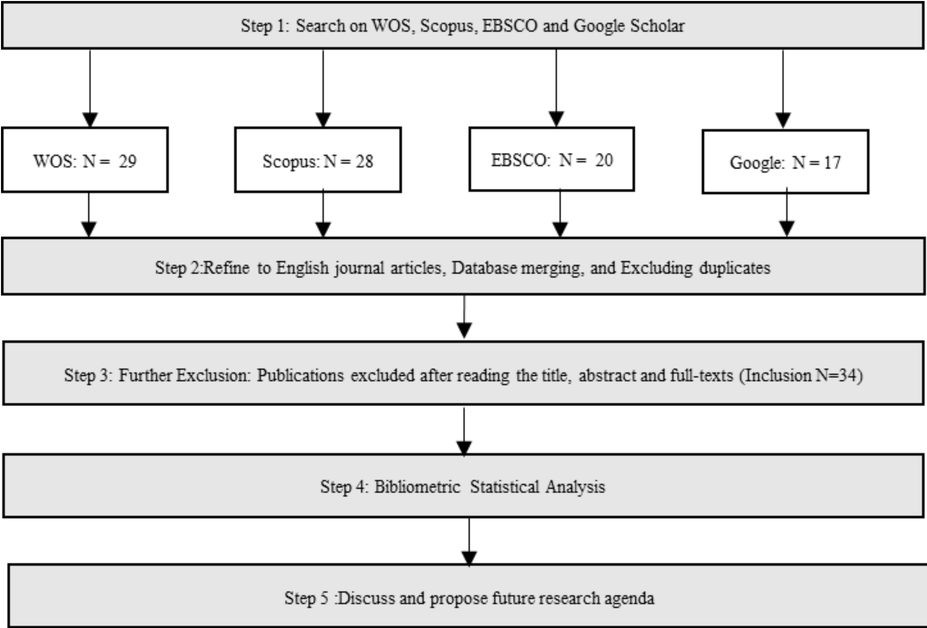
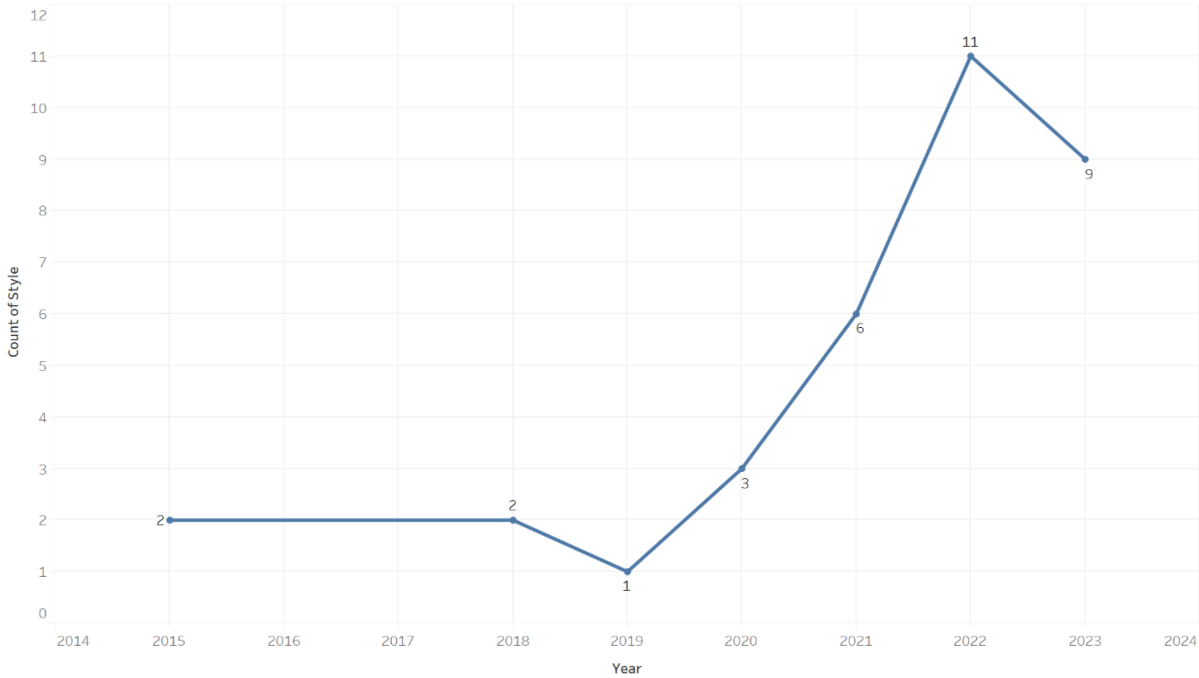
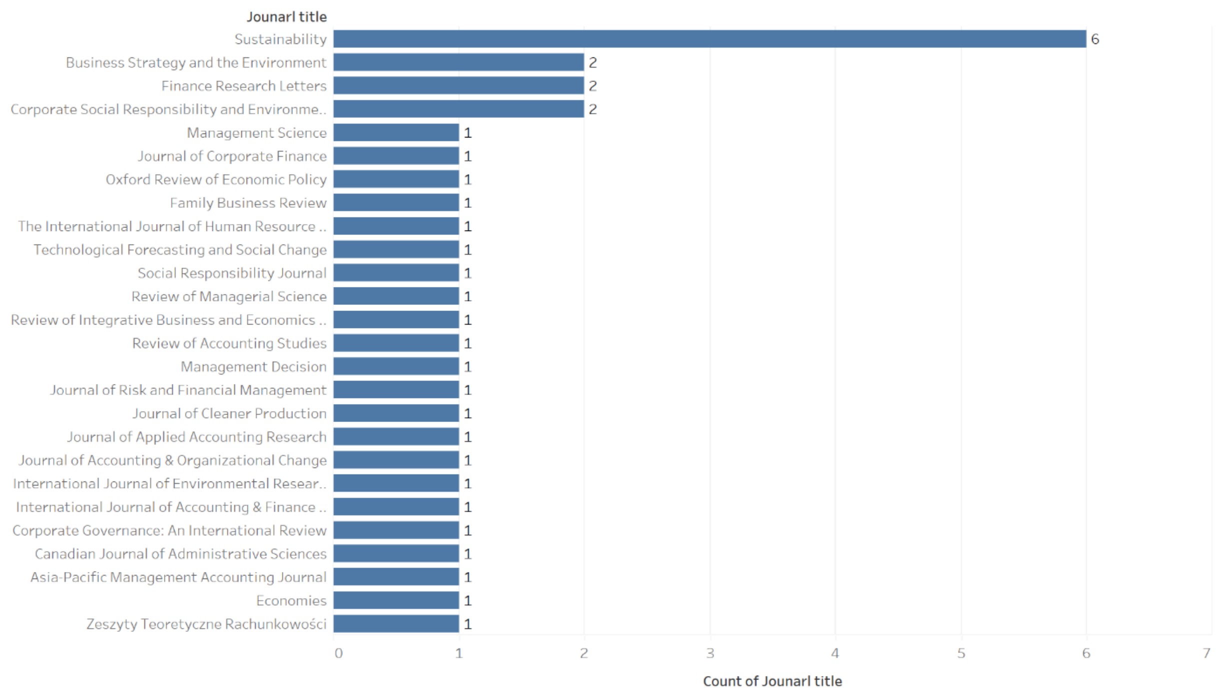
Appendix A: Tables and figures for Chapter 2



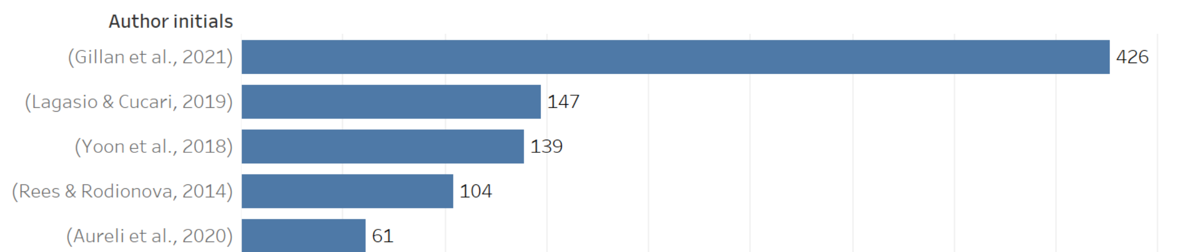
(Figure 1: Data collection and research procedures)



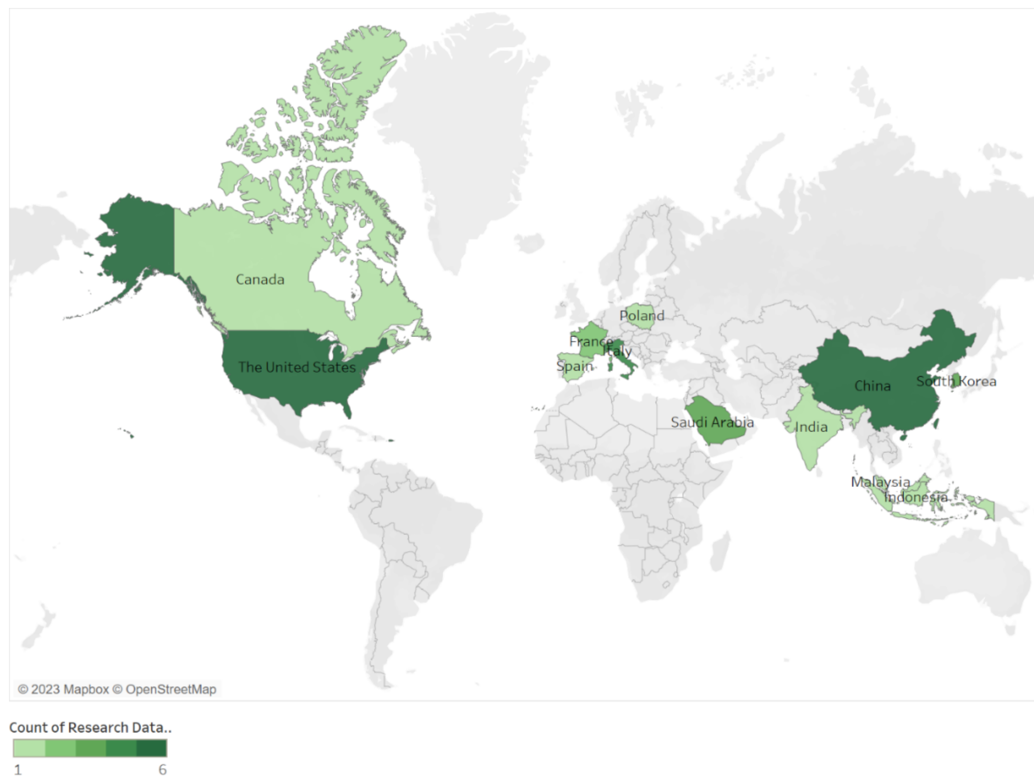
(Figure 2: Publication Timeline)



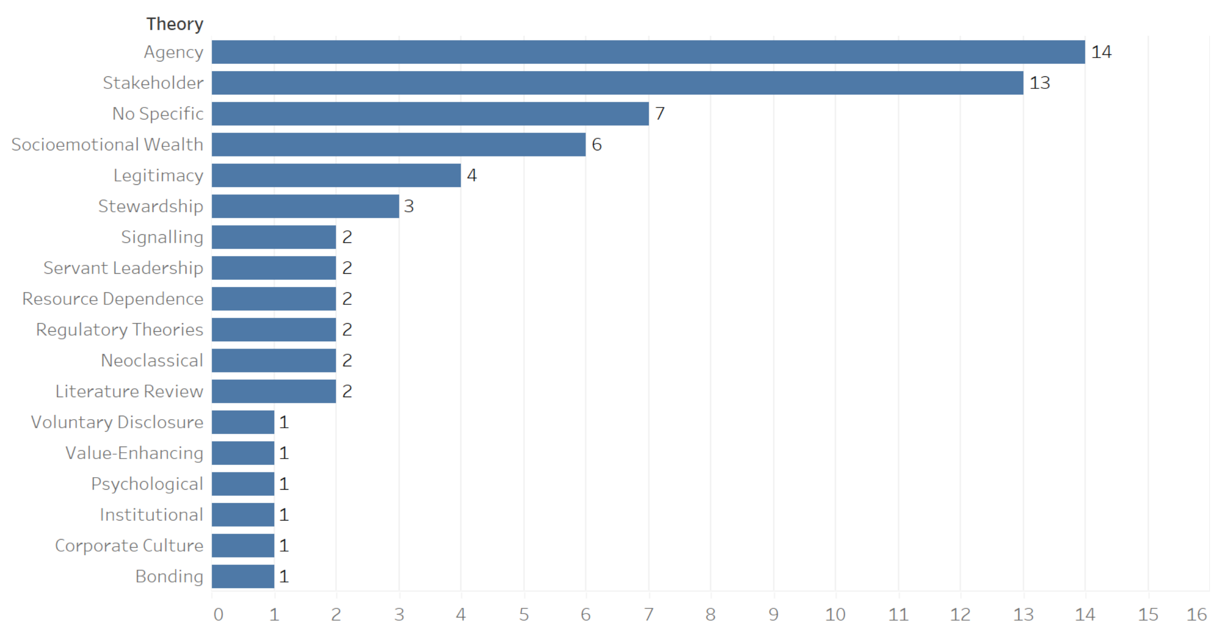
(Figure 3: Predominant Contributing Journals)



(Figure 4: Citation Ranking)



(Figure 5: Geographical distribution of research data)



(Figure 6: Theoretical Statistics)

(Figure 7: Keywords cluster)

Tables:

Research Direction	Key Themes	Example Research Questions
Scale and ESG in family firms	-FF's lifecycle stage and ESG engagement -Differences between start-ups and established enterprises	Q1: How do ESG implementation strategies differ between nascent start-ups and established publicly-listed family businesses? Q2 Which key objective and subjective drivers influence adopting ESG practices within small to medium-sized family enterprises?
Stakeholder impact on ESG in family firms	-Role of generational shifts on stakeholder engagement -Differences in stakeholder prioritization across generations	Q3: In what ways do non-family shareholders shape the ESG strategic preferences of family businesses? Q4: Do local communities and governments exhibit a preference for family businesses that are actively engaged in ESG initiatives?
Regional impact on family firms and ESG	-Role of regional economic development in ESG strategies -Interplay between cultural values and political landscape	Q5:To what extent do governmental regulations shape family businesses' inclinations towards ESG? Q6: How do institutional strengths and weaknesses in different regions influence family firms' ESG disclosure and performance? Q7: How does the economic development level of a region influence ESG strategies in family businesses?
ESG practices and family business performance	-The long-term impact of ESG initiatives on family business legacy -The family business' financial performance after participating in ESG	Q8: Is the impact of ESG on family businesses' financial performance predominantly positive or negative? Q9: ESG Long-term and short-term effects of ESG on family businesses

(Table 1: Future research directions and sample questions)

Table of article retrieval details

Authors	Title	Theory	Year
Gillan et al., 2021	Firms and social responsibility: A review of ESG and CSR research in corporate finance	Literature Review	2021
Lagasio & Cucari, 2019	Corporate governance and environmental social governance disclosure: A meta-analytical review	Literature Review	2019
Yoon et al., 2018	Does ESG Performance Enhance Firm Value? Evidence from Korea	Value-enhancing	2018
Rees & Rodionova, 2014	The Influence of Family Ownership on Corporate Social Responsibility: An International Analysis of Publicly Listed Companies	Agency and socioemotional wealth	2015
Aureli et al., 2020	Nonfinancial reporting regulation and challenges in sustainability disclosure and corporate governance practices	Institutional and resource dependence	2020
Nekhili et al., 2021	ESG performance and market value: the moderating role of employee board representation	Stewardship	2021
Gjergji et al., 2021	The effects of environmental, social and governance disclosure on the cost of capital in small and medium enterprises: The role of family business status	Agency, stakeholder and socioemotional wealth	2021
Singal & Gerde, 2015	Is Diversity Management Related to Financial Performance in Family Firms?	Not specified	2015
Bamahros et al., 2022	Corporate Governance Mechanisms and ESG Reporting: Evidence from the Saudi Stock Market	Stakeholder, legitimacy and signalling	2022
Alazzani et al., 2021	ESG Reporting and Analysts' Recommendations in GCC: The Moderation Role of Royal Family Directors	Servant leadership	2021
Dikolli et al., 2022	Walk the talk: ESG mutual fund voting on shareholder proposals	Not specified	2022

Yoon et al., 2021	The Effect of ESG Performance on Tax Avoidance—Evidence from Korea	Corporate culture	2021
Chakraborty et al., 2019	Corporate governance and risk in cross-listed and Canadian only companies	Agency and bonding	2018
Johnstone-Louis et al., 2020	Business in times of crisis	Not specified	2020
Gavana et al., 2022	Related Party Transactions and Earnings Management: The Moderating Effect of ESG Performance	Agency and stakeholder	2022
Borralho et al., 2022	Environmental, social and governance disclosure's impacts on earnings management: Family versus non-family firms	Stakeholder and agency	2022
Tenuta & Cambrea, 2022	Corporate social responsibility and corporate financial performance: The role of executive directors in family firms	Agency	2022
Wu et al., 2023	Clustered institutional investors, shared ESG preferences and low-carbon innovation in family firm	Stakeholder	2023
Wan Mohammad et al., 2022	Women on boards, firms' competitive advantage and its effect on ESG disclosure in Malaysia	Stakeholder, legitimacy, signalling and psychological	2022
Sharma et al., 2020	Corporate sustainability and fair market value: a study of Indian family versus non-family firms	Stakeholder, Socioemotional wealth	2020
Chung et al., 2023	Determinants of ESG disclosure among listed firms under voluntary and mandatory ESG disclosure regimes in Hong Kong	Legitimacy, agency and regulatory theories	2023
Fuadah et al., 2022	The Ownership Structure, and the Environmental, Social and Governance (ESG) Disclosure, Firm Value and Firm Performance: The Audit Committee as Moderating Variable	Legitimacy, agency, regulatory theories and stakeholder	2022
Wasiuzzaman & Subramaniam, 2023	Board gender diversity and environmental, social and governance (ESG) disclosure: Is it different for developed and developing	Agency and stakeholder	2023

	nations?		
Hsu & Chen, 2023	Family firms' social responsibility: Exercise of family control versus family dynasty succession	Stakeholder and socioemotional wealth	2023
Banerjee, 2021	FAMILY FIRMS: COVID-19 CHALLENGES AND FUTURE OUTLOOK	Not specified	2021
Arayssi & Jizi, 2023	Royal family board directors and the level of ESG disclosures in GCC listed firms	Stewardship and servant leader	2023
Bourveau et al., 2022	The Capital Market Consequences of Tenure-Based Voting Rights: Evidence from the Florange Act	Not specified	2022
Espinosa-Méndez et al., 2023	The Impact of ESG Performance on the Value of Family Firms: The Moderating Role of Financial Constraints and Agency Problems	Neoclassical, stakeholder, stewardship and agency	2023
Hendratama & Huang, 2022	Corporate Social Responsibility of Family-controlled Firms in Taiwan	Socioemotional wealth and agency	2022
Sun et al., 2023	Family ownership and control as drivers for environmental, Social and Governance in family firms	Socioemotional wealth	2023
(Martyniuk & Gostkowska-Drzewicka, 2022)	Non-financial information reporting of Polish family and non-family companies. A comparative analysis	Socioemotional wealth	2022
(Kang et al., 2022)	The Association between Outside Directors' Compensation and ESG Performance: Evidence from Korean Firms	Agency and resource dependence	2022
(Kong, 2023)	The impact of ESG performance on debt financing costs: Evidence from Chinese family business	Not specified	2023
(Geng et al., 2023)	The Theoretical Lineage and Evolutionary Logic of Research on the Environmental Behavior of Family Firms: A Literature Review	Agency	2023

Appendix B: Tables and figures for Chapter 3

Table 1: ESG rating and scoring details

<table>
<tr><th>3 Pillars</th><th>14 Themes</th><th>26 key indicators</th><th>Underlying indicators</th></tr>
<tr><td rowspan="5">Environment (E)</td><td>management system</td><td>management system</td><td rowspan="14">100+</td></tr>
<tr><td>green operation goal</td><td>low carbon plan
goal green purchase plan</td></tr>
<tr><td>eco product</td><td>carbon footprint
economic product and service</td></tr>
<tr><td>external identification</td><td>external identification</td></tr>
<tr><td>illegal event</td><td>illegal event</td></tr>
<tr><td rowspan="4">Social (S)</td><td>institution system</td><td>CSR quality</td></tr>
<tr><td>health and safety</td><td>accident reduction plan
accidents
accidents tendency</td></tr>
<tr><td>social contribution</td><td>donations
employee growth rate
poverty alleviation</td></tr>
<tr><td>external identification</td><td>external identification</td></tr>
<tr><td rowspan="5">Governance (G)</td><td>institution system</td><td>ESG self-supervision</td></tr>
<tr><td>governance structure</td><td>related transition
board independence</td></tr>
<tr><td>operation activity</td><td>tax transparency</td></tr>
<tr><td>operation risk</td><td>asset quality
financial credibility
short debt risk
stake pledge risk
information disclosure quality</td></tr>
<tr><td>punishment</td><td>company and its subsidiary
punishment
executives’ illegal events</td></tr>
</table>

Table 2: Variable Definition

Variables	Acronym	Variable measurement
Dependent variables		
Environment	E	Hua Zheng Environment rating for each company
Social scores	S	Hua Zheng Social scores for each company
Governance scores	G	Hua Zheng Governance rating for each company
Independent variable		
Family shareholding	Fam	The proportion of control of listed companies owned by actual family controllers
Moderator variable		
Institutional ownership	Investor	The proportion of control of listed companies owned by actual Institutional investors
Control variables		
Firm size	Fsize	The natural logarithm of the book value of total assets (Yuan)
Firm age	FirmAge	Company-established time minus one
Return on Equity	ROE	Net Income / Shareholders' Equity
Leverage rate	lever	The ratio of total debt to total assets
Book-to-market ratio	BM	Book value / total market value
Management Fee	Mfee	Management expenses/main business income
Audit Reports	Opinion	If the annual report and audit report were presented is 1; otherwise, 0
Top 10	TOP10 holdings	The sum of the top 10 holdings

Table 3: Pearson test

	E score	S score	G score	fam	investor	ListAge	Fsize	lever	ROE	BM	Mfee	Opinion	Top10
E score	1												
S score	0.299***	1											
G score	0.038***	0.009	1										
fam	-0.031***	0.009	0.190***	1									
investor	-0.048***	-0.082***	0.024**	0.189***	1								
ListAge	0.062***	-0.022**	-0.326***	-0.315***	0.108***	1							
Fsize	0.167***	0.178***	-0.162***	0.011	0.205***	0.440***	1						
lever	0.092***	0.089***	-0.364***	-0.101***	0.123***	0.395***	0.500***	1					
ROE	0.024**	0.105***	0.306***	0.211***	0.115***	-0.101***	0.101***	-0.098***	1				
BM	0.094***	0.116***	-0.217***	-0.067***	0.029***	0.355***	0.609***	0.536***	-0.135***	1			
Mfee	-0.148***	-0.128***	-0.001	-0.093***	-0.066***	-0.016	-0.335***	-0.239***	-0.187***	-0.264***	1		
Opinion	0.035***	0.061***	0.241***	0.075***	0.011	-0.133***	0.027***	-0.163***	0.197***	-0.064***	-0.125***	1	
Top10	-0.020**	0.037***	0.204***	0.666***	0.206***	-0.521***	-0.061***	-0.207***	0.189***	-0.181***	-0.095***	0.124***	1

t-statistics in parentheses

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

Table 4: Descriptive statistics

Variable	n	Mean	S.D.	Min	0.250	Mdn	0.750	Max
E score	9739	59.73	7.590	33.91	54.24	59.56	64.73	93.34
S score	9739	73.78	10.24	0	67.52	74.05	80.38	100
G score	9739	78.70	7.970	22.40	75.64	80.54	83.91	97.33
fam	9752	0.470	0.150	0.200	0.340	0.460	0.580	1
investor	9712	0.330	0.270	0	0.0700	0.280	0.560	0.80
ListAge	9765	1.550	0.890	0	1.100	1.610	2.200	3.400
Fsize	9765	21.72	1.060	16.12	20.95	21.59	22.31	28.61
lever	9734	0.370	0.200	0.0400	0.210	0.350	0.500	0.890
ROE	9693	0.0800	0.100	-0.540	0.0400	0.0800	0.120	0.340
BM	9765	0.690	0.620	0.0700	0.310	0.510	0.840	3.980
Mfee	9765	0.0900	0.0600	0.0100	0.0500	0.0800	0.110	0.410
Opinion	9765	0.970	0.160	0	1	1	1	1
Top10	9765	0.630	0.130	0.210	0.550	0.660	0.740	0.960

Table 5: Instrumental variables test

ESG Component	Test Type	Statistic	Value	P-value	Critical Values (Stock-Yogo)	Conclusion
Environmental (E score)	Under identification	Kleibergen-Paap rk LM statistic	26.765	P<0.01	-	IV is relevant; model is correctly identified.
	Weak Identification	Cragg-Donald Wald F statistic	37.993	-	10%: 16.38, 15%: 8.96, 20%: 6.66, 25%: 5.53	IV is not weak; exceeds critical values.
		Kleibergen-Paap rk Wald F statistic	26.974	-	-	Confirms IV strength.
Social (S score)	Under identification	Kleibergen-Paap rk LM statistic	26.765	P<0.01	-	IV is relevant; model is correctly identified.
	Weak Identification	Cragg-Donald Wald F statistic	37.993	-	10%: 16.38, 15%: 8.96, 20%: 6.66, 25%: 5.53	IV is not weak; exceeds critical values.
		Kleibergen-Paap rk Wald F statistic	26.974	-	-	Confirms IV strength.
Governance (G score)	Under identification	Kleibergen-Paap rk LM statistic	26.765	P<0.01	-	IV is relevant; model is correctly identified.
	Weak Identification	Cragg-Donald Wald F statistic	37.993	-	10%: 16.38, 15%: 8.96, 20%: 6.66, 25%: 5.53	IV is not weak; exceeds critical values.
		Kleibergen-Paap rk Wald F statistic	26.974	-	-	Confirms IV strength.

Table 6: 2SLS Panel regression （From 2009-2020）

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	E	S	G	E	S	G
fam	32.526**	10.596	80.914***	36.543**	14.082	92.040***
	(2.24)	(0.45)	(3.24)	(2.22)	(0.53)	(3.20)
investor	-0.927*	-0.473	-1.848**	1.191	1.365	4.020**
	(-1.93)	(-0.68)	(-2.54)	(1.16)	(0.83)	(2.31)
c_fam_ins				-18.927**	-16.426	-52.418***
				(-2.13)	(-1.18)	(-3.39)
ListAge	-0.969*	-0.681	-3.821***	-1.224*	-0.902	-4.527***
	(-1.83)	(-0.79)	(-4.24)	(-1.90)	(-0.86)	(-4.04)
Fsize	1.243***	1.564***	0.854***	1.183***	1.512***	0.688**
	(6.26)	(5.72)	(2.76)	(5.96)	(5.53)	(2.21)
lever	0.168	2.894***	-11.423***	0.227	2.946***	-11.258***
	(0.25)	(2.82)	(-10.39)	(0.34)	(2.87)	(-9.79)
ROE	-3.219**	3.837*	4.106	-3.184**	3.868*	4.204*
	(-2.23)	(1.72)	(1.63)	(-2.20)	(1.74)	(1.65)
BM	-1.217***	-1.552***	-1.190*	-1.160***	-1.502***	-1.031*
	(-3.24)	(-2.83)	(-1.95)	(-3.24)	(-2.88)	(-1.76)
Mfee	-1.656	-4.857*	-11.481***	-1.472	-4.698*	-10.973***
	(-0.97)	(-1.90)	(-3.75)	(-0.85)	(-1.86)	(-3.50)
Opinion	1.313**	1.028	4.826***	1.287**	1.004	4.751***
	(2.53)	(1.36)	(5.51)	(2.43)	(1.33)	(5.23)
Top10	-11.386**	-4.866	-28.889***	-14.293**	-7.389	-36.941***
	(-2.18)	(-0.59)	(-3.23)	(-2.17)	(-0.72)	(-3.21)
Observations	9,498	9,498	9,498	9,498	9,498	9,498
R-squared	-0.045	0.066	-0.110	-0.074	0.062	-0.189
Number of id	1,561	1,561	1,561	1,561	1,561	1,561
Company FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES

Used Standard robust errors

t-statistics in parentheses

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

VARIABLES	First test E	First test S	First test G	Second test E	Second test S	Second test G
fam	37.374**	15.489	84.715***	123.916*	61.311	274.871**
	-2.27	-0.67	-3.1	-1.89	-0.7	-2.25
investor	1.043	1.497	3.261**	2.041	1.875	5.710*
	-1.14	-1.22	-2.2	-1.18	-0.82	-1.82
c_fam_ins	-18.003**	-13.764	-44.951***	-27.143*	-20.73	-67.275**
	(-2.22)	(-1.26)	(-3.36)	(-1.82)	(-1.05)	(-2.43)
manufacturing				-2.907	-0.604	-7.412
				(-1.22)	(-0.22)	(-1.55)
fam_manufacturing				-104.914*	-56.925	-228.023**
				(-1.89)	(-0.77)	(-2.21)
ListAge	-1.417**	-1.138	-4.435***	-1.212	-0.898	-4.302***
	(-2.04)	(-1.16)	(-3.88)	(-1.56)	(-0.85)	(-2.98)
Fsize	1.077***	1.379***	0.606*	1.160***	1.483***	0.785*
	-4.71	-4.54	-1.75	-4.41	-5.24	-1.67
lever	1.239	3.632***	-9.735***	-0.915	2.328	-14.254***
	-1.62	-3.59	(-7.87)	(-0.79)	-1.57	(-6.53)
ROE	-3.586**	4.953**	3.81	-3.758*	3.473	3.494
	(-2.14)	-2.17	-1.35	(-1.86)	-1.33	-0.93
BM	-1.599***	-1.586**	-1.847**	-0.323	-1.016**	0.989*
	(-3.53)	(-2.49)	(-2.55)	(-1.08)	(-2.18)	-1.79
Mfee	-2.474	-5.561*	-13.405***	-1.627	-4.763*	-9.542**
	(-1.23)	(-1.88)	(-3.75)	(-0.73)	(-1.81)	(-2.19)
Opinion	2.122***	0.975	5.420***	0.434	0.551	2.670**
	-3.38	-1.16	-5.33	-0.64	-0.7	-2.08
Top10	-13.738**	-5.41	-32.370***	-17.270*	-9.063	-40.388**
	(-2.27)	(-0.65)	(-3.24)	(-1.85)	(-0.73)	(-2.34)
Observations	7,821	7,821	7,821	9,498	9,498	9,498
R-squared	-0.066	0.081	-0.111	-0.568	0.001	-1.143
Number of id	1,301	1,301	1,301	1,561	1,561	1,561
Company FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES

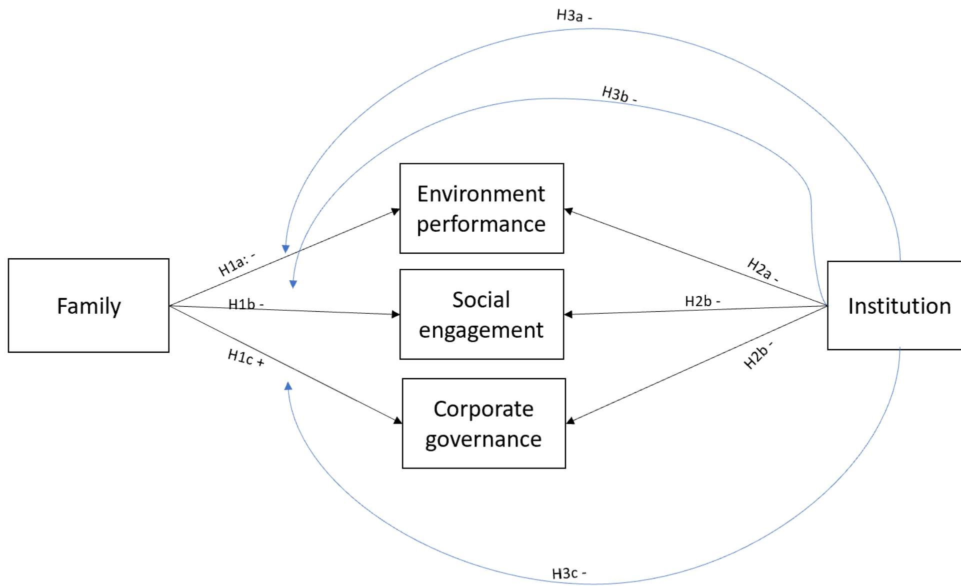
Table 7: Robustness Test (manufacturing industry)

Used Standard robust errors

t-statistics in parentheses

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

Figure 1: Hypotheses map



Appendix C: Tables and figures for Chapter 4

Table 1: Sample Selection Process

	Observations
Preliminary sample size (2016-2020)	7,135
Observations in the financial sector	53
Observations listed less than one year or observations with incomplete information on shareholdings / corporate governance	337
Outliers	55
Full sample size	6,710

Table 2: HuaZheng Chinese ESG Framework Indicators

Pillars	Theme	Key Indicators
Environment	Environmental Management System	Environmental Management System
	Green Operation Objectives	Low-Carbon Plans or Objectives Green Procurement Policies or Plans
	Green Products	Carbon Footprint Sustainable Products or Services
	External Environmental Certification	Products or Company Environmental Certification
	Environmental Non-compliance Events	Environmental Non-compliance and Illegal Events
Social	Institutional System	Quality of Social Responsibility Reporting
	Health and Safety	Objectives or Plans to Reduce Safety Incidents Negative Operational Events Trends in Operational Accidents
	Social Contribution	Donations Related to Social Responsibility Employee Growth Rate Poverty Alleviation
	Quality Management	Products or Company Quality Certification
Governance	Institutional Construction	Corporate Self-ESG Supervision
	Governance Structure	Related Transactions Proportion of Directors and Supervisors
	Business Activities	Tax Transparency
	Operational Risk	Asset Quality Overall Financial Credibility Short-term Solvency Risk Proportion of Major Shareholders' Pledges Quality of Information Disclosure
	External Sanctions	Exchange Sanctions, Securities Regulatory Commission Penalties, Disappearances, and Investigations Listed Company Executives' Violations

Table 3: Definition of variables

Variables	Acronym	Variable measurement
Dependent variables		
Return on Assets	ROA	The ratio of earnings before interest and taxes over the book value of average total assets
SA index*	SA	Measuring Financial Constraints
Mediator variable		
ESG score	ESG	Hua Zheng ESG scores for each company, higher score means a higher engagement
Independent variable		
Family shareholding	FAM	The proportion of control of listed companies owned by actual family controllers
Control variables		
Firm size	Fsize	The natural logarithm of the book value of total assets (Yuan)
Leverage	LEV	The ratio of total debt to total assets
Firm age	Firmage	Natural logarithm of the company's establishment year + 1
Fixed asset ratio	FIXED	The ratio of fixed assets to total assets
Growth rate	Growth	The ratio of the current year's operating income to the previous year's income minus one
Turnover Rate	Dturn	The frequency of stock turnover in the market over a year
Year	year	Year
Industry	IND	China 2012 Industry Classification, exclude the financial sector

*SA included for robustness testing; formula for calculation in main tex Table 3: Statistical description

Table 4: Statistical description

Variable	n	Mean	S.D.	Min	0.25	Mdn	0.75	Max
ROA	6710	0.07	0.06	-0.08	0.04	0.06	0.1	0.2
SA*	6710	-3.82	0.22	-5.60	-3.96	-3.80	-3.66	-3.05
FAM	6698	0.46	0.15	0.22	0.34	0.45	0.58	0.76
ESGt+1	6702	72.88	6.09	41.67	69.55	73.49	77.03	89.81
lever	6710	0.37	0.18	0.07	0.22	0.35	0.5	0.78
Fsize	6710	21.88	0.99	20.18	21.12	21.77	22.5	24.2
Cashflow	6710	0.06	0.08	-0.44	0.02	0.06	0.09	2.22
Dturn	6710	-0.21	0.54	-1.83	-0.36	-0.04	0.05	0.77
FirmAge	6710	2.91	0.28	1.95	2.71	2.94	3.14	3.37
Growth	6593	0.23	0.43	-0.43	-0.01	0.13	0.34	1.92
FIXED	6710	0.19	0.12	0	0.1	0.18	0.27	0.87

Table 5: Variance Inflation Factor and Pearson Correlation Matrix

Variable	VIF	ROA	SA	FAM	ESG_{t+1}	lever	Fsize	Dturn	FirmAge	Growth	FIXED
ROA		1									
SA	\	0.066***	1								
FAM	1.04	0.264***	0.098***	1							
ESG_{t+1}	1.08	0.311***	0.068***	0.156***	1						
lever	1.43	-0.292***	-0.073***	-0.089***	-0.148***	1					
Fsize	1.44	-0.021*	-0.168***	-0.079***	0.035***	0.517***	1				
Dturn	1.06	-0.060***	-0.125***	-0.120***	-0.068***	0.093***	0.173***	1			
FirmAge	1.03	-0.058***	-0.856***	-0.061***	-0.068***	0.079***	0.106***	0.120***	1		
Growth	1.03	-0.025**	0.023*	0.020*	0.030**	0.042***	0.025**	-0.0170	0.00900	1	
FIXED	1.03	-0.040***	-0.044***	-0.040***	-0.052***	0.031**	0.029**	0.0120	0.031**	-0.163***	1
Mean VIF	1.14										

Table 6 : Regression model results

	(path c)	(path c')	(path a)	(path b)
VARIABLES	FP	FP	ESG_{t+1}	FP
FAM	0.090***	0.085***	3.210*	
	-5.06	-4.82	-1.78	
ESG_{t+1}		0.002***		0.002***
		-8.36		-8.5
lever	-0.148***	-0.139***	-5.873***	-0.135***
	(-13.25)	(-12.63)	(-6.26)	(-12.20)
Fsize	0.026***	0.023***	2.031***	0.023***
	-8.34	-7.41	-7.17	-7.33
Dturn	0.003***	0.003***	-0.083	0.003***
	-3.38	-3.58	(-0.99)	-3.42
FirmAge	0.017	0.018	-0.463	0.026*
	-1.23	-1.35	(-0.33)	-1.9
Growth	0.001	0.001	0.368*	0.001
	-0.59	-0.31	-1.88	-0.35
FIXED	-0.070***	-0.066***	-2.822**	-0.064***
	(-5.41)	(-5.22)	(-2.07)	(-5.09)
Constant	-0.487***	-0.540***	34.130***	-0.528***
	(-5.57)	(-6.38)	-4.32	(-6.39)
Industry * Year	YES	YES	YES	YES
Robust Error				
	YES	YES	YES	YES
Observations	6,581	6,573	6,573	6,585
R-squared	0.175	0.195	0.081	0.187
Number of firms	1,811	1,808	1,808	1,811

Robust t-statistics in parentheses

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

Table 7: Sobel&Goodman test -- Direct and indirect effects （ROA）

Test Type	Estimate (Est)	Standard Error (Std_err)	z-Value (z)	P-value (P>|z|)
Sobel	0.015	0.001	10.404	< 0.001
Aroian	0.015	0.001	10.396	< 0.001
Goodman	0.015	0.001	10.411	< 0.001

Effect Type	Estimate (Est)	Standard Error (Std_err)	z-Value (z)	P-value (P>|z|)
a_coefficient	5.822	0.504	10.622	< 0.001
b_coefficient	0.002	0	22.401	< 0.001
Indirect_effect_aXb	0.012	0.001	9.598	< 0.001
Direct_effect_c'	0.078	0.004	15.46	< 0.001
Total_effect_c	0.074	0.004	17.871	< 0.001

Proportion of total effect mediated:	0.158
Ratio of indirect to direct effect:	0.188
Ratio of total to direct effect:	1.188

Table 8: Bootstrap test

Bootstrap results				Number of obs =	6,573
				Replications =	1,000

	Observed Coefficient	Std. Err.	z-Value	P>z	[95% Conf. Interval] Lower	[95% Conf. Interval] Upper
bs 1: r(ind eff)	0.0151094	0.0014975	10.09	0	0 .0121743	0.0180445
bs 2: r(dir eff)	0.0755823	0.0044823	16.86	0	0.0667971	0.0843675
bs 3: r(tot eff)	0.0906917	0.0046117	19.67	0	0.816530	0.0997304

Table 9： Robustness of Sobel test (SA)

Test Type	Estimate (Est)	Standard Error (Std_err)	z-Value	P-value (P>|z|)
Sobel	0.003	0.001	1.879	0.053
Aroian	0.003	0.001	1.871	0.053
Goodman	0.003	0.001	1.887	0.052

Effect Type	Estimate (Est)	Standard Error (Std_err)	z-Value (z)	P-value (P>|z|)
a_coefficient	5.822	0.502	10.613	< 0.001
b_coefficient	0.002	0.000	1.909	0.049
Indirect_effect_aXb	0.002	0.001	1.879	0.053
Direct_effect_c'	0.040	0.008	4.876	< 0.001
Total_effect_c	0.043	0.008	5.148	< 0.001

Proportion of total effect mediated:	0.059
Ratio of indirect to direct effect:	0.063
Ratio of total to direct effect:	1.063

Table 10: Robustness of Sobel test (Tobins Q)

Test Type	Estimate (Est)	Standard Error (Std_err)	z-Value	P-value (P>|z|)
Sobel	0.043	0.014	3.014	0.025
Aroian	0.043	0.014	3.001	0.026
Goodman	0.043	0.014	3.026	0.024

Effect Type	Estimate (Est)	Standard Error (Std_err)	z-Value (z)	P-value (P>|z|)
a_coefficient	5.314	0.502	10.200	< 0.001
b_coefficient	0.008	0.002	3.155	0.001
Indirect_effect_aXb	0.043	0.014	3.014	0.002
Direct_effect_c'	0.980	0.107	9.159	< 0.001
Total_effect_c	1.024	0.106	9.637	< 0.001

Proportion of total effect mediated:	0.042
Ratio of indirect to direct effect:	0.044
Ratio of total to direct effect:	1.044

Figure 1: Mediating Effects Regression Model Path