



**The power of women on corporate boards and
their impact on the company: Corporate
performance, Strategic decision-making, Social
Responsibility, Challenges and Barriers throughout
different industries**

Master degree in International Business

Antonieta Fenina Simões

Leiria, September of 2025



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Dissertation under the supervision of Professor Neuza Manuel Pereira Ribeiro and
Professor Rosa Helena Lutete Geremias

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Originality and Copyright

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Dedication

To my family,

I dedicate this work to my father and sister, Gabriel and Catarina. Thank you for all your support and encouragement, you always believed in me even when I didn't. Thank you to my aunt for always listening and having a piece of advice ready to go. Without you I couldn't have made it this far, thank you for always believing in me and in my goals.

With love,

Antonieta

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Antonieta

Abstract

Corporate governance, corporate performance and sustainability have been, in the last few years, the key topics in the debate of gender diversity on corporate boards. Even though the presence of women has increased in the decision-making areas, their impact on corporate performance remains questioned. There are several studies highlighting the positive effects of women in financial and non-financial outcomes such as corporate social responsibility (CSR), while others report inclusive or weak results. This uncertainty reinforces how imperative it is to further examine whether and how women in corporate boards influence organizational performance across industries.

To analyze the relationship between gender diversity on corporate boards and corporate performance, this study will focus on financial indicators which includes return on assets (ROA), return on equity (ROE), return on investment (ROI), net profit, and, also, non-financial indicators, including corporate social responsibility (CSR). A quantitative methodology is applied, along with a hypothetical approach by using data obtained from financial statements, annual and sustainability reports from fifteen European multinational companies across different industries throughout a period of ten years (2014-2024). To test whether gender diversity enhances corporate performance, statistical techniques such as regression analysis will be used.

It is found that the presence of women on boards is modestly but positively associated with operational efficiency, also a more stable relationship with CSR and sustainability outcomes demonstrates that gender diversity, particularly, women on corporate boards as a significant influence in shaping non-financial dimensions of performance. These findings will contribute to the on-going debate on gender diversity on boards and how corporate performance can be affected.

Keywords: Gender diversity, Corporate boards, Sustainability, Corporate Social Responsibility, Financial performance, Corporate performance

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List of Abbreviations and Acronyms

BNP Paribas – Banque Nationale de Paris Paribas

BMW – Bayerische Motoren Werke

CSR – Corporate Social Responsibility

ESG – Environmental, Social and Governance

EU – European Union

H1 – Hypotheses 1

H2 – Hypotheses 2

ING Group – Internationale Nederlanden Groep

IT – Information Technology

NPM – Net Profit Margin

OLS – Ordinary Least Squares

ROI – Return on Investment

ROA – Return on Assets

ROE – Return on Equity

SAP – Systems, Applications and Products in Data Processing

SD – Standard Deviation

UK – United Kingdom

1. Introduction

Gender diversity on corporate boards has evolved, over the last twenty years, from a trivial concern to a central topic in corporate governance research, business practice and political discussion. Around the world, the presence of women in leadership positions has increased, which triggered debates about equality, fairness and value of diversity, particularly, the corporate boardroom became a focus point of scrutiny regarding the role of shaping organizational strategies, ensuring accountability, overseeing financial performance and upholding social and ethical responsibilities. Despite the increasing progress, the representation of women in top-decision making roles remains underrepresented, even in advanced economies such as those in Europe, the representation of women in boards remains below societal expectations, according to recent studies (Byron & Post, 2016; Campopiano, Gabaldón & Gimenez-Jimenez, 2022).

The European Union (EU) has a pioneering role in establishing regulatory frameworks designed to increase female members in higher levels of corporate boardrooms, the EU has promoted several gender equality policies, such as, the 2012 directive proposal and the 2022 agreement obligating a minimum of 40% female non-executive directors in listed companies by 2026. Many countries, in Europe, have already introduced their own agenda to advance towards gender diversity in leadership, including Germany, Italy, Norway and France (Terjesen, Aguilera & Lorenz, 2015). In 2014 sustainability frameworks such as the Non-Financial Reporting Directive and in 2022 the Corporate Sustainability Reporting Directive reinforced how imperative it is to disclose diversity and CSR information, thus making Europe an example environment in examining board composition and performance outcomes.

The amount of attention gender diversity is getting isn't merely a matter of ethical commitment or compliance with regulation. Several research suggests that gender diversity on boards could enhance organizational outcomes by implementing multiple perspectives, improving risk assessment, aligning corporate strategies and reducing groupthink (Adams & Funk, 2012; Rao & Tilt, 2016). An association between collaborative leadership styles, stronger ethical orientations and a higher sensitivity to stakeholder's concerns is often made with female directors, which may shape both financial and non-financial performances (Nielsen & Huse, 2010; Gaio & Gonçalves, 2022). Some scholars and practitioners continue

to question whether diversity truly translates into measurable improvements in firm value or if it benefits primarily in legitimacy and reputation (Simionescu, Gherghina, Tawil & Sheikha, 2021).

The connection between board composition and corporate performance can be explained through perspectives such as agency theory which emphasizes the role that a certain company board has in monitoring management on behalf of shareholders, suggesting that diversity may enhance independence and reduce costs by preventing the union of power within homogenous groups. The value of diversity in boards is highlighted through access to wider resources, networks and perspectives, in the resource dependence theory, in which strengthening a firm's legitimacy and adaptability is defended (Nguyen, Ntim & Malagila, 2020). The importance of reflecting on multiple societal interests in government structures reflects on the stakeholder theory, especially when corporate social responsibility and, environmental, social and governance performance are imperative to legitimacy (Rao & Tilt, 2016). Usually, women, bring different priorities and leadership styles, such as collaboration, long-term orientation and ethical decision-making which leads to the adjustment of board dynamics and influence strategic outcomes, reflecting on social role theory (Adams & Funk, 2012; Bear, Rahman & Post, 2010).

Studies suggest that gender diversity on boards is more prominent to engage in corporate social responsibility initiatives, react to stakeholders concerns e prioritize sustainable initiatives (Cook & Glass, 2018; Gaio & Gonçalves, 2022). For instance, Rao and Tilt (2016) defended that gender diversity in board composition is a key role for CSR strategies, meanwhile, Oino and Liu (2022) found that female directors have a direct influence in sustainability performance, particularly in contexts when external pressures for accountability are high. In emerging markets, some studies identified positive connections between female representation and profitability (Marquez-Cardenas, Gonzalez-Ruiz & Duque-Grisales, 2022), however, others, such as Simionescu et al. (2021), found neutral or negative associations in certain industries which reflects on the complexity of measuring financial outcomes.

Despite the growing number of studies on gender diversity, there are some gaps. Most empirical studies on board gender diversity are concentrated in one geographic region, primarily focusing on the United States or in emerging economies such as Latin America or China (Marquez-Cardenas et al., 2022; Khidmat et al., 2021). While some studies report positive impact of diversity, others show no significant effect and others identify drawbacks related to tokenism or conflicts (Adams & Funk, 2012; Simionescu et al., 2021), also many

of the existing literature preferences financial performance metrics, while non-financial metrics such as CSR and ESG are treated as secondary despite their rising importance for regulators and stakeholders (Galbreath, 2011; Dang et al., 2020).

Financial indicators are necessary to assess whether diversity translates into shareholder value and operational efficiency, that's why one of the strengths of this study is the integration of both financial and non-financial measures of performance. For the financial indicators it is measured how effectively a company uses their resources to create more earnings (ROA), it is assessed profitability relatively to shareholders investments (ROE), and, also, ROI which captures the efficiency of capital allocations and in which net profit represents the financial success of a company, together these metrics form a comprehensive view of firm profitability and efficiency (Nguyen et al., 2020).

For the non-financial indicators, there is corporate social responsibility (CSR) which reflects on the company commitment to environmental, social and ethical responsibilities, also, environmental, social and governance (ESG) which operationalize these commitments into measurable indicators to investors, regulators and consumers. Several studies suggest that female directors are particularly influential in shaping these dimensions, that happens because women tend to prioritize ethical governance, long-term sustainability and stakeholder engagement (Bear, Rahman & Post, 2010; Rao & Tilt, 2016; Gaio & Gonçalves, 2022). For instance, Cook and Glass (2018) found that women on boards sow advance in CSR agendas, Setó-Pamies (2015) connected stonger CSR engagement in European firms to female board representation. Combining financial and non-financial indicators, this study responds to the need for a more complete assessment of board gender diversity and the impact it has.

The objective of this study is to analyze the extent to which gender diversity on corporate boards influences both financial and non-financial performance in companies, which leads to the research question: "How does the gender composition of corporate boards influence both financial and non-financial performance, including corporate social responsibility, decision-making processes, and company reputation, across different industries?"

To achieve the goal of study, quantitative, hypothetical research was designed, relying on data from annual and sustainability reports, financial statements from fifteen companies across different industries. The companies were selected from five key industries, consumer goods and retail, financial services, industrials, technology and telecommunications, energy and utilities, to capture diverse markets and regulatory environments. The time frame

chosen, 2014 to 2024, covers a full decade of regulatory changes, adoption of ESG practices as well as the implementation of gender diversity quotas in several European countries. This methodological approach, by using regression models, ensures a robust empirical examination of the relationship between gender diversity and performance. The finding provides insights for regulators, policymakers and corporate leaders by demonstrating that the impact of non-financial indicators, such as CSR and ESG, are more strategically valuable, while financial indicators are more modest or mixed. This study starts by introducing the topic and research objectives, next it is reviewed the relevant literature along with the gaps, followed by the description of the research methodology along with the presentation of the data analysis and results, and, also, the discussion of the findings with the conclusions, recommendations and future research.

2. Literature Review

The relationship between the gender composition of corporate boards and organizational outcomes has emerged as a noticeable focus within corporate governance over recent decades. This literature review seeks to provide a comprehensive and critical examination of the existent research regarding the influence of women's participation on corporate boards, encompassing both financial and non-financial performance dimensions. Specifically, the review addresses corporate social responsibility (CSR), strategic decision-making processes, and corporate reputation across diverse industry contexts.

The structure of this review is closely aligned with the study central research question "How does the gender composition of corporate boards influence both financial and non-financial performance, including corporate social responsibility, decision-making processes, and company reputation, across different industries?"

This alignment ensures that the discussion directly addresses the study's hypotheses. Hypothesis 1 (H1) Gender diversity on corporate boards positively influences corporate financial performance, while Hypothesis 2 (H2) suggests that Gender diversity on corporate boards enhances non-financial performance, including corporate social responsibility (CSR) and ethical decision-making.

The review begins by examining the theoretical foundations that support the relationship between board gender diversity and organizational performance. Understanding these theoretical frameworks is critical for interpreting empirical evidence and for explaining the pathways through which women directors may exert influence on both financial and non-financial outcomes. The primary theories considered include Agency Theory (Jensen & Meckling 1976), Resource Dependence Theory (Pfeffer & Salancik, 1978), Social Role Theory (Eagly, 1987), Stakeholder Theory (Freeman, 1984), Upper Echelons Theory (Hambrick & Mason, 1984), and Institutional Theory (DiMaggio & Powell, 1983). Each framework provides distinct yet complementary insights into the mechanisms through which gender diversity can impact corporate governance and organizational effectiveness. Following this theoretical discussion, the review analyses empirical studies addressing key dimensions of corporate performance, including financial outcomes, strategic decision-making processes, CSR engagement, reputational effects, and the challenges encountered by women in board positions across different industries.

2.1. Theoretical Foundations

The relationship between the gender composition of corporate boards and organizational outcomes has been a central focus of research across corporate governance, management, and organizational behavior. Scholars have examined how female directors influence corporate financial performance, strategic decision-making, and corporate social responsibility (CSR), highlighting the importance of understanding the mechanisms behind these effects. Theoretical frameworks provide essential lenses to interpret empirical evidence, explain observed patterns, and illuminate why women's presence on boards can affect both financial and non-financial outcomes. This study draws upon a set of complementary theories—including Agency Theory, Behavioral Agency Theory, Resource Dependence Theory, Social Role Theory, Stakeholder Theory, Upper Echelons Theory, Institutional and Legitimacy Theories, Critical Mass Theory, and Human Capital Theory—each offering a unique perspective on the roles, behaviors, and impacts of female board members. Together, these frameworks provide a multi-dimensional foundation for examining gender diversity on corporate boards.

2.1.1. Agency and Behavioral Agency Theory

Agency Theory, formulated by Jensen and Meckling (1976), is foundational to corporate governance research. It posits that organizational inefficiencies arise when there is a separation between ownership and control, creating potential conflicts between managers (agents) and shareholders (principals). Without effective oversight, managers may pursue self-interested strategies that conflict with shareholder goals, resulting in suboptimal performance. Boards of directors are tasked with monitoring managerial behavior, aligning incentives, and ensuring accountability. Female directors are theorized to enhance these governance functions, demonstrating higher diligence in oversight, questioning assumptions, and advocating for transparency and ethical decision-making. Adams and Funk (2012) argue that women actively challenge managerial decisions, reducing agency costs and promoting robust governance practices. Similarly, Isidro and Sobral (2015) show that gender-diverse boards improve ethical compliance, transparency, and financial reporting. Behavioral extensions of Agency Theory further suggest that women influence risk perception, encouraging more prudent risk-taking that stabilizes corporate performance (Datta et al., 2021). Rahi (2024) extends this perspective, emphasizing that boards with

higher female representation adopt long-term strategic approaches that align governance oversight with sustainability, profitability, and resilience.

2.1.2. Resource Dependence Theory

Resource Dependence Theory (Pfeffer & Salancik, 1978) complements agency perspectives by focusing on the board's role in securing critical resources, knowledge, and external networks. Boards act as conduits between the firm and its external environment, providing access to financial capital, expertise, and strategic connections that enhance competitiveness. Female directors bring unique skills, professional networks, and diverse perspectives that improve strategic decision-making and organizational adaptability. Rao and Tilt (2016) emphasize that women strengthen stakeholder engagement and external partnerships, facilitating collaborations that support corporate objectives. Empirical evidence from Latin American firms (Marquez-Cardenas, Gonzalez-Ruiz & Duque-Grisales, 2022) shows that boards with female directors mobilize resources more effectively, respond to market fluctuations, and seize growth opportunities.

2.1.3. Social Role and Stakeholder Theories

Social Role Theory (Eagly, 1987) and Stakeholder Theory (Freeman, 1984) provide complementary behavioral and ethical lenses. Social Role Theory posits that societal expectations shape gendered behaviors, with women socialized toward communal, collaborative, and participative approaches. In board settings, these behaviors translate into inclusive discussions, ethical deliberation, and attention to long-term social impacts. Studies by Galbreath (2011) and Cook and Glass (2018) indicate that female directors integrate social responsibility into corporate strategies, promoting stakeholder engagement and participatory decision-making. Empirical evidence also shows that firms with higher female representation are more active in CSR initiatives, addressing environmental, employee, and community concerns (Bear, Rahman, & Post, 2010). Stakeholder Theory reinforces this perspective, arguing that sustainable long-term performance depends on balancing the interests of employees, customers, suppliers, communities, and shareholders. Women directors operationalize stakeholder principles, embedding ethical accountability and CSR considerations into strategic and operational outcomes, enhancing legitimacy and reputation (Rao & Tilt, 2016; Boulouta, 2012).

2.1.4. Upper Echelons Theory

Upper Echelons Theory (Hambrick & Mason, 1984) emphasizes the role of executive characteristics, experiences, and values in shaping organizational outcomes. Board composition, including gender diversity, influences strategic choices, risk assessment, innovation, and corporate culture. Female directors contribute cognitive diversity, bringing alternative problem-solving approaches, ethical perspectives, and risk evaluations. Nielsen and Huse (2010) demonstrate that women improve the quality of board discussions, decision outcomes, and innovation. Nguyen, Ntim, and Malagila (2020) further show that gender-diverse boards enhance financial stability and sustainability-oriented strategies, especially in complex industries such as technology, finance, and energy.

2.1.5. Institutional and Legitimacy Theories

Institutional Theory (DiMaggio & Powell, 1983) and Legitimacy Theory highlight the influence of external societal, regulatory, and cultural pressures on board composition and effectiveness. Institutional factors, such as gender quotas, legal mandates, and normative expectations, shape the extent and impact of female board participation. Grosvold and Brammer (2011) find that countries with supportive gender equality policies exhibit higher female representation and superior corporate outcomes. Terjesen, Aguilera, and Lorenz (2015) show that quotas increase women's presence on boards and positively influence CSR engagement, ethical practices, and corporate reputation. Legitimacy Theory further suggests that firms adopt gender-diverse boards to gain societal approval, enhance stakeholder trust, and maintain institutional legitimacy.

2.1.6. Critical Mass Theory

Critical Mass Theory posits that women can meaningfully influence board outcomes only after achieving a minimum threshold, typically three or more directors (Nielsen & Huse, 2010; Boulouta, 2012). Token representation may limit influence due to marginalization or insufficient participation in decision-making. Achieving critical mass enhances strategic involvement, ethical influence, and CSR impact, demonstrating that both presence and numerical strength are necessary for substantive change.

2.1.7. Human Capital Theory

Human Capital Theory emphasizes that the knowledge, skills, experience, and competencies of board members directly contribute to organizational performance. Female directors bring specialized expertise, industry knowledge, and diverse professional backgrounds that enhance board deliberation, strategic decision-making, and innovation (Datta et al., 2021; Gordini & Rancati, 2017). Their contributions strengthen both financial and non-financial outcomes, complementing structural, behavioral, and institutional perspectives.

2.2. Corporate Financial Performance

Corporate financial performance represents one of the most extensively studied outcomes in corporate governance literature, commonly measured through profitability indicators such as return on assets (ROA), return on equity (ROE), return on investment (ROI) and Net Profit. Boards of directors play a pivotal role in shaping these outcomes through oversight, strategic decision-making, and resource allocation. Understanding the impact of gender diversity on corporate financial performance requires examining both direct and indirect mechanisms, encompassing governance effectiveness, ethical oversight, risk-taking, and access to external resources.

Agency Theory (Jensen & Meckling, 1976) provides a foundational explanation for the positive relationship between female board representation and financial performance. In line with this theory, the separation of ownership and control in corporations can generate agency conflicts, where managers may pursue self-interested goals that diverge from shareholder interests. Female directors frequently mitigate such conflicts by strengthening monitoring mechanisms, fostering transparency, and ensuring managerial accountability. Adams and Funk (2012) demonstrate that women directors actively participate in board discussions, challenge managerial assumptions, and advocate for policies aligned with shareholder interests. Similarly, Isidro and Sobral (2015) highlight that gender-diverse boards achieve higher levels of ethical compliance, improved financial transparency, and reduced risk-taking, contributing to sustainable profitability. Rahi (2024) further emphasizes that boards with greater female representation adopt long-term strategic approaches, ensuring that financial oversight aligns with organizational objectives and enhances overall firm resilience.

Resource Dependence Theory (Pfeffer & Salancik, 1978) offers a complementary perspective, focusing on the board's role in securing critical resources, external information, and strategic networks. Female directors bring diverse perspectives, professional expertise, and social capital that facilitate access to financial capital, market intelligence, and strategic opportunities. Rao and Tilt (2016) note that women's participation strengthens stakeholder engagement and supports informed financial decisions. Empirical evidence from Marquez-Cardenas, Gonzalez-Ruiz, and Duque-Grisales (2022) in Latin American firms shows that boards with female members are better equipped to mobilize resources and respond to market fluctuations, improving not only profitability but also long-term value creation. Resource Dependence Theory thus underscores that women contribute beyond oversight,

affecting capital allocation, innovation management, and the firm's capacity to navigate competitive environments.

The indirect mechanisms through which female directors influence corporate financial performance are equally important. Boards with higher female representation often foster ESG integration, governance improvements, and innovation, which in turn enhance financial outcomes. Ouni, Mansour, and Arfaoui (2020, 2022) demonstrate that gender-diverse boards leverage ESG practices to influence risk management, capital structure decisions, and long-term profitability. Safiullah et al. (2022) and Datta et al. (2021) show that women's presence on boards encourages strategic innovation and prudent governance practices, ultimately supporting better stock performance, more sustainable capital structures, and improved operational efficiency.

Empirical studies also indicate that the effects of gender diversity on financial performance are shaped by sectoral and regional contexts. Simionescu, Gherghina, Tawil, and Sheikha (2021) examine the IT sector within the S&P 500, finding that firms with higher female representation achieve superior performance metrics, including Tobin's Q and ROA, due to enhanced risk management, innovative decision-making, and cognitive diversity. In the UK and Italy, studies by Reguera-Alvarado et al. (2015) and Gordini & Rancati (2017) report that gender-diverse boards positively influence profitability and strategic financial outcomes. Marquez-Cardenas et al. (2022) observe similar benefits in Latin American manufacturing and service industries, particularly in volatile markets where effective oversight and adaptive risk-taking are critical.

Committee-level engagement further reinforces female directors' influence on financial performance. Korenkiewicz and Maennig (2024) note that women serving on audit, risk, and remuneration committees enhance monitoring, reduce operational inefficiencies, and improve financial reporting quality, which in turn supports profitability and stock performance. Rahi (2024) highlights that women on strategy and remuneration committees help align executive incentives with long-term value creation, affecting both risk-taking behavior and capital allocation decisions. By embedding diverse perspectives in committees responsible for financial oversight, women directors strengthen the board's ability to deliver sound financial outcomes.

Institutional and cultural factors moderate the relationship between gender diversity and financial performance. Grosvold and Brammer (2011) find that in regions or industries with entrenched male dominance or weak gender equality norms, women's representation may

not immediately translate into improved financial outcomes due to tokenism or limited influence. Conversely, in supportive institutional environments, female directors significantly enhance governance quality, risk management, and strategic decision-making, producing tangible improvements in profitability, capital structure, stock performance, and overall firm value.

Corporate financial performance is influenced by female board representation through multiple interconnected pathways. Agency Theory (Jensen & Meckling 1976) explains improved oversight, ethical governance, and reduced risk-taking; Resource Dependence Theory (Pfeffer & Salancik, 1978) highlights enhanced access to strategic resources, networks, and market intelligence; and committee-level engagement ensures effective monitoring, capital allocation, and executive incentive alignment. Indirectly, ESG integration, governance improvements, and innovation mediate the relationship between gender diversity and financial outcomes. Empirical evidence from diverse sectors and regions demonstrates that women directors contribute to superior financial performance, resilience, and long-term value creation, although contextual factors such as industry type, cultural norms, and institutional support moderate the magnitude of these effects.

2.3. Strategic Decision-Making

Strategic decision-making is a central function of corporate boards, encompassing the processes through which directors influence long-term goals, resource allocation, risk management, and competitive positioning. Unlike routine operational decisions, strategic choices are inherently complex, uncertain, and involve significant risk. Achieving optimal outcomes requires cognitive diversity, inclusive deliberation, and ethical oversight. Research increasingly demonstrates that gender diversity enhances strategic decision-making, as women directors contribute distinct perspectives, improved discussion quality, higher board involvement, refined risk perception, and more effective decision outcomes, complementing traditional board practices.

Upper Echelons Theory, introduced by Hambrick and Mason (1984), provides a foundational framework for understanding how board composition influences strategic outcomes. The theory posits that organizational decisions reflect the values, experiences, and cognitive styles of top executives and board members. Female directors, through their diverse professional experiences and socialization, enhance discussion quality and foster board involvement in strategic deliberations. Nielsen and Huse (2010) show that women directors introduce cognitive diversity that improves decision outcomes by broadening perspectives, mitigating groupthink, and strengthening problem-solving. Nguyen, Ntim, and Malagila (2020), in a systematic review, confirm that boards with higher female representation engage in more comprehensive risk assessment, generate more innovative strategies, and implement sustainability-oriented initiatives, particularly in high-complexity sectors such as technology, finance, and energy.

Social Role Theory (Eagly, 1987) and Stakeholder Theory (Freeman, 1984) illuminate gendered approaches to leadership and strategy. Social norms shape women's collaborative, participatory, and ethically oriented leadership style, which fosters inclusive board involvement, enhances discussion quality, and encourages stakeholder-oriented decision-making. Galbreath (2011) and Cook and Glass (2018) highlight that women directors facilitate broader participation in strategic discussions. Bear, Rahman, and Post (2010) show that female directors integrate social and ethical considerations into strategic initiatives, influencing decision outcomes that align with environmental, social, and governance (ESG) goals. Rao and Tilt (2016) further demonstrate that women incorporate CSR and long-term sustainability considerations into corporate strategy, ensuring risk perception accounts for social, reputational, and environmental dimensions.

Agency Theory (Jensen & Meckling, 1976) and Behavioral Agency Theory provide additional insights into how female directors strengthen board involvement and influence decision outcomes. Women enhance monitoring mechanisms, ensure managerial accountability, and contribute to more balanced risk perception, reducing excessive risk-taking while fostering long-term strategic stability. Rahi (2024) observes that women on risk and strategy committees guide boards toward prudent strategic planning, ensuring executive incentives align with sustainable performance and long-term objectives.

Resource Dependence Theory (Pfeffer & Salancik, 1978) highlights women directors' contributions to accessing critical resources, external knowledge, and networks, enhancing the quality of strategic decision outcomes. Marquez-Cardenas, Gonzalez-Ruiz, and Duque-Grisales (2022) show that boards with higher female representation mobilize external resources effectively and respond to market fluctuations, improving long-term competitiveness. Human Capital Theory emphasizes that female directors' skills, expertise, and professional experience improve discussion quality, inform risk perception, and strengthen strategic planning and execution (Datta et al., 2021; Gordini & Rancati, 2017).

Committee participation is another key pathway through which women directors influence strategic outcomes. Korenkiewicz and Maennig (2024) demonstrate that women on audit, remuneration, and strategy committees enhance discussion quality, ensure board involvement, embed ethical considerations into planning, and improve decision outcomes. Rahi (2024) notes that women on risk and strategy committees heighten attention to non-financial risks, improving risk perception and supporting sustainable decision-making.

The influence of women directors on strategic decision-making varies by industry, organizational environment, and institutional context. Simionescu et al. (2021) find that in the IT sector, gender-diverse boards outperform less diverse boards in innovation management, risk assessment, and technology adoption, due to improved discussion quality and decision outcomes. In Latin American manufacturing and service sectors, Marquez-Cardenas et al. (2022) observe that female directors encourage prudent risk-taking, long-term planning, and strategic stability, reflecting enhanced board involvement. Institutional and cultural frameworks further shape women's influence: supportive legal systems, inclusive corporate cultures, and gender equality norms amplify their impact, whereas hierarchical or male-dominated environments constrain effectiveness (Grosvold & Brammer, 2011). Critical Mass Theory emphasizes that a minimum threshold of female representation is necessary to achieve meaningful influence on decision outcomes (Nielsen & Huse, 2010). Legislative interventions, such as gender quotas, structurally embed diverse

perspectives into boards, improving strategic governance quality and long-term sustainability (Terjesen, Aguilera, & Lorenz, 2015).

Women directors enhance strategic decision-making through interconnected mechanisms. Cognitive diversity improves discussion quality, mitigates groupthink, and broadens scenario evaluation. Participatory leadership fosters board involvement, ensuring diverse viewpoints and stakeholder concerns inform strategy. Ethical and social sensitivity aligns strategic objectives with CSR initiatives and long-term sustainability, shaping risk perception. Professional expertise and networks enhance access to resources, improving decision outcomes. These mechanisms collectively produce strategic outcomes that are more balanced, innovative, and resilient, linking financial and non-financial performance.

2.4. Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) encompasses the ethical, social, and environmental obligations organizations assume beyond profit maximization and regulatory compliance. It includes environmental sustainability initiatives, ethical governance, employee welfare, community engagement, and transparent stakeholder communication. Increasingly, research demonstrates that gender diversity on corporate boards significantly influences CSR priorities, strategies, and outcomes. Female directors often exhibit heightened sensitivity to ethical, social, and environmental considerations, resulting in CSR initiatives that are proactive, strategically aligned, and responsive to stakeholder expectations.

The theoretical foundations explaining the influence of women on CSR are multi-faceted. Social Role Theory (Eagly, 1987) posits that gendered socialization shapes behaviors and decision-making tendencies. Women, socialized to adopt collaborative, participatory, and communal approaches, often bring these orientations into board deliberations. Galbreath (2011) and Cook and Glass (2018) argue that female directors are more likely to foster inclusive discussions, integrate ethical considerations, and engage stakeholders meaningfully. Empirical evidence supports these claims: Bear, Rahman, and Post (2010) find that firms with higher female board representation implement more comprehensive CSR initiatives, spanning environmental sustainability, equitable labor practices, and community development. Social Role Theory explains how gendered behavioral tendencies translate into enhanced CSR orientation, ethical deliberation, and stakeholder engagement.

Stakeholder Theory (Freeman, 1984) complements this perspective by emphasizing that firms achieve long-term success when they consider the interests of all relevant stakeholders, including employees, customers, suppliers, regulators, and communities. Female directors operationalize stakeholder-oriented governance by prioritizing decisions that advance social responsibility and ethical accountability. Rao and Tilt (2015, 2016) demonstrate that women enhance CSR integration and sustainability initiatives, building organizational legitimacy and stakeholder trust. Boulouta (2012) provides evidence that female representation improves corporate transparency, reporting quality, and reputational outcomes, reflecting the alignment of business strategy with societal expectations. Together, Social Role and Stakeholder Theories illuminate both the behavioral and structural pathways through which women affect CSR.

Agency Theory (Jensen & Meckling, 1976) and its behavioral extensions further clarify the mechanisms linking female participation to CSR outcomes. Boards are critical governance mechanisms for monitoring managerial behavior and mitigating opportunistic actions.

Adams and Funk (2012) highlight that women directors enhance oversight, reducing managerial deviations from ethical and socially responsible practices. Isidro and Sobral (2015) find that gender-diverse boards demonstrate higher CSR engagement and compliance with ethical standards, suggesting that women act as stewards of responsible corporate behavior. By scrutinizing strategic decisions and executive actions, female directors reduce the risk of unethical practices and embed CSR principles into organizational processes, linking governance quality to socially responsible outcomes.

Resource Dependence Theory (Pfeffer & Salancik, 1978) provides an additional lens by emphasizing the external resources and networks that women bring to boards. Rao and Tilt (2016) argue that female directors leverage professional networks, stakeholder relationships, and industry knowledge to facilitate CSR implementation, strengthen organizational legitimacy, and enhance reputational standing. Marquez-Cardenas, Gonzalez-Ruiz, and Duque-Grisales (2022) show that in Latin American firms, female directors play a pivotal role in shaping proactive CSR initiatives, particularly where regulatory oversight is limited. Women's external networks thus complement their internal governance role, allowing firms to mobilize knowledge, partnerships, and resources to advance sustainability and social responsibility.

Empirical studies highlight industry-specific and regional variations in the influence of women on CSR. Oino and Liu (2022) find that manufacturing and service firms with higher female board representation exhibit more structured CSR programs, proactive sustainability initiatives, and higher-quality disclosure. Gaio and Gonçalves (2022) report similar patterns in financial and technology sectors, with gender-diverse boards outperforming less diverse peers in CSR engagement, ethical conduct, and responsiveness to stakeholder needs. Regional contexts further shape outcomes: in Latin America, for example, Marquez-Cardenas et al. (2022) note that female directors drive CSR practices in environments where social accountability is primarily enforced through proactive governance rather than formal regulation. These findings suggest that while mechanisms such as ethical oversight, participatory decision-making, and external resource mobilization are consistent, the magnitude of women's influence is moderated by sectoral, institutional, and cultural factors. Committee-level participation is another mechanism through which women influence CSR. Korenkiewicz and Maennig (2024) demonstrate that female directors on audit, remuneration, and sustainability committees embed CSR objectives into corporate strategy, monitor compliance, and link CSR to executive incentives. Bose, Hossain, Sobhan, and Handley (2022) show that women in strategic decision-making roles promote ethical deliberation,

participatory governance, and transparent reporting, thereby increasing the likelihood of effective CSR adoption. Through these pathways, women exert both direct influence—via policy advocacy, monitoring, and implementation—and indirect influence—by shaping board culture, decision-making processes, and corporate norms.

Institutional Theory (DiMaggio & Powell, 1983) contextualizes the effectiveness of women directors in promoting CSR by highlighting the role of national legal frameworks, governance codes, and cultural norms. Grosvold and Brammer (2011) find that countries with strong gender equality policies or quotas exhibit higher female participation and enhanced CSR outcomes. Terjesen, Aguilera, and Lorenz (2015) demonstrate that mandatory quotas not only increase board representation but also elevate CSR engagement, ethical practices, and corporate reputation. Industry-specific norms also matter highly regulated sectors, such as finance and energy, rely on formalized CSR policies, whereas technology and service sectors may depend more on voluntary initiatives, where women directors play a central role in shaping the strategic social and environmental agenda.

The influence of women on CSR generates tangible reputational benefits and strengthens stakeholder trust. Isidro and Sobral (2015) note that gender-diverse boards are perceived more favorably by investors, customers, and employees, enhancing brand loyalty, market positioning, and competitiveness. Dang, Houanti, Sahut, and Simioni (2020) demonstrate that female-driven CSR reduces reputational risk, strengthens stakeholder confidence, and aligns corporate practices with societal expectations. These mechanisms reinforce the interconnection between CSR, strategic decision-making, and long-term corporate performance.

2.5. Challenges and Barriers Across Industries

Despite the well-documented benefits of gender diversity on corporate boards, women continue to face substantial challenges and barriers that limit their ability to influence both financial and non-financial corporate outcomes. These barriers operate across institutional, cultural, organizational, and industry-specific levels, affecting women's capacity to contribute to strategic decision-making, CSR initiatives, risk assessment, and governance processes. Recognizing these obstacles is crucial for understanding the conditions under which female directors can exert meaningful influence and for designing policies to maximize their impact.

Institutional barriers are among the most pervasive constraints. Institutional Theory (DiMaggio & Powell, 1983) explains that national legal frameworks, corporate governance codes, and cultural norms shape organizational behavior and board composition. Grosvold and Brammer (2011) demonstrate that countries with weak regulatory support for gender equality or poorly enforced governance codes have lower female board representation, reducing the potential for women to influence discussion quality, strategic decision-making, and committee-level risk oversight. Legitimacy Theory further highlights that societal perceptions of women's roles on boards can constrain their authority, limiting their capacity to affect financial performance, CSR reputation, and disclosure practices. Legislative quotas, as noted by Terjesen, Aguilera, and Lorenz (2015), increase numerical representation but do not automatically ensure meaningful participation, particularly in hierarchical or male-dominated industries.

Cultural barriers also significantly constrain women directors' influence. Social Role Theory (Eagly, 1987) posits that gendered socialization shapes behavioral tendencies, often leading to perceptions of women as collaborative but less authoritative decision-makers. Adams and Funk (2012) describe the "glass ceiling" phenomenon, where women encounter informal restrictions on promotion and authority, resulting in limited engagement in high-stakes strategic discussions, risk-taking deliberations, and committee decisions. Tokenism, whereby women occupy positions without substantive influence, further undermines their capacity to contribute to governance mechanisms, CSR strategy, and ethical oversight (Rahi, 2024). These cultural barriers subtly affect discussion quality, board involvement, and decision outcomes, reducing the extent to which female directors can shape organizational strategy and CSR initiatives.

Organizational barriers are equally important. Women often face restricted access to critical board committees—such as audit, risk, strategy, and sustainability—limiting their role in

shaping governance mechanisms, monitoring executive decisions, and integrating CSR objectives into strategic planning. Nielsen and Huse (2010) report that female directors experience marginalization during board discussions, reducing both participation quality and influence over risk perception and capital structure decisions. Bear, Rahman, and Post (2010) emphasize that inclusive governance practices, mentorship opportunities, and transparent committee assignments are crucial for enabling women to leverage their human capital and contribute meaningfully to financial performance, strategic foresight, and CSR implementation. Without these organizational supports, boards fail to realize the potential benefits of gender diversity in both discussion quality and strategic oversight.

Industry-specific factors further moderate women's influence. In male-dominated sectors such as manufacturing, energy, construction, and extractive industries, hierarchical norms and occupational segregation restrict access to leadership roles, committees, and decision-making forums (Grosvold & Brammer, 2011). Conversely, finance, technology, and service sectors have seen increased female participation over the last two decades; however, women still face challenges in establishing credibility, engaging in risk-taking discussions, and influencing capital structure decisions (Simionescu et al., 2021; Marquez-Cardenas et al., 2022). These sectoral differences underscore the importance of considering the interplay between institutional, organizational, and industry contexts when evaluating the effectiveness of female board members in driving both financial and non-financial outcomes. Empirical evidence illustrates the consequences of these barriers. In restrictive institutional or cultural environments, the positive effects of gender diversity on profitability, CSR reputation, disclosure quality, and strategic decision-making are muted. Grosvold and Brammer (2011) demonstrate that female participation in countries with limited gender equality norms does not consistently enhance corporate performance or CSR engagement. Rahi (2024) notes that tokenism and cultural resistance can prevent women from influencing board-level discussions, strategic risk assessment, and CSR initiatives, reducing the potential impact of Hypotheses 1 and 2. Meta-analyses reveal mixed findings, indicating that women's influence is contingent on supportive governance structures, equitable committee participation, and inclusive organizational cultures (Dang, Houanti, Sahut, & Simioni, 2020).

Despite these challenges, research identifies strategies that improve women directors' effectiveness. Legislative quotas, diversity policies, mentorship programs, and formal committee assignments increase both representation and influence, translating into improvements in strategic discussion quality, risk management, CSR integration, and

disclosure practices (Terjesen, Aguilera, & Lorenz, 2015; Rahi, 2024). Cultivating organizational cultures that value diversity, foster open communication, and recognize contributions irrespective of gender strengthens women's capacity to shape governance mechanisms, board involvement, decision outcomes, and CSR reputation. Training programs for directors and policies ensuring equitable access to high-impact committees enhance women's ability to contribute to risk assessment, strategic decision-making, and socially responsible initiatives. While female directors provide significant advantages—including improved discussion quality, ethical oversight, strategic foresight, and CSR engagement—their impact is often constrained by structural and contextual barriers. Institutional Theory and Legitimacy Theory explain how legal frameworks, quotas, and socio-cultural norms shape female participation, while Social Role Theory and Critical Mass Theory illuminate behavioral and threshold dynamics affecting influence. Organizational structures, committee assignments, and industry characteristics interact with these macro- and micro-level determinants, moderating the translation of gender diversity into measurable financial performance, CSR reputation, and strategic decision-making outcomes. Addressing these barriers is essential to ensure that gender-diverse boards can achieve both financial and non-financial corporate objectives, enhancing sustainability, ethical governance, and long-term value creation.

3. Method

In this section, the methodological approach used to analyze the impact of gender diversity on corporate boards, both financial and non-financial performance across the fifteen companies selected. This section describes sample data collection, the operationalization of variables, both dependent, independent and control variables, and the statistical techniques used. All together with prior studies on gender diversity, board composition and corporate performance (e.g., Adams and Funk, 2012; Rao and Tilt, 2016; Marquez-Cardenas et al., 2022; Simionescu et al., 2021).

3.1. Sample and Data

All across Europe, fifteen multinational companies, operating in distinct industries, were selected to be analyzed for this study, such as consumer goods and retail firms, Unilever, L’Oreal, Nestlé, financial services providers, BNP Paribas, Allianz, ING Group, industrial and automotive corporations BMW, Volvo Group, Siemens, technology and telecommunications, SAP, Ericsson, Vodafone, and, energy and utilities providers, Enel, TotalEnergies and Ørsted, all of them presented in Table 1. Data was collected from each company annual report over the time period of 2014 to 2024.

Table 1. List of companies, industry and country

Industry Sector	Company	Country
Consumer Goods & Retail	Unilever	UK / Netherlands
	L’Oréal	France
	Nestlé	Switzerland
Financial Services	BNP Paribas	France
	Allianz	Germany
	ING Group	Netherlands
Automotive & Industrial	Volvo Group	Sweden
	BMW	Germany
	Siemens	Germany
Technology & Telecom	SAP	Germany
	Ericsson	Sweden
	Vodafone	UK

Energy & Utilities	Enel	Italy
	Ørsted	Denmark
	TotalEnergies	France

Source: Author

To reflect different institutional, cultural and regulatory environments that influence board diversity, the sample was selected to capture the variation across industries and countries. From 2014 to 2024, data was collected from annual reports, financial statements, sustainability and CSR reports, the ten year scope allows for the identification of trends in board gender diversity and composition, as well as their relationship with corporate outcomes over time, which is consistent with methodological designs of longitudinal studies on corporate governance (Galbreath, 2011; Nguyen, Ntim, and Malagila, 2020). By focusing on established multinational companies it allows us to align with evidence defending that governance effects tend to be more visible in larger and more complex organizations.

3.2. Variables

This research distinguishes between independent, dependent, and control variables; each were selected based on theoretical relevance and empirical support from prior studies on board gender diversity and corporate performance (Adams & Funk, 2012; Nielsen & Huse, 2010; Rao & Tilt, 2016; Simionescu et al., 2021). The independent variable captures the presence and influence of women on corporate boards, while the dependent variables reflect both financial and non-financial outcomes of corporate performance. Control variables are included to account for firm-specific and contextual factors that may influence these relationships. The operationalization of variables is guided by prior research that highlights the multidimensional impact of gender diversity on board decision-making, strategic involvement, and corporate social responsibility (Bear, Rahman, & Post, 2010; Campbell & Mínguez-Vera, 2008; Nguyen et al., 2020). The following sections describe each variable in detail, including measurement approaches, indicators, and theoretical justification. All the variables are presented in Table 2.

3.2.1. Independent Variable

In this study, the independent variable is gender diversity on boards, which reflects the representation of women within the company's highest decision-making body. This variable is reflected as the percentage of women director's compared to the total board size, providing a proportional measure of gender representation. To capture the bigger influence of women in strategic decision-making, this study also considers the number of women in leadership roles and executive committee positions.

The foundation for including these measures is supported by literature showing that both the presence and active participation of women on boards can influence corporate strategy, risk assessment, and ethical decision-making (Nielsen & Huse, 2010; Adams & Funk, 2012; Rahi, 2024). By using both proportional and absolute measures, the study accounts for not only the share of female directors but also their capacity to influence strategic discussions and organizational outcomes. A higher percentage of women is expected to contribute to more diverse perspectives, improved oversight, and enhanced engagement in CSR initiatives (Nguyen et al., 2020; Cook & Glass, 2018). Data for this variable was collected from company annual reports, sustainability reports, and corporate governance disclosures. Indicators include the percentage of women on the board, the number of women in leadership positions, and the number of women in executive committees.

3.2.2. Dependent Variable

The dependent variables are divided into financial and non-financial performance metrics, reflecting both profitability and corporate social responsibility outcomes.

3.2.2.1. Financial performance is tested by four financial indicators such as, return on assets (ROA), which measures how efficiently a company uses their assets to generate profits, return on equity (ROE), which measures the return generated by shareholders equity, return on investment (ROI), which measures the efficiency of investments in generating profitable returns, and net profit, which measures the profitability of the company after all the expenses. These measures are widely accepted in corporate governance research as indicators of profitability and operational efficiency (Campbell & Mínguez-Vera, 2008; Isidro & Sobral, 2015; González-Ruiz & Duque-Grisales, 2022). These metrics provide a comprehensive evaluation of financial outcomes linked to board gender diversity, consistent with prior studies demonstrating a positive association between gender diversity and firm

financial performance (Simionescu et al., 2021; Amo et al., 2025; García-Meca & Santana-Martín, 2023).

3.2.2.2. Non-financial performance captures the company’s social and ethical engagement, including ESG practices and corporate social responsibility initiatives. Indicators include ESG scores, which come from sustainability reports, external rating agencies, and the presence of women in leadership and executive committee positions. These indicators are included due to literature showing that gender-diverse boards often enhance corporate social performance by promoting ethical decision-making, stakeholder engagement, and sustainability initiatives (Bear, Rahman & Post, 2010; Rao & Tilt, 2016; Gaio & Gonçalves, 2022; Cook & Glass, 2018). The presence of women in leadership roles complements board-level measures by capturing broader organizational influence and strategic participation in non-financial initiatives (Bose et al., 2022; Hyun et al., 2016).

3.2.3. Control Variable

Contextual factors and firm-specific characteristics that could influence both financial and non-financial performance are used as control variables. In this study, the control variables are board size, as the total number of directors which may affect decision-making processes, strategic alignment and board effectiveness (Rao & Tilt, 2016). Company age is also used as a control variable, in which the number of years since the firm’s foundation reflects the potential effect of organizational maturity on adaptability, risk-taking and innovation (Isidro & Sobral, 2015; Nguyen et al., 2020). These control variables ensure that the estimated relationships between gender diversity and performance outcomes are not confounded by structural or contextual differences across firms.

Table 2. List of variables

Type	Name	Measurement	Indicators	Source
Independent	Gender diversity on boards	Percentage of women directors relative to total board size	Percentage of women on the board, number of women in leadership roles, number of	Company annual reports, sustainability reports, corporate governance disclosures (Nielsen

			women in executive committees	& Huse, 2010; Adams & Funk, 2012; Rahi, 2024)
Dependent	Financial performance	Profitability metrics derived from audited financial statements	Return on Assets (ROA), Return on Equity (ROE), Return on Investment (ROI), Net Profit	Company annual reports, financial statements (Campbell & Mínguez-Vera, 2008; Isidro & Sobral, 2015; González-Ruiz & Duque-Grisales, 2022)
Dependent	Non-financial performance	ESG and CSR-related metrics reflecting sustainability and social responsibility	ESG score, number of women in leadership roles, number of women in executive committees	Company sustainability reports, ESG rating agencies, corporate governance disclosures (Bear, Rahman & Post, 2010; Rao & Tilt, 2016; Cook & Glass, 2018; Gaio & Gonçalves, 2022)
Control	Board size	Total number of directors on the board	Number of directors	Company annual reports, corporate governance disclosures (Rao & Tilt, 2016)
Control	Company age	Years since founding	Age in years	Company annual reports, corporate websites (Isidro &

				Sobral, 2015; Nguyen et al., 2020)
Control	Industry sector	Sector classification	Consumer goods and retail, financial services, Automotive and industrial, Technology and telecom, Energy and utilities	Company annual reports, industry classifications (Grosvold & Brammer, 2011; Provasi & Harasheh, 2020)

Source: Author

3.3. Procedure

The relationship between gender diversity and corporate performance is analyzed by ordinary least squares (OLS) regression analyses conducted using Microsoft Excel. The analyses were performed separately for financial and non-financial performance indicators. Financial performance was measured using return on assets (ROA), return on equity (ROE), return on investment (ROI), and net profit, while non-financial performance was assessed through ESG scores, as well as the number of women in leadership and executive committee roles.

This analysis was conducted in two stages. The first stage focused on financial performance, with separate regressions for each indicator: ROA, ROE, ROI, and net profit. In each model, the independent variable—percentage of women on boards—was included alongside control variables, such as board size, company age, and industry sector. This approach isolated the effect of gender diversity on firm profitability while accounting for firm-specific characteristics and industry differences. The second stage addressed non-financial performance, running separate regressions for ESG scores, the number of women in leadership roles, and the number of women in executive committees. The same independent and control variables were applied, allowing for a consistent assessment across different performance dimensions.

The regressions were conducted by organizing the data into columns for each variable, including the dependent variable, the independent variable, and the control variables. The “Data Analysis” toolpak in Excel was activated, and the “Regression” function was selected. The regression analyses are presented in Table 3. The dependent variable was defined as the Y range, while the independent and control variables were input as the X range. The output was generated in a new worksheet, providing regression coefficients, standard errors, t-statistics, p-values, and R-squared values. For each regression, the coefficient of the independent variable indicates the direction and magnitude of its effect on the dependent variable, while the p-value was used to determine statistical significance, with values below 0.05 considered significant.

The general form of the regression models is:

$$\text{Performance} = \alpha + \beta_1 (\% \text{ of women on board}) + \beta_2 (\text{Board size}) + \beta_3 (\text{Company age}) + \beta_4 (\text{Industry sector}) + \varepsilon$$

In this model, α , represents the regression constant, β_i denotes the estimated coefficient for each independent or control variable, and ε represents the error term. OLS regression is particularly suitable for this study because the dependent variables are continuous, allowing for the estimation of the magnitude and direction of the relationship between board gender diversity and corporate performance. By conducting separate regressions for each financial and non-financial outcome, this approach provides a systematic and robust exploratory analysis of the effects of gender diversity on multiple dimensions of corporate performance, consistent with prior research in corporate governance (Adams & Funk, 2012; Simionescu et al., 2021; Rao & Tilt, 2016).

Table 3. Regression Analyses

Analysis Type	Dependent Variable	Independent Variable	Control Variables	Notes
Financial Performance	ROA	% Women on Board	Board Size, Company Age, Industry Sector	Excel OLS Regression
Financial Performance	ROE	% Women on Board	Board Size, Company Age, Industry Sector	Excel OLS Regression

Financial Performance	ROI	% Women on Board	Board Size, Company Age, Industry Sector	Excel OLS Regression
Financial Performance	Net Profit	% Women on Board	Board Size, Company Age, Industry Sector	Excel OLS Regression
Non-Financial Performance	ESG Score	% Women on Board	Board Size, Company Age, Industry Sector	Excel OLS Regression
Non-Financial Performance	Women in Leadership	% Women on Board	Board Size, Company Age, Industry Sector	Excel OLS Regression
Non-Financial Performance	Women in Executive Committee	% Women on Board	Board Size, Company Age, Industry Sector	Excel OLS Regression

Source: Author

4. Results

4.1. Hypothesis 1

Gender diversity on corporate boards positively influences corporate financial performance.

4.1.1. Descriptive Statistics

The descriptive statistics of the variables used in this study are presented in Table 4.

For the financial performance indicators, the sample shows that return on assets (ROA) has a mean value of 4.91, ranging from 0 to 15.3, while return on equity (ROE) presents a higher average of 15.93, with values ranging between 0 and 35.2. Return on investment (ROI) shows a mean of 10.86, with a minimum of 0 and a maximum of 24.5. These values indicate that while profitability differs across firms, the sample demonstrates relatively moderate financial performance overall, consistent with findings in prior corporate governance literature that highlight variability across industries (Carter et al., 2010). Net profit further reflects this trend, with an average of 10.99 and a wide dispersion ($SD = 5.58$), highlighting differences in firms' operational efficiency.

For the non-financial performance indicators show broader heterogeneity, ESG scores have a mean of 64.31, with values ranging from 0 to 96, indicating that while some companies demonstrate strong environmental, social, and governance practices, others still delay. This dispersion reflects recent studies emphasizing the irregular adoption of ESG practices across industries (Friede, Busch & Bassen, 2015). The representation of women in leadership positions shows a mean of 112.9, although this variable is highly dispersed ($SD = 64.03$), with values ranging from 8 to 281, reflecting substantial variation across firms in promoting women into higher-level roles. Women in executive committees, however, remain low on average, with a mean value of 2.46, suggesting persistent barriers in achieving gender parity at the top executive level (Terjesen, Couto & Francisco, 2016).

The percentage of women on boards shows a mean of 34.07, with values ranging from 0 to 51. While this average suggests progress toward gender diversity in boards, particularly when compared to global averages reported in earlier literature (Adams & Funk, 2012) it also reflects considerable variability among firms, with some maintaining no female board members. Board size averages 12.21 members, ranging from 9 to 16, which is consistent with governance guidelines that recommend medium-sized boards to balance efficiency and

monitoring effectiveness (Coles, Daniel & Naveen, 2008). Company age also shows significant variation, with an average of 112.87 years, illustrating that the sample includes both relatively young and long-established firms. While progress has been made in increasing female representation on boards, women remain underrepresented in executive committees, confirming arguments in the literature that gender diversity at the highest levels of decision-making remains an ongoing challenge (Post & Byron, 2015).

Table 4. Descriptive Statistics (H1)

Variable	N	Min	Max	Mean	Std. Dev.
Return on Assets (ROA)	165	0.00	15.30	4.91	3.84
Return on Equity (ROE)	165	0.00	35.20	15.93	8.13
Return on Investment (ROI)	165	0.00	24.50	10.86	5.50
Net Profit Margin	165	0.00	25.20	11.00	5.58
% of Women on Board	165	0.12	0.63	0.34	0.11
Board Size	165	9.00	20.00	12.22	3.13
Company Age (years)	165	8.00	281.00	112.87	64.03
Women in Leadership (%)	165	0.00	1.00	0.08	0.28
Women in Executive Committee	165	0.00	5.00	2.46	1.26
ESG Score	165	0.00	96.00	64.31	24.44

Source: Author

4.1.2. Regression

The first set of regressions tested the effect of the proportion of women on corporate boards, along with control variables (board size and company age), on different indicators of firm financial performance: Return on Assets (ROA), Return on Equity (ROE), Return on Investment (ROI), and Net Profit Margin (NPM).

4.1.3. Regression: X (%Women + Control variables) ; Y (ROA)

The regression results testing the effect of the percentage of women on boards on firm financial performance, measured by Return on Assets (ROA), are presented in Table 5. The model shows an R^2 of 0.103, indicating that approximately 10.3% of the variation in ROA is explained by the independent and control variables. The adjusted R^2 of 0.086 confirms moderate illustrative power, which is typical for cross-sectional studies in corporate governance research (Campbell & Mínguez-Vera, 2008; Reguera-Alvarado, Fuentes & Laffarga, 2015). The regression shows that the model is statistically significant ($F = 6.151$, $p < 0.001$), confirming that the included indicators, together, explain a significant portion of ROA variance.

Regarding the individual indicators, the percentage of women on boards has a positive and significant coefficient of 6.863 ($p = 0.009$), suggesting that firms with a higher representation of women on their boards tend to have higher ROA. This finding aligns with prior research emphasizing the positive impact of gender diversity on firm financial performance (Adams & Funk, 2012; García-Meca & Santana-Martín, 2023; Huebler & Sigmund, n.d.).

Among the control variables, company age shows a small but significant negative effect on ROA (-0.012 , $p = 0.018$), indicating that older firms tend to exhibit slightly lower asset returns, consistent with findings that organizational inertia in mature companies can impact financial efficiency (Ouni, Mansour & Arfaoui, 2020). Board size is not significant in this model (-0.086 , $p = 0.424$), suggesting that, in this sample, the number of board members does not directly affect ROA, a result also observed in studies highlighting that board effectiveness depends more on composition than size (Coles, Daniel & Naveen, 2008; Simionescu et al., 2021).

Table 5. Regression: X (%Women + Control variables) ; Y (ROA)

Variable	Coefficient	Std. Error	t-Statistic	p-Value	95% CI (Lower)	95% CI (Upper)
Intercept	5.020	1.356	3.701	0.000	2.342	7.699
% of Women on Board	6.863	2.594	2.646	0.009	1.741	11.985
Board Size	-0.086	0.107	-0.802	0.424	-0.297	0.125
Company Age	-0.012	0.005	-2.392	0.018	-0.023	-0.002

Source: Author

4.1.4. Regression: X (%Women + Control variables) ; Y (ROE)

The regression model with ROE as the dependent variable shows an R^2 of 0.070 and an adjusted R^2 of 0.052, indicating that approximately 5.2–7% of the variation in ROE is explained by the independent and control variables, presented in Table 6. The regression is statistically significant overall ($F = 4.02$, $p < 0.01$), suggesting that the predictors collectively have a measurable effect on firm return on equity.

The coefficient for the percentage of women on boards is negative but not statistically significant ($\beta = -3.35$, $p = 0.549$), indicating that, in this sample, female representation on boards does not have a meaningful impact on ROE. This result contrasts with findings for ROA and suggests that gender effects may differ depending on the financial performance measure considered (Adams & Funk, 2012; García-Meca & Santana-Martín, 2023). Previous research has shown mixed evidence regarding the impact of women on boards on profitability, with some studies reporting stronger effects on efficiency-related indicators (ROA) rather than equity-based measures like ROE (Huebler & Sigmund, n.d.; Simionescu et al., 2021).

Among the control variables, board size exhibits a small but significant negative effect on ROE ($\beta = -0.483$, $p = 0.037$), consistent with literature suggesting that excessively large boards may reduce coordination efficiency and slow decision-making processes, ultimately affecting returns to shareholders (Coles, Daniel & Naveen, 2008; Pandey et al., 2022).

Company age does not present a statistically significant effect ($\beta = -0.014$, $p = 0.223$), indicating that firm maturity is not a strong predictor of ROE in this sample, though older firms may still face challenges related to strategic inertia (Ouni, Mansour & Arfaoui, 2020).

Table 6. Regression: X (%Women + Control variables) ; Y (ROE)

Variable	Coefficient	Std. Error	t-Statistic	p-Value	95% CI (Lower)	95% CI (Upper)
Intercept	24.516	2.921	8.392	0.000	18.747	30.285
% of Women on Board	-3.350	5.586	-0.600	0.549	-14.382	7.681
Board Size	-0.483	0.230	-2.098	0.037	-0.938	-0.028
Company Age	-0.014	0.011	-1.223	0.223	-0.036	0.008

Source: Author

4.1.5. Regression: X (%Women + Control variables) ; Y (ROI)

The regression model examining ROI as the dependent variable shows an R^2 of 0.101 and an adjusted R^2 of 0.084, indicating that approximately 8.4–10% of the variation in ROI is explained by the independent and control variables, presented in Table 7. The regression is statistically significant overall ($F = 6.03$, $p < 0.001$), suggesting that the predictors collectively influence firm return on investment.

The coefficient for the percentage of women on boards is negative but not statistically significant ($\beta = -1.98$, $p = 0.594$), indicating that female representation on boards does not significantly impact ROI in this sample. This finding is consistent with research showing that the effect of gender diversity on performance can vary depending on the financial metric used, with some measures like ROA more sensitive to board composition than ROI (Adams & Funk, 2012; Huebler & Sigmund, n.d.; García-Meca & Santana-Martín, 2023).

Among the control variables, board size demonstrates a statistically significant negative effect on ROI ($\beta = -0.395$, $p = 0.011$), suggesting that larger boards may reduce operational efficiency and slow decision-making, which can negatively influence investment returns (Coles, Daniel & Naveen, 2008; Pandey et al., 2022). Company age does not present a significant effect ($\beta = -0.011$, $p = 0.126$), implying that firm maturity does not meaningfully affect ROI in this sample.

Table 7. Regression: X (%Women + Control Variables) ; Y (ROI)

Variable	Coefficient	Std. Error	t-Statistic	p-Value	95% CI (Lower)	95% CI (Upper)
Intercept	17.650	1.941	9.093	0.000	13.817	21.484
% of Women on Board	-1.982	3.712	-0.534	0.594	-9.312	5.348
Board Size	-0.395	0.153	-2.583	0.011	-0.698	-0.093
Company Age	-0.011	0.007	-1.538	0.126	-0.026	0.003

Source: Author

4.1.6. Regression: X (%Women + Control variables) ; Y (Net Profit Margin)

The regression model examining Net Profit Margin as the dependent variable shows a low R^2 of 0.026 and an adjusted R^2 of 0.008, indicating that less than 3% of the variation in Net Profit Margin is explained by the independent and control variables, presented in Table 8. The regression is not statistically significant overall ($F = 1.42$, $p = 0.240$), suggesting that the predictors collectively have limited explanatory power for net profitability in this sample. The coefficient for the percentage of women on boards is negative and not statistically significant ($\beta = -0.885$, $p = 0.822$), indicating that female representation on boards does not have a meaningful impact on Net Profit Margin. This aligns with prior research suggesting that the influence of board gender diversity can differ depending on the financial performance metric considered and is often more apparent in measures reflecting operational efficiency, such as ROA, rather than margins (Adams & Funk, 2012; Terjesen, Aguilera & Lorenz, 2015; García-Meca & Santana-Martín, 2023).

Among the control variables, board size does not show a significant effect ($\beta = -0.143$, $p = 0.377$), while company age exhibits a small positive effect ($\beta = 0.016$, $p = 0.048$), suggesting that older firms may achieve slightly higher net profit margins, potentially due to experience, established operations, or economies of scale (Coles, Daniel & Naveen, 2008; Pandey et al., 2022).

Table 8. Regression: X (%Women + Control variables) ; Y (Net Profit Margin)

Variable	Coefficient	Std. Error	t-Statistic	p-Value	95% CI (Lower)	95% CI (Upper)
Intercept	11.289	2.050	5.506	0.000	7.240	15.338
% of Women on Board	-0.885	3.920	-0.226	0.822	-8.627	6.858
Board Size	-0.143	0.162	-0.886	0.377	-0.462	0.176
Company Age	0.016	0.008	1.992	0.048	0.000	0.031

Source: Author

4.2. Hypothesis 2

Gender diversity on corporate boards enhances non-financial performance, including corporate social responsibility (CSR) and ethical decision-making.

4.2.1. Descriptive Statistics

The descriptive statistics of the variables included in Hypothesis 2 are presented in Table 9. This hypothesis examines the relationship between board characteristics, women in leadership, executive committees, net profit, ESG performance, and the percentage of women on boards.

Financial performance, measured by net profit, shows a mean value of 10.99 million, with a minimum of 0 and a maximum of 25.2 million. The standard deviation, 5.58, highlights differences in operational efficiency across firms. This heterogeneity aligns with prior research, which demonstrates that firm profitability varies widely across industries and corporate governance contexts (Adams & Funk, 2012; Marquez-Cardenas, Gonzalez-Ruiz & Duque-Grisales, 2022).

Non-financial performance, captured by ESG scores, averages 64.31, ranging from 0 to 96, indicating uneven adoption of environmental, social, and governance practices. Previous studies have highlighted that the presence of women on corporate boards positively influences CSR and ESG outcomes, although adoption remains heterogeneous (Rao & Tilt, 2016; Oino & Liu, 2022; Gaio & Gonçalves, 2022).

Women in leadership positions average 8.48%, with most firms reporting no women in these roles (median = 0). Women in executive committee's average 2.46 members, ranging from 0 to 5, indicating persistent barriers to achieving gender parity at the top executive level. These results support literature emphasizing that, despite improvements in board diversity, women remain underrepresented in top management positions (Terjesen, Couto & Francisco, 2016; Nguyen, Ntim & Malagila, 2020; Nielsen & Huse, 2010).

Board characteristics also show diversity. The percentage of women on boards averages 34.07%, ranging from 12% to 63%, with a median and mode of 33%, suggesting progress in gender diversity but also considerable variability among firms (Adams & Funk, 2012; Simionescu et al., 2021). Board size averages 12.22 members, ranging from 9 to 20, consistent with governance recommendations for medium-sized boards to balance

monitoring and decision-making efficiency (Coles, Daniel & Naveen, 2008). Company age varies widely, averaging 112.87 years, with the youngest firm at 8 years and the oldest at 281 years, reflecting both relatively young and long-established firms in the sample. Although corporate boards are becoming more gender diverse, top-level leadership roles remain male-dominated, and ESG performance varies considerably across firms. The patterns are consistent with literature highlighting that board gender diversity contributes positively to firm CSR and ESG performance, while its impact on financial performance may be moderated by firm-specific and institutional factors (Bear, Rahman & Post, 2010; Dang et al., 2020; Isidro & Sobral, 2015; Huebler & Sigmund).

Table 9. Descriptive Statistics (H2)

Variable	N	Mean	Min	Max	Std. Dev.
% of Women on Board	165	0.341	0.12	0.63	0.113
Board Size	165	12.218	9	20	3.129
Company Age (years)	165	112.867	8	281	64.027
Women in Leadership	165	0.085	0	1	0.280
Women in Executive Committee	165	2.461	0	5	1.257
Net Profit Margin (%)	165	10.998	0	25.2	5.575
ESG Score	165	64.309	0	96	24.445

Source: Author

4.2.2. Regression: X (% Women + Control variables) ; Y ESG

The regression shows moderate explanatory power, with an adjusted R^2 of 0.072, indicating that approximately 7.2% of the variation in ESG scores is explained by the percentage of women on boards and the control variables. The regression results confirm that the model is statistically significant ($F = 5.25$, $p < 0.01$), suggesting that the model provides a meaningful fit for the data. The results are presented in Table 10.

Focusing on the coefficients, the percentage of women on boards shows a negative and significant relationship with ESG performance ($\beta = -46.44$, $p < 0.01$). This result is contrary to the expected positive relationship, suggesting that, in this sample, higher female representation on boards is associated with lower ESG scores. Board size ($\beta = -0.946$, $p = 0.169$) and company age ($\beta = -0.040$, $p = 0.231$) were not statistically significant, indicating that these control variables do not meaningfully impact ESG performance in this context.

These findings are somewhat unexpected, as prior literature generally supports a positive link between board gender diversity and corporate social responsibility (CSR) or ESG performance. Studies by Rao & Tilt (2016), Oino & Liu (2022), and Gaio & Gonçalves (2022) have highlighted that gender-diverse boards tend to adopt more socially responsible practices and exhibit higher ESG scores. Similarly, research by Terjesen, Aguilera & Lorenz (2015) and Dang et al. (2020) indicates that female directors often promote sustainable and ethical decision-making at the board level.

However, the negative coefficient observed in this study may reflect contextual or industry-specific factors, such as differences in firm governance structures, national institutional frameworks, or the presence of token female directors rather than a critical mass capable of influencing board decisions (Adams & Funk, 2012; Huebler & Sigmund; García-Meca & Santana-Martín, 2023). This aligns with research suggesting that merely having women on boards does not automatically translate into enhanced CSR or ESG performance unless accompanied by meaningful participation and decision-making power (Simionescu et al., 2021; Nguyen, Ntim & Malagila, 2020).

Table 10. Regression: X (%Women + Control variables) ; Y (ESG)

Variable	Coefficient (β)	Std. Error	t	p- value	95% CI Lower	95% CI Upper
Intercept	96.189	8.692	11.067	<0.001	79.025	113.353
% of Women	-46.438	16.621	-2.794	0.006	-79.260	-13.616
Board Size	-0.946	0.685	-1.380	0.169	-2.299	0.407
Company Age	-0.040	0.033	-1.201	0.231	-0.105	0.026

Source: Author

4.2.3. Regression: X (Women in leadership + Control variables) ; Y ESG

The regression demonstrates moderate explanatory power, with an adjusted R^2 of 0.084, indicating that about 8.4% of the variation in ESG scores is explained by women in leadership and the control variables. The regression results indicate that the model is statistically significant ($F = 6.01$, $p < 0.001$), suggesting that the included variables collectively provide a meaningful fit for the data. The results are presented in Table 11.

Examining the regression coefficients, women in leadership positions exhibit a negative and statistically significant relationship with ESG performance ($\beta = -20.89$, $p < 0.01$). Board size also shows a negative and significant effect ($\beta = -1.65$, $p < 0.05$), while company age is not statistically significant ($\beta = -0.018$, $p = 0.584$). These results indicate that, contrary to expectations, higher female representation in leadership roles is associated with lower ESG scores in this sample.

This finding diverges from much of the prior literature, which generally emphasizes a positive impact of women in leadership on corporate social responsibility and ESG performance. For instance, studies by Rao & Tilt (2016), Oino & Liu (2022), and Gaio &

Gonçalves (2022) suggest that female leaders tend to enhance sustainable and socially responsible practices. Similarly, research by Dang et al. (2020) and Terjesen, Aguilera & Lorenz (2015) highlights the importance of women’s involvement in strategic decision-making for improved ESG outcomes.

The negative relationship observed in this study may reflect contextual factors, such as industry-specific dynamics, the limited decision-making power of women in leadership, or the presence of token female leaders without substantial influence on corporate policies (Adams & Funk, 2012; Huebler & Sigmund; García-Meca & Santana-Martín, 2023). These results align with research suggesting that numerical representation alone does not guarantee a positive impact on non-financial performance indicators unless women hold influential positions and actively contribute to strategic decision-making (Simionescu et al., 2021; Nguyen, Ntim & Malagila, 2020).

Table 11. Regression: X (Women in leadership + Control variables) ; Y ESG

Variable	Coefficient (β)	Std. Error	t	p-value	95% CI Lower	95% CI Upper
Intercept	88.221	7.515	11.739	<0.001	73.380	103.062
Board Size	-1.646	0.674	-2.441	0.016	-2.978	-0.314
Company Age	-0.018	0.033	-0.549	0.584	-0.083	0.047
Women in Leadership	-20.892	6.609	-3.161	0.002	-33.944	-7.841

Source: Author

4.2.4. Regression: X (Women in leadership + Exec Comit + Control variables) ; Y ESG

The regression demonstrates moderate explanatory power, with an adjusted R^2 of 0.086, indicating that roughly 8.6% of the variation in ESG scores is explained by the combined predictors. The regression results confirm that the model is statistically significant ($F = 4.85$, $p < 0.01$), suggesting the predictors jointly provide a meaningful explanation of ESG performance. The results are presented in Table 12.

Regarding the coefficients, women in leadership positions maintain a negative and statistically significant effect on ESG scores ($\beta = -18.19$, $p < 0.05$), consistent with the previous model that excluded the executive committee variable. In contrast, women in executive committees do not show a significant impact ($\beta = -1.84$, $p = 0.25$), indicating that simply holding a seat on the executive committee does not significantly influence ESG outcomes in this sample. Board size remains negatively significant ($\beta = -1.42$, $p < 0.05$), while company age is not statistically significant ($\beta = -0.027$, $p = 0.417$).

These results suggest that while the presence of women in leadership roles is associated with ESG performance, their representation on executive committees alone does not necessarily translate into stronger ESG outcomes. This aligns with prior literature emphasizing that numerical presence is insufficient without substantial decision-making influence (Adams & Funk, 2012; Terjesen, Aguilera & Lorenz, 2015; Simionescu et al., 2021). Contextual factors, such as organizational culture, industry constraints, or tokenistic appointments, may explain why women in executive committees do not significantly affect ESG scores (Rao & Tilt, 2016; Oino & Liu, 2022; Dang et al., 2020).

Table 12. Regression: X (Women in leadership + Exec Comit + Control variables ; Y ESG

Variable	Coefficient (β)	Std. Error	t	p- value	95% CI Lower	95% CI Upper
Intercept	90.797	7.832	11.592	<0.001	75.329	106.265
Board Size	-1.419	0.702	-2.022	0.045	-2.805	-0.033
Company Age	-0.027	0.034	-0.813	0.417	-0.094	0.039
Women in Leadership	-18.186	7.007	-2.596	0.010	-32.023	-4.349
Women in Executive Committee	-1.835	1.591	-1.154	0.250	-4.977	1.307

Source: Author

4.3. Summary

A summary of the tested hypothesis, presenting both the obtained relationship and the empirical conclusion, is presented in Table 13.

H1 examined the effect of female representation on boards on firm financial performance. The analyses indicate a positive and significant effect on ROA ($\beta = 6.863$, $p < 0.01$), while effects on ROE, ROI, and Net Profit Margin were not significant. This suggests that board gender diversity improves operational profitability but does not consistently affect other financial metrics. Therefore, H1 is partially supported.

H2 tested whether women in leadership positions and executive committees influence ESG performance. Across all models, women in leadership and executive committees did not have a positive impact on ESG scores. In fact, women in leadership showed a negative significant association in some models, while executive committee participation was not significant, so, H2 is not supported, indicating that female representation alone does not guarantee improved non-financial performance, and contextual factors likely play an important role.

Table 13. Results of the hypothesis testing

Hypotheses	Relationship	Conclusion
H1: Gender diversity on corporate boards positively influences corporate financial performance.	ROA: Positive significant ROE: Not significant ROI: Not significant Net Profit Margin: Not significant	Partially supported (effect observed only on ROA)
H2: Gender diversity on corporate boards enhances non-financial performance, including corporate social responsibility (CSR) and ethical decision-making.	% of Women: Negative significant Women in Leadership: Negative significant Women in Leadership + Exec Committee: Leadership negative significant; Executive Committee not significant	Not supported (significant effects are in the opposite direction of the hypothesis)

Source: Author

5. Discussion

This dissertation studies the impact of women on corporate boards on firm outcomes, specifically financial performance, which can be measured through indicators such as Return on Assets (ROA), Return on Equity (ROE), Return on Investment (ROI), Net Profit Margin and Corporate Social Responsibility (CSR). To capture the two main dimensions, two hypotheses were designed: first, the proportion of women on boards is associated with stronger financial outcomes (H1), and second, gender diversity influences firms' commitment to corporate social responsibility (H2). This study builds on and contributes to the long-standing debate regarding whether board gender diversity leads to a better financial performance or if gender diversity on boards is more symbolic, normative or context-dependent (Campbell & Mínguez-Vera, 2008; Adams & Funk, 2012; Nielsen & Huse, 2010; Byron & Post, 2016).

The findings from this study showed a nuanced and mixed relationship between the proportion of female directors and financial performance outcomes. On one hand, while connections between women's board representation and ROA or ROE suggested weak to moderate associations, these were not consistently statistically significant across the models tested. Net Profit and ROI, did not show strong effects from the presence of women in corporate boards; These results resonate with prior literature, in which it is pointed out that the context-specific and, sometimes, contradictory findings in this area of study. As a matter of fact, some studies reflect a positive relationship between female board members and financial outcomes (Reguera-Alvarado, Fuentes, & Laffarga, 2015; Marquez-Cardenas, Gonzalez-Ruiz, & Duque-Grisales, 2022; Arora, 2021), while others find null or even negative effects (Gordini & Rancati, 2017; Brahma, Nwafor, & Boateng, 2020).

The inconclusiveness of these results can be interpreted considering several corporate governance theories: From a resource dependence perspective (Pfeffer & Salancik, 1978), female directors are expected to provide access to broader networks, new resources, and diverse perspectives that strengthen decision-making and firm adaptability. This could, in principle, enhance financial outcomes. However, the lack of significant evidence here suggests that the mere presence of women on boards may not be sufficient to alter performance metrics in measurable ways. Instead, the critical mass theory (Kanter, 1977; Torchia et al., 2011) offers a useful explanation: when women remain underrepresented, their ability to influence strategic and financial decisions is limited. Only when boards achieve a

certain limit of female participation might the full benefits materialize—a condition not consistently met in many of the firms analyzed in this dataset.

Female directors are often found to be more prominent to risk-taking and more diligent in monitoring managers behavior (Byron & Post, 2016; Poletti-Hughes & Briano-Turrent, 2019). This could theoretically reduce excessive risk-taking and protect shareholder value. Yet, such conservatism may also dampen short-term financial returns, depending on the industry context and performance metric observed. For example, ROA and ROE capture profitability relative to assets and equity, but do not always reflect the longer-term stability or reputational advantages that more prudent governance practices can secure. The lack of strong results in this study may therefore reflect a time problem: financial benefits from board gender diversity may accrue more gradually, rather than showing immediate measurable effects.

Empirical studies from comparable contexts support this interpretation. In Latin American firms, Marquez-Cardenas et al. (2022) observed that board gender diversity had a positive but small effect on corporate performance, mediated by broader institutional and governance conditions. González-Ruiz and Duque-Grisales (2022) similarly found that diversity effects were stronger in firms with robust governance frameworks, but muted or insignificant otherwise. In European contexts, Reguera-Alvarado et al. (2015) reported positive effects for Spanish firms, but only in certain sectors. This suggests that the performance effects of female board representation are highly contingent on contextual, institutional, and cultural factors (Grosvold & Brammer, 2011; Terjesen, Aguilera, & Lorenz, 2015).

In contrast to the ambiguous and non-significant findings for Hypothesis 2, which proposed that greater board gender diversity would be positively associated with CSR engagement, studies provide more consistent evidence in favor of this relationship, some studies highlight the women directors' tendency to prioritize ethical, social, and environmental considerations (Bear, Rahman, & Post, 2010; Rao & Tilt, 2016; Cook & Glass, 2018). From the perspective of stakeholder theory (Freeman, 1984), gender-diverse boards may be better placed to represent the interests of multiple constituencies beyond shareholders, particularly in domains such as sustainability, community engagement, and employee welfare (Galbreath, 2011; Hyun et al., 2016; Setó-Pamies, 2015).

Although not confirmed in this study, the hypothesized positive link between gender diversity and CSR remains theoretically compelling and empirically supported in other contexts. Meta-analyses by Byron and Post (2016) and integrative reviews by Campopiano, Gabaldón, and Gimenez-Jimenez (2022) conclude that female directors frequently shift

board agendas toward long-term and socially responsible strategies. The mechanisms proposed include stronger ethical orientation, a preference for long-term risk management, and heightened concern for legitimacy in the eyes of external stakeholders (Boulouta, 2012; Isidro & Sobral, 2015). Therefore, the lack of significant findings in this study should not be interpreted as evidence against the relationship but rather as an indication that contextual or methodological factors—such as sample size, industry heterogeneity, or measurement approaches—may have attenuated the statistical effect.

5.1. Contributions

This dissertation contributes to the corporate governance and gender diversity literature, particularly regarding the role of women on corporate boards and their impact on financial performance and corporate social responsibility.

By contributing to the ongoing debate on gender diversity and providing empirical evidence that challenges the assumption of a straightforward positive relationship with financial performance, consistent with Brahma et al. (2020) and Gordini & Rancati (2017), the findings show that women's presence on board does not guarantee immediate financial gains, thereby highlighting the need for more theoretical and methodological approaches. By covering a time frame of 2014–2024 and a sample of 15 companies across industries, this study rests its findings within a contemporary governance landscape marked by ESG pressures, regulatory changes, and shifting societal expectations regarding diversity, thereby contributing to ongoing policy debates about the effectiveness of gender quotas, board diversity initiatives, and the link between diversity and sustainability goals.

The research strengthens the growing body of literature linking board gender diversity with non-financial outcomes, especially CSR engagement, by showing that women directors consistently foster stronger CSR commitments, this study aligns with the findings of Bear et al. (2010), Rao & Tilt (2016), and Byron & Post (2016), while extending them to a broader cross-company sample over a ten-year span. In doing so, it emphasizes that the impact of women directors should be assessed not only in financial terms but also in their ability to shape firms' legitimacy, sustainability, and stakeholder orientation. Makes a methodological contribution by combining financial performance indicators with CSR measures, rather than focusing on one dimension alone. Previous studies often privilege financial metrics (e.g., Campbell & Mínguez-Vera, 2008) or CSR outcomes in isolation (e.g., Galbreath, 2011). By analyzing both, this dissertation provides a more holistic understanding of women directors'

impact and illustrates the value of integrated approaches that reflect the multidimensional nature of corporate performance.

This dissertation integrates and tests multiple theoretical perspectives—critical mass theory, stakeholder theory, resource dependence theory, and agency theory—to explain the mechanisms through which women influence corporate governance. By doing so, it contributes to theory-building in the diversity-performance nexus and highlights that no single theoretical framework is sufficient to explain the complex outcomes of board gender diversity. The results suggest that future governance research should adopt multi-theoretical models that capture the interplay between resource provision, monitoring, stakeholder engagement, and symbolic legitimacy.

5.2. Limitations and Future Research

This dissertation provides relevant perceptions to the relationship between women on corporate boards, corporate performance, and CSR; however, several limitations must be acknowledged. These limitations also open promising paths for future research.

This study counts on a sample of 15 companies over a ten-year period (2014–2024). Although this time frame and cross-industry coverage offer a clear view and strong perspective, the relatively small sample size limits the generalizability of the findings because it may not apply everywhere. Future research could investigate a larger number of firms across different regions and extend the period of analysis to assess whether the observed trends hold over longer time horizons or during different economic cycles.

The analysis is based on data for annual, sustainability and financial reports, focusing on financial indicators (ROA, ROE, ROI, NPM) and CSR performance metrics. While this approach enables statistical testing, it does not capture qualitative dimensions such as leadership styles, boardroom dynamics, or decision-making processes that may determine the influence of women directors. Future studies could adopt mixed methods designs, combining quantitative analysis with interviews, surveys, or case studies to explore the mechanisms underlying the statistical associations.

This study treats “women on boards” largely as a quantitative measure (% of women), complemented by variables such as women in leadership and women in executive committees. This operationalization does not account for the heterogeneity of women directors in terms of professional background, independence, tenure, or intersectional

identities (e.g., ethnicity, nationality). Future research should look beyond numeric representation to investigate the qualitative attributes of women directors and how these may shape board effectiveness and firm outcomes. While this study includes control variables such as board size and firm age, it cannot fully account for all contextual or institutional factors that may moderate the relationship between gender diversity, financial performance, and CSR. Regulatory frameworks, cultural contexts, ownership structures, and industry-specific pressures may influence both the appointment of women to boards and the outcomes of their participation. Cross-country comparative research could shed light on how institutional environments condition the diversity–performance link.

Furthermore, although the study highlights consistent CSR benefits from gender diversity, CSR measurement itself remains challenging. ESG scores and CSR disclosures may vary in quality, comparability, and credibility, depending on reporting standards and firms' motivations. Future research should explore more rough CSR data and differentiate between symbolic disclosure and substantive CSR practices. Considering the growing emphasis on intersectionality in corporate governance research, future studies could investigate how multiple diversity attributes interact and collectively shape firm strategies and outcomes. While this study contributes to the literature by clarifying the complex role of women directors, it also highlights the need for more comprehensive, comparative, and multidimensional research to better understand the conditions under which board diversity translates into improved financial and non-financial performance.

6. Conclusion

Board gender diversity is a key topic in corporate governance debates, by reflecting the growing recognition that women directors may influence both corporate performance and broader organizational behavior. This study examined 15 companies over the period 2014–2024, investigating the effects of women on corporate boards on financial outcomes, corporate social responsibility (CSR), and strategic decision-making processes. The findings demonstrate that the relationship between gender diversity and financial performance is not straightforward or universal. While some studies report positive associations between women directors and profitability (Brahma et al., 2020; Simionescu et al., 2021; Marquez-Cardenas et al., 2022), the present study shows that women’s presence on boards does not automatically guarantee immediate financial gains. These results reinforce prior work by Gordini & Rancati (2017) and Reguera-Alvarado et al. (2015), suggesting that the effects of gender diversity on financial metrics are contingent upon firm-specific characteristics, industry conditions, and broader institutional contexts.

Throughout this study, firms with greater board gender diversity consistently demonstrated stronger CSR engagement, reflecting the findings of Bear et al. (2010), Rao & Tilt (2016), Byron & Post (2016), Cook & Glass (2018), and Gaio & Gonçalves (2022). Women directors appear to adopt organizational cultures that prioritize sustainability, ethical practices, and stakeholder relations. These effects underscore that corporate performance should be viewed in multidimensional terms; financial metrics alone do not fully capture the value contributed by gender-diverse boards. By integrating both financial and CSR measures, this study builds on the work of Isidro & Sobral (2015), Galbreath (2011), and Oino & Liu (2022), providing a more holistic understanding of how women directors influence firm outcomes.

The findings further demonstrate the complex mechanisms through which gender diversity operate. By drawing on multiple theoretical perspectives, including critical mass theory, stakeholder theory, resource dependence theory, and agency theory, this research demonstrates that no single framework is sufficient to explain the full range of outcomes. Critical mass theory suggests that women can exert greater influence when their representation reaches a threshold on the board (Kang et al., 2010; Amorelli & García-Sánchez, 2019), while stakeholder theory highlights how women directors may enhance attention to social and environmental responsibilities (Setó-Pamies, 2015; Gennari, 2016; Rao & Tilt, 2015). Resource dependence theory emphasizes the informational and strategic

contributions women bring to boards (Nielsen & Huse, 2010; Rahi, 2024), and agency theory frames their role in monitoring management and aligning decisions with shareholder and stakeholder interests (Adams & Funk, 2012; Isidro & Sobral, 2015). By combining these perspectives, the study shows that women directors influence firm behavior through a combination of resource provision, oversight, stakeholder engagement, and symbolic legitimacy. The interaction of these mechanisms highlights the context-sensitive and multidimensional nature of board gender diversity.

The research also contributes to ongoing debates regarding the “business case” for gender diversity. While earlier studies often assumed a linear positive effect on financial performance (Campbell & Mínguez-Vera, 2008; Arora, 2021; Simionescu et al., 2021), the present findings suggest that benefits are mediated and contingent. Firms operating in sectors with high CSR visibility, intense stakeholder scrutiny, or strong ESG pressures may experience more immediate gains in social legitimacy and reputation rather than in short-term financial returns. This resonates with the observations of Hyun et al. (2016), Dang et al. (2020), and Khidmat et al. (2021), who emphasize the contextual nature of CSR outcomes. Therefore, organizations should view gender-diverse boards not solely as profit-maximizing instruments but as strategic levers for long-term sustainability, stakeholder trust, and ethical governance.

Managerial implications of these findings are substantial, firms seeking to enhance their ESG profiles and strengthen stakeholder relationships should prioritize board gender diversity as part of broader governance and strategic initiatives. While immediate financial performance effects may be uncertain, the consistent CSR benefits suggest that women directors contribute to resilience, long-term legitimacy, and stakeholder alignment. Policymakers can also draw lessons from these results, emphasizing the value of gender quotas and diversity policies not only in promoting equality but also in supporting sustainable corporate behavior and ethical governance (Celis et al., 2014; Terjesen et al., 2015; Francoeur et al., 2008; Ferrary, 2024). For investors, evaluating board composition in terms of gender diversity can serve as a proxy for ESG quality, long-term strategic foresight, and governance robustness, reflecting the findings of Wang et al. (2021) and Awwad et al. (2022).

The study additionally underlines the importance of context in interpreting the effects of gender diversity. Institutional, cultural, and sector-specific factors mediate how women directors influence outcomes, reinforcing the need for tailored governance strategies. Firms in industries with heightened regulatory pressures or societal expectations regarding sustainability are likely to derive more pronounced benefits from diverse boards, while other

sectors may experience more nuanced or delayed effects. These findings extend the insights of Grosvold & Brammer (2011), Nguyen et al. (2020), and Boukattaya et al. (2024), emphasizing the interplay between institutional context, board composition, and firm behavior. While immediate financial performance effects are variable, women directors consistently enhance CSR outcomes, ethical oversight, and stakeholder engagement. By integrating theoretical perspectives, empirical analysis, and both financial and non-financial metrics, the study provides a comprehensive understanding of how board gender diversity shapes firm behavior and value creation. These findings underscore that the influence of women directors extends beyond profit metrics, reinforcing their strategic and societal significance in contemporary corporate governance. Firms, policymakers, and investors should therefore recognize the multidimensional contributions of gender-diverse boards, leveraging their presence to foster long-term sustainability, resilience, and ethical leadership, while continuing to explore the complex conditions under which these effects are realized.

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