▪ Journal of Competitiveness

POLICY DISCLOSURE AS A PREDICTOR OF ENVIRONMENTAL BEHAVIOUR: EVIDENCE FROM THE CHILEAN RETAIL SECTOR

María José Ibáñez, Felipe Vásquez-Lavin, and Roberto D. Ponce Oliva

Abstract

This study examines the relationship between corporate environmental policy disclosures and firms' environmental investments. Using an endogenous switching probit (ESP) model to mitigate potential endogeneity issues, this study serves two purposes. Initially, it estimates the influence of six organizational characteristics—size, age, manager gender, export orientation, family ownership, and corporate group affiliation—on the probability of firms declaring pro-environmental policies. Subsequently, we test whether such policy disclosures are reliable predictors of environmental investment. We use the retail sector as a case study because of its pivotal role as an intermediary between primary producers, manufacturers, and consumers, thereby holding a uniquely influential position in driving sustainable consumption and production. Our results show a positive relationship between size, manager gender, export orientation, family ownership, and corporate group affiliation. In addition, we find that declaring an environmental policy positively affects the likelihood of businesses investing in environmental protection. This study contributes to the existing literature in three significant ways: it increases the evidence supporting a causal relationship between environmental policy disclosure and environmental investments; it is the first to explore this relationship within the retail industry; and it broadens our understanding of this dynamic in the context of developing countries.

Keywords: *retail industry; corporate environmental policy disclosure; environmental investment; active pro-environmental behaviors; environmental intention; firms' characteristics*

JEL Classification:M14, M19, M20, D23

Article history: Received: June 2024; Accepted: March 2024; Published: June 2024

1 INTRODUCTION

For businesses, governments, consumers, and scientists alike, recent structural changes brought about by environmental constraints, such as responses to climate change, pose new problems (Dietz et al., 2003; Whiteman et al., 2013). According to some estimates, environmental concerns could cause businesses and organizations to incur short-term cost hikes of up to US$120 billion (CDP, 2019). Thus, firms are compelled to act to reduce the environmental effects of their activities (Sharma & Sharma, 2011; Sharma & Ruud, 2003; Shrivastava, 1995; Shrivastava & Hart, 1995), for example, by declaring environmental policies (Bilal et al., 2023) and implementing pollution prevention techniques (Hart & Dowell, 2011; King & Lenox, 2002; Sharma & Henriques, 2005). This study illuminates the relationship between policy disclosure and firms' environmental behavior.

We distinguish between active and passive environmental behaviors. Passive environmental behavior is when companies engage in the responsible use of natural resources or reduce their environmental impact by recycling and diminishing waste (without incurring expenses). Spending on clean production, environmental operations, and corporate environmental obligations, such as environmental investments, are examples of active environmental

behavior (Chang et al., 2015; Wang et al., 2015). Regardless of the type of environmental behavior, there is consensus in the literature about the positive relationship between firms' environmental behavior and financial performance (Albertini, 2013). However, some evidence suggests that this positive relationship is time-dependent (Hang et al., 2019).

A corporate environmental policy is a formal declaration by a firm detailing its commitment to environmental conservation. It communicates its ecological intentions to stakeholders, establishes a foundation for environmental objectives, and motivates the workforce. It outlines a company's ecological stance and goals for future sustainable growth and capability enhancement (Kuk et al., 2005). Furthermore, environmental policy disclosures may have symbolic value (such as transparency) or substantial value in providing relevant information to shareholders and other stakeholders (Gerged et al., 2021). In either case, the evidence suggests that providing environmental information positively affects firm value (Broadstock et al., 2018; Plumlee et al., 2015).

Societal actors, including businesses and organizations, must shift from policy disclosure to environmental behavior to address critical and global concerns. Despite the relevance of this transition, more evidence on the relationship between corporate environmental policy disclosures and firms' active environmental behavior is needed. Our review shows that most previous evidence relates to the relationship between corporate environmental policy and gender (Dai et al., 2018; Xie et al., 2020; Zhang et al., 2023), employee behavior (Paillé & Raineri, 2015; Raineri & Paillé, 2016), shareholder value (Fernando et al., 2017), and financial performance (Gangi et al., 2020). The evidence related to policy disclosure includes the influence of firms' size, financial situation, ownership (D'Amico et al., 2016), cultural dimensions (Pucheta-Martínez & Gallego-Álvarez, 2020), corporate governance (Gerged, 2021), and board diversity (Peng et al., 2021). The evidence related to active environmental behavior (i.e., environmental investments) includes firm value (Halme & Niskanen, 2001; Shabbir & Wisdom, 2020), the influence of environmental regulations, and firm characteristics (Bhuiyan et al., 2021; Carballo-Penela & Castromán-Diz, 2015; García-Quevedo & Jové-Llopis, 2021; Hrovatin et al., 2016; Solnørdal & Foss, 2018). Some studies have analyzed the relationship between environmental performance and environmental disclosure (Doan & Sassen, 2020) and environmental disclosure and ESG performance (Khan, 2022; Olsen et al., 2021).

Most studies analyzing the relationship between corporate environmental policy disclosure and firms' environmental behavior relate to either greenwashing (de Freitas Netto et al., 2020; Delmas & Burbano, 2011; Seele & Gatti, 2017) or brownwashing (Huang et al., 2022; Montgomery & Robertson, 2022; Testa et al., 2018). Furthermore, there is little evidence assessing the influence of corporate environmental policy disclosures on actual actions, and this evidence has yielded mixed results. For instance, Ramus and Montiel (2005) found low adoption rates for specific environmental policies. Wolf and Floyd (2017) reported that the declaration of guidelines does not guarantee that companies will adopt pro-environmental behaviors. Pechancová et al. (2019) suggested that corporate environmental policy may encourage three levels of environmental management systems that lead to different environmentally responsible behaviors. In contrast, Guo et al. (2020) found that firms' environmental ethics, as a pro-environmental intention, positively influence the adoption of clean production and green innovation.

The evidence suggests that moving from policy disclosure to active environmental behavior is not guaranteed. For instance, firms can announce pro-environmental policies as symbolic acts driven by stakeholder pressure or normative requirements (Félonneau & Becker, 2008; Wolf & Floyd, 2017). Therefore, transitioning from environmental intention to active environmental behavior is a complex decision-making process that depends on several

factors, such as corporate environmental reputation goals, organizational environmental culture, firms' environmental conscientiousness, company performance/value expectations, and available resources for green practices (Biswas et al., 2021; Lee et al., 2018; Li et al., 2020; Morales-Raya et al., 2019).

The objectives of this study are twofold. First, we estimate the effect of six organizational characteristics—size, age, manager's gender, export orientation, family ownership, and corporate group affiliation—on the probability that firms declare pro-environmental intention through a corporate environmental policy. We then test whether environmental policy disclosure is a good predictor of active pro-environmental behavior. We employ an endogenous switching probit (ESC), a two-stage discrete choice model, using a sample of 2,376 Chilean firms. We discovered that firm size, manager gender, export activity, family ownership, and corporate group affiliation are significant characteristics influencing firms' pro-environmental intentions. This result holds for both general and retail subsamples. Furthermore, our findings indicate that policy disclosure is a reliable predictor of active pro-environmental behavior in both general and retail industries.

Notably, the retail sector operates in a distinctive manner. Firms in this industry procure inventory from various suppliers, often without the ability to exert significant influence on the origin or production methodology of goods. Moreover, these retail entities often lack comprehensive insight into sustainability aspects or the full scope of the supply chain involved (Ma et al., 2016). However, serving as a crucial link between primary producers, manufacturers, and consumers places retailers in a unique position to drive sustainable consumption and production.

Owing to the nature of their businesses, retailers significantly affect the environment, either indirectly or directly through the effects of their operations (Bradley, 2016; Brancoli et al., 2017; Miah et al., 2018). However, owing to its size, the retail industry has significant financial clout and the means to deal with environmental challenges. Scholars (Delai & Takahashi, 2013; Lai et al., 2010; Ma et al., 2016) suggest that retailers use three types of strategies to promote sustainable production and consumption: 1) managing the impacts of their operations by implementing environmental management systems, 2) managing the impacts throughout the value chain, and 3) educating consumers on topics related to sustainable consumption. Furthermore, Naidoo and Gasparatos (2018) outlined the most researched strategies within each area, with energy management, greenhouse gas emission reduction, integrated waste management, and water conservation being the most pertinent for this study. Consistent with evidence from other industries, there is a positive relationship between reporting and retail financial, operational, and market performances (Buallay, 2022).

This study contributes to the existing literature in three ways. First, we provide more evidence of the causal relationship between environmental policy disclosures and firms' active environmental behavior. Second, to the best of our knowledge, this is the first study to address the relationship between policy disclosure and environmental behavior in the retail industry. Finally, we contribute to the understanding of the link between environmental disclosure and behavior in developing countries.

From a practical standpoint, our findings emphasize the distinction between pro-environmental intention and behavior. We conclude that, while the declaration of a pro-environmental policy serves as a reliable predictor of pro-environmental actions, it does not guarantee that companies will allocate expenditures or investments to the declared aspects.

The remainder of this paper is as follows. In section two, we present the conceptual framework. Section three presents the research design. The results are presented in section

four. Section five discusses our findings in relation to previous evidence. Finally, section six presents the conclusions, implications, and avenues for future research.

2 CONCEPTUAL FRAMEWORK

Firms' intentions encapsulate their core values, vision, and organizational policies. These elements outline firms' expectations of their future trajectories (Gangi et al., 2020; Högström et al., 2018; Wolf & Floyd, 2017). Building on this idea, organizations often specify their stances on environmental responsibility by incorporating environmental policies into their corporate social responsibility (CSR) and corporate sustainability (CS) frameworks (Bansal, 2005; Carroll, 2015; Manes-Rossi & Nicolo', 2022; Shad et al., 2019). Thus, corporate environmental policy plays a crucial role, as these policies are not merely statements, but also proposed guidelines and action plans. Corporate policies help firms achieve targeted environmental objectives, aligning their broader intentions with their ecological commitments (Bjørn et al., 2022; Kuk et al., 2005; Lynch-Wood et al., 2009; Sánchez-Medina et al., 2014).

Announcing and disseminating environmental policies is part of firms' planning processes. The actual carrying out of those plans is related to firms' environmental behavior, which can be either active or passive. Moreover, to implement a corporate environmental policy, firms need to consider several factors for resource allocation and strategic planning, including the characteristics of the firm (e.g., size, age, and ownership structure), the availability of resources, and organizational objectives (Amahalu, 2019; Elmagrhi et al., 2019; Lawrence et al., 2018; Pareek et al., 2019). However, environmental consciousness is increasingly viewed as a socially desirable attribute. This pressure can sometimes lead companies to conform to social norms rather than genuinely adhere to environmental best practices (Clementino & Perkins, 2021; Félonneau & Becker, 2008). Therefore, companies may announce environmental policies merely as intentions. If they do not adopt actual environmental behaviors to support these policies, they risk engaging in greenwashing (Bernini & La Rosa, 2023; Delmas & Burbano, 2011). In this case, environmental policies can be used more for symbolic reasons than as practical guides for action (Johnstone & Hallberg, 2020; Wolf & Floyd, 2017).

We found limited research assessing the influence of corporate environmental policy disclosures on firms' active environmental behavior. Several studies have examined firm characteristics that influence the announcement of environmental policies as part of a CSR or CS management system (Gillan et al., 2021; Halkos & Nomikos, 2021; Solikhah & Maulina, 2021). Our research is distinctive because it assesses the effects of these variables on the willingness to disclose active environmental policies, irrespective of the company having a CSR or CS management system in place. Research on firms' decision-making related to environmental behavior is scarce and generally revolves around CS or CSR as a dimension of the overall management model (Bansal, 2005; Carroll, 2015; Chen et al., 2023; Das & Rangarajan, 2020; Heslin & Ochoa, 2008; Lozano et al., 2015; Székely & Knirsch, 2005). Moreover, from an organizational perspective, environmental behavior is an ethical concern, and as such, it is not easy to measure the impact of behavior on firm performance (Ferraz et al., 2017; Jiménez & Vargas, 2019). Thus, moving from policy disclosure to active environmental behavior implies using scarce organizational resources, and the objectives of financial performance can override those outlined in environmental policies, generating a gap between organizational intention and behavior (Afsar & Umrani, 2020; Gaspar, 2013; Kollmuss & Agyeman, 2002; Lynch-Wood et al., 2009).

2.1 Firm's characteristics that influence pro-environmental intention and behavior

Empirically, previous research shows that firm characteristics matter when declaring an organizational environmental policy in a management system (Pareek et al., 2019; Wang, 2017). For instance, firm size and age can influence CSR policy disclosure, including environmental policies (Al-Gamrh & Al-dhamari, 2016; Younis & Sundarakani, 2019). Evidence suggests that companies' environmental strategies vary according to size (Darnall et al., 2010; Ozusaglam et al., 2018). Moreover, studies have found a positive relationship between company size and firm commitment to environmental performance (Arocena et al., 2020; Bowen, 2000; Etzion, 2007). Older companies are more likely to declare CSR policies, including environmental protection policies (Hossain et al., 2017; Kolsi & Attayah, 2018; Salehi et al., 2019). Based on these findings, we propose the following hypothesis:

H1: Firms that are a) larger and b) older are more likely to announce environmental protection policies.

The empirical evidence establishes that corporate board diversity positively affects organizational pro-environmental intentions. Specifically, the presence of women in organizational management positively affects the declaration of organizational pro-environmental intentions through better CSR system performance (Giannarakis et al., 2020; Li et al., 2017). For example, Hossain et al. (2017) found a positive relationship between gender diversity on boards, higher carbon performance levels, and a greater propensity for firms to disclose carbon information assessments voluntarily. In the study conducted by Zhang et al. (2023), the relationship between gender and corporate sustainable environmental policies was examined in a sample of Chinese listed firms. They discovered a significant positive association between female CEOs and sustainable corporate environmental policies. Based on these findings, the following hypothesis is proposed:

H2: Firms run by women are more likely to announce environmental protection policies.

The differences in environmental regulations between countries can restrict or favor imports and exports; therefore, export-oriented companies might have more incentive to announce environmental protection policies that align with those of the foreign countries to which they export (Barrett, 1994; Curzi et al., 2018; Forslid et al., 2018). Moreover, the pro-environmental policies declared by a firm can influence its competitiveness and performance in external markets. For example, Leonidou et al. (2015) suggested that foreign environmental public concern and foreign competitive intensity motivate firms to declare and implement environmentally friendly export business strategies. Additionally, Dogan et al. (2020) proposed that the quality of export products influences environmental degradation and recommended that policymakers promote a reduction in the export of goods intensive in fossil fuel energy while encouraging the use of more renewable energy sources. Building on these concepts, we propose the following hypothesis:

H3 Firms that export are more likely to announce environmental protection policies.

Previous research recognizes family firm status as a distinctive characteristic that influences the disclosure of pro-environmental intention. Family businesses are highly committed to their social and environmental objectives (López-González et al., 2019). Moreover, family firms adopt economically, socially, and environmentally responsible behaviors to strengthen their social capital and satisfy their stakeholders (Breton-Miller & Miller, 2016; Herrera & de las Heras-Rosas, 2020). For instance, Craig and Dibrell (2006) showed that family owned companies are better positioned to facilitate environmentally friendly organizational policies. Furthermore, family businesses are motivated to invest in pro-environmental actions to

protect their reputations (Bammens & Hünermund, 2020; Berrone et al., 2010; Chaudhary et al., 2021). Based on these arguments, the following hypothesis is proposed:

H4: Family owned firms are more likely to announce environmental protection policies.

However, corporate group affiliation is a characteristic that could also impact the adoption of environmental policies. Research has demonstrated that this feature has a significant positive impact on firms' commitment to environmental performance and sustainability disclosure, including environmental policies (Akram et al., 2018; Mahmood et al., 2018). Furthermore, Gerged (2021) suggested that internal corporate governance structures influence corporate environmental disclosures in emerging economies. Consequently, there are significant differences in the declaration of pro-environmental intentions depending on ownership and corporate governance factors, such as managerial, institutional, and foreign ownership (Gerged, 2021; Nuskiya et al., 2021). Additionally, in some countries, corporate groups (e.g., listed companies) are obligated to disclose non-financial statements (e.g., sustainability information) following specific directives that regulate corporate practices (Aureli et al., 2020). Based on these considerations, the following hypothesis is proposed:

H5: Firms affiliated with corporate groups are more likely to announce environmental protection policies.

2.2 Different approaches to understanding firms' environmental commitment.

Organizational commitment to environmental issues has been investigated using various approaches, for instance, the Corporate Environmentalism (CE) perspective (Chrun et al., 2016; Wang et al., 2021). According to Banerjee (2002), "CE is the organization-wide recognition of the legitimacy and importance of the biophysical environment in the formulation of organizational strategy and the integration of environmental issues into the strategic planning process." Studies have found a gap in the CE framework between organizational pro-environmental intention, the adoption of concrete actions, and environmental impacts (Bowen, 2014; Wang et al., 2021).

Several scholars have applied institutional theory to clarify how the institutional environment impacts corporate decisions, particularly those concerning environmental behavior (Baah et al., 2021; Hoffman & Jennings, 2015; Scott, 2008). For instance, Rivera (2004) examined the relationship between institutional forces, such as regulatory and stakeholder pressures, and proactive environmental behavior in the hotel industry. Gao et al. (2019) explored how institutional pressures affect corporate environmental responsibility by analyzing the interacting effects of cognitive, regulative, and normative pressures at various levels. Additionally, Kılıç et al. (2021) investigated the correlation between the institutional environment and the adoption of integrated disclosure, providing a broader perspective on institutional impacts on corporate actions.

The natural resource-based view (NRBV) is another framework that describes companies' environmental behavior. Within this framework, businesses adopt strategic environmental practices to enhance their environmental performance and gain competitive advantages (Anthony Jr., 2019; Kim, 2018). According to Aragón-Correa and Sharma (2003), NRBV corporate environmental strategies can be classified as either proactive or reactive. The proactive approach involves anticipating future environmental trends; preventing negative environmental impacts from the firm's activities; and designing and/or altering operations, processes, and products (Mishra & Yadav, 2021). Conversely, reactive strategies respond defensively to environmental regulations and stakeholder pressures (Seroka-Stolka & Fijorek, 2020). The decision to adopt a proactive or reactive environmental strategy is a

resource allocation problem (Maniu et al., 2021). Consequently, firms that declare a pro-environmental policy invest in implementing these guidelines if they perceive that they can gain a competitive advantage (Chan et al., 2022; Piwowar-Sulej, 2022). Thus, companies must be able to appropriate the rents generated by competitive advantages resulting from investments in environmental protection strategies to meet the demands of their shareholders and other stakeholders (McDougall et al., 2019; Samadhiya et al., 2023). The NRBV captures a complex decision-making process regarding environmental protection strategies with a strategic focus on long-term competitive advantage rather than short-term reputational gain, as proposed in the greenwashing framework (Andersén, 2021; Lawton & Kock, 2023; Peace & Huber, 2023).

Fulfilling proactive environmental strategies requires the implementation of environmental management practices. That is, transitioning from organizational environmental intention to behavior systematically through sequential or progressive stages (Potrich et al., 2019; Zhang et al., 2019). Within this framework, after the firm declares an environmental intention through environmental policy, the logical next step is to implement these intentions and take concrete actions by adopting active environmental behavior (Baldassarre et al., 2020; Potrich et al., 2019; Roberts & Gehrke, 1996). Several stage models describe the transition phases required to become a proactive environmental corporation (Kolk & Mauser, 2002). Roberts and Gehrke (1996) proposed a five-stage model that includes inactive, reactive, receptive, constructive, and proactive stages. Garcés-Ayerbe et al. (2016) identified four stages in the development of proactive environmental strategies: laggard, initiated, proactive, and eco-innovative. Although there is no universal consensus on the stage model, some phases are commonly found in the literature (Potrich et al., 2019). First, in the awareness stage, the firm recognizes the necessity of an environmental strategy. Second, the company declares pro-environmental intentions or policies. Subsequently, the organization takes concrete actions for environmental protection, leading to active environmental behavior. Finally, the firm must monitor the environmental impacts of its operations, maintain a proactive environmental strategy, and capitalize on the benefits thereof (Baldassarre et al., 2020; Bowen, 2014; Jeswani et al., 2008; Lee, 2012; Ormazabal et al., 2017; Peace & Huber, 2023; Roberts & Gehrke, 1996). Building on these arguments, the following hypothesis is proposed:

H6: Firms that announce environmental protection policies are more likely to invest in pro-environmental actions.

3 METHODOLOGY

3.1 Method

To test our hypotheses, we used an endogenous switching probit (ESP) considering two dependent variables: (1) the probability of having environmental intention and (2) the probability of adopting active pro-environmental behavior. In our case, the variable associated with environmental intention is used as an independent variable to estimate active environmental behavior. Thus, we faced an endogeneity issue owing to simultaneity (Terza, 2009).

The ESP model is a two-stage model that includes the existing correlation of dependent variable errors to deliver a consistent estimator. The first stage's dependent variable can be considered a treatment effect on the dependent variable in the second stage measured through the average treatment effects on the treated (ATT) (Lokshin & Sajaia, 2011; Powers, 1993).

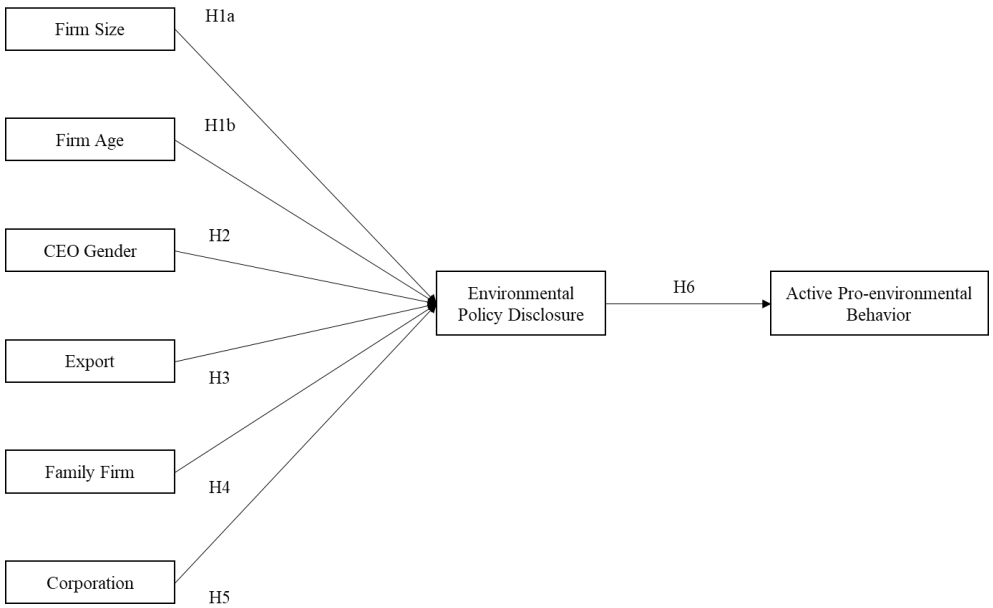

Fig. 1 – Conceptual framework and proposed hypotheses. Source: own research

3.2 Data

In this study, we used the Fifth Longitudinal Survey of Firms—known by the Spanish acronym ELE—from 2017, which contains detailed information from 6,480 Chilean firms (INE, 2017), of which 2,376 have complete information. The ELE aims to provide an overview of Chilean firms, providing a statistically representative picture of firm size and economic sectors. The survey is divided into five modules (finance, market, management, human resources, and ICT) and considers four economic sectors (natural resource-related, manufacturing, retail, and services). We divided the sample into the full sample (n=2,376) and the retail sector (n=1,607), representing 68% of the general sample.

Our sample contains 28.2% of firms that declare pro-environmental intentions through environmental protection policies, and those adopting pro-environmental behavior represent 8.2% of the sample. Both numbers are slightly lower in the retail sector (26.2% and 7.1%, respectively).

3.3 Variables

This study employs two dependent variables, each corresponding to a different stage in the ESP model. The first dependent variable is environmental policy disclosure, which is measured as a dichotomous variable. It takes the value of 1 if the company declares environmental protection policies and 0 otherwise. These policies encompass the disclosure of energy efficiency, waste management, and management of carbon and water footprints.

In the second stage, we utilize a dichotomous variable representing active pro-environmental behavior. It takes the value of 1 if the company incurs monetary expenditures for environmental protection and 0 otherwise. Companies report whether they have incurred expenses or made investments in environmental protection in their financial statements.

Environmental protection activities include air and water protection, residual water management, waste management, soil and groundwater protection and restoration, noise and vibration management, biodiversity and landscape protection, and radiation protection. The independent variables are the size and age of the company, gender of the CEO, export orientation, family ownership, and corporate group affiliation. Firm size is measured by the natural logarithm of the fixed assets owned by the company, and age represents the number of years that the company has been in operation. We control for the nonlinear effects of age by including the square of a firm's age. The CEO gender variable takes the value of 1 if the CEO is male and 0 if the CEO is female. Exports takes the value of 1 if the company exports goods and/or services and 0 otherwise. The family firm variable takes the value of 1 if the firm's primary ownership (>60%) belongs to a family, and 0 otherwise. Finally, corporation is a variable that takes a value of 1 if the company belongs to a corporate group and 0 otherwise. Table 1 shows the descriptive statistics for the full sample and the retail sector subsample.

Tab. 1 – Descriptive statistics. Source: own research

	All		Retail	
Variables	Mean	S.D.	Mean	S.D.
Dependent				
Environmental policy	0.282	0.450	0.262	0.440
Investment in environmental protection	0.082	0.275	0.071	0.257
Independent				
Firm-Size	10.012	5.602	10.127	5.313
Firm-Age	18.813	11.510	18.776	11.926
Square Firm-Age	486.365	699.817	494.667	777.879
Manager gender	0.768	0.422	0.757	0.429
Export Oriented	0.158	0.365	0.171	0.376
Family firm	0.404	0.491	0.398	0.490
Corporation	0.199	0.399	0.217	0.412
Observations	2,376		1,607	

4 RESULTS

Table 2 displays the results of the ESP model for both the full sample and retail sector subsamples. The fit measures indicate adequate values, confirming the explanatory quality of the model. The hypothesis that all ESP coefficients are simultaneously equal to zero is rejected (Prob > chi2, $\rho < 0.01$). Both the likelihood ratio chi-square test (LR test Prob > chi2) and Wald test (Wald chi2) support the overall significance of the ESP model. These interpretations hold for both models (the full sample and the retail subsample).

In the first stage of the ESP model, we examined the influence of a set of organizational characteristics on the likelihood of firms disclosing environmental protection policies. Our findings support most of the proposed hypotheses for both the full sample and the retail sector models. Notably, the coefficients and significance levels are similar between the full sample

and the retail sector subsample. We found support for H1a, H2, H3, H4, and H5 in both the retail sector and the overall sample. However, firm age does not significantly affect the announcement of environmental protection policies; therefore, H1b is rejected in both models. In summary, larger firms (H1a), those managed by males (H2), export-oriented entities (H3), family-owned businesses (H4), and corporations (H5) are more inclined to disclose environmental protection policies, both in the retail sector and in the overall sample.

Tab. 2 – ESP Model Results. Source: own research

	All		Retail	
Variables	Coeff	S.D.	Coeff	S.D.
Environmental policy				
Firm-Size	0.059***	0.006	0.070***	0.009
Firm-Age	0.003	0.006	0.010	0.007
Square Firm-Age	$6.03x10^{-5}$	$8.75x10^{-5}$	$-1.06x10^{-6}$	$9.79x10^{-5}$
Manager gender	0.233***	0.072	0.275***	0.091
Export	0.326***	0.076	0.199**	0.092
Family firm	0.183***	0.058	0.161**	0.074
Corporation	0.472***	0.071	0.547***	0.085
Investment in environmental protection = 1				
Firm-Size	0.050***	0.010	0.081***	0.016
Firm-Age	0.008	0.010	-0.002	0.012
Square Firm-Age	$-1.16x10^{-4}$	$1.51x10^{-4}$	$-9.95x10^{-6}$	$1.73\ x10^{-4}$
Manager gender	0.309**	0.123	0.332**	0.164
Export	0.320***	0.101	0.238*	0.127
Family firm	0.168*	0.089	0.244**	0.118
Corporation	0.605***	0.095	0.699***	0.121
Observations	2,376		1,607	
Wald chi2 (7)	272.64		202.68	
Prob > chi2	0.000		0.000	
LR test Prob > chi2	0.117		0.510	
ATT	0.224**		0.214**	
***/**/* indicates significance at the 0.01/0.05/0.1 level				

Turning to the second stage of the model, which assessed the likelihood of firms actively investing in environmental protection measures, ATT is statistically significant in both the general and retail models, supporting H6. This suggests that the disclosure of environmental policies is not merely symbolic, but translates into substantive investment in environmental protection. We found a positive relationship between intention and action, as the declaration of environmental policy positively affects firms' active environmental behavior. At the

aggregate level, our results suggest that firms that disclose environmental intentions have a 22.4% higher probability of making financial investments in environmental protection (active environmental behavior) than firms that do not declare environmental intentions. Furthermore, in the retail sector, declaring environmental intentions increases the probability of active environmental behavior by 21.4%. Figures 2 and 3 show all the proposed hypotheses tested for the full sample and the retail sector, respectively.

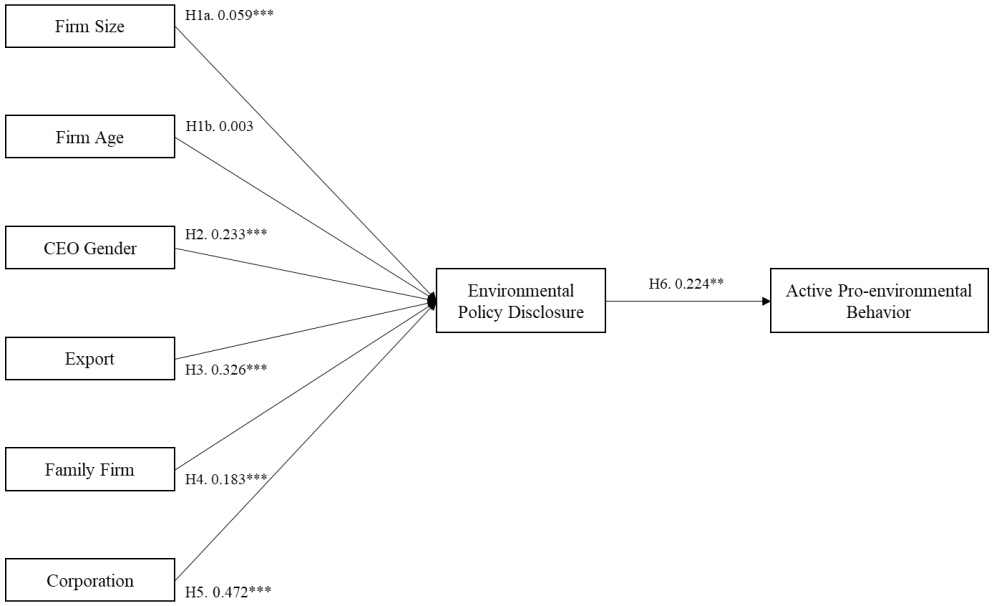

Fig. 2 – Hypotheses testing (full sample). Source: own research

***/**/* indicates significance at the 0.01/0.05/0.1 level

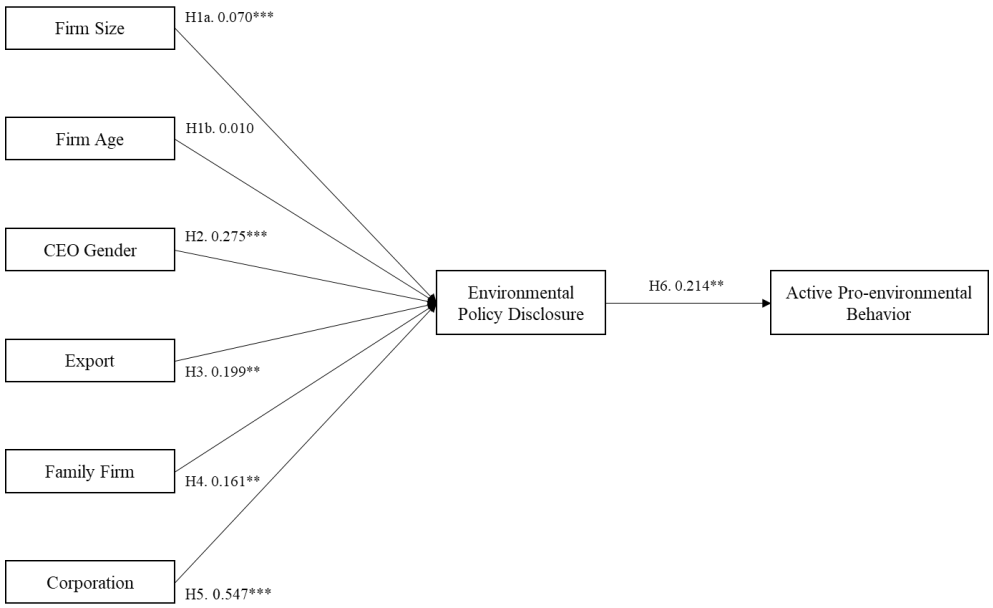

Fig. 3 – Hypotheses testing (retail sector). Source: own research

***/**/* indicates significance at the 0.01/0.05/0.1 level

5 DISCUSSION

This study identified the firm characteristics that influence the likelihood of declaring environmental intention through environmental policy and tested whether environmental intention is a good predictor of active environmental behavior. We used an ESP model on a sample of 2,376 Chilean firms. Our analysis was conducted at both the overall and retail sector levels. The context of emerging countries as environmental concerns and corporate environmental strategies have not yet been widely developed in these regions (Khan et al., 2019; Tien et al., 2020). The Chilean retail sector represents a significant proportion of the total business population, accounting for 68%, and contributes significantly to the national income (INE, 2017). Additionally, this sector plays a substantial role in environmental degradation, as observed in fashion-related industries (Brydges, 2021; Niinimäki et al., 2020). Our work is distinctive in that we focus on specific environmental intentions and behaviors, rather than on those integrating CSR or CS as a whole. Thus, it is challenging to compare our findings with the results of the mainstream literature because the current literature on this topic focuses on the characteristics that influence the declaration of CSR and CS systems (e.g., Bansal, 2005; Carroll, 2015; Das & Rangarajan, 2020; Heslin & Ochoa, 2008; Lozano et al., 2015; Székely & Knirsch, 2005). Moreover, it is difficult to disaggregate the specific effects of different characteristics on the adoption of environmental policies (Al-Gamrh & Al-dhamari, 2016; Gillan et al., 2021). Furthermore, CS and CSR literature has not established boundaries between intentions and actions (Heslin & Ochoa, 2008; Lozano et al., 2015; Székely & Knirsch, 2005). We propose this boundary by distinguishing between environmental intentions, passive environmental behaviors, and active environmental behaviors. Our findings show that firms that are large, managed by men, export-oriented, family owned, and corporate group affiliates are more likely to announce environmental policies. The results hold for both the full sample and the retail sector, making the retail industry a representative example of the overall Chilean business environment.

Consistent with previous research, our results demonstrate that a company's size positively influences its commitment to environmental performance (Arocena et al., 2020; Bowen, 2000; Etzion, 2007). In addition, our study provides further evidence of the significance of firm size in the development of a company's environmental strategy (Darnall et al., 2010; Ozusaglam et al., 2018). However, our findings do not support the notion that older companies are more likely to declare environmental policies. In contrast to other studies, firm age does not emerge as a significant characteristic influencing the adoption of a pro-environmental policy (e.g., Hossain et al., 2017; Kolsi & Attayah, 2018; Salehi et al., 2019). According to Li et al. (2017) and Giannarakis et al. (2020), the presence of women in organizational management encourages firms to declare environmental intentions through CSR. Moreover, Zhang et al. (2023) found a positive relationship between female CEOs and sustainable corporate environmental policies in Chinese listed firms. However, our results indicate that male managers positively influence environmental policy disclosures. It is possible that women positively impact CSR performance as a whole and/or influence decision-making in other aspects of a company's environmental strategy.

Export-oriented companies may have more incentive to announce environmental policies to improve their access to foreign markets (Barrett, 1994; Curzi et al., 2018; Forslid et al., 2018). Leonidou et al. (2015) argued that foreign environmental public concern and foreign competitive intensity serve as incentives for firms to adopt environmentally friendly export business strategies. This exemplifies how external market pressure can influence a company's environmental strategy decisions. Confirming previous findings, our research found a positive relationship between export orientation and the probability that a firm declares environmental intention. Additionally, our results show that ownership structure

influences the likelihood of declaring environmental intentions (Gerged, 2021; Nuskiya et al., 2021). In this context, family-owned firms may exhibit different orientations toward environmentally responsible behavior than non-family owned firms. To strengthen their social capital, family firms are interested in adopting responsible economic, social, and environmental behaviors (Breton-Miller & Miller, 2016; Craig & Dibrell, 2006; Herrera & de las Heras-Rosas, 2020). Specifically, concerning environmental concerns, our results indicate that family firm status increases the likelihood of announcing environmental intentions. This aligns with current evidence suggesting that family firms are more willing than non-family firms to take pro-environmental actions to protect their reputations (Bammens & Hünermund, 2020; Berrone et al., 2010; Chaudhary et al., 2021; López-González et al., 2019). Continuing with the influence of ownership structure on the adoption of pro-environmental policies, our findings support previous empirical evidence suggesting that belonging to a corporate group is a positive factor in a firm's commitment to environmental performance and sustainability disclosures (Akram et al., 2018; Aureli et al., 2020; Mahmood et al., 2018). By highlighting the positive and significant influence of family firms and export-oriented status on the declaration of pro-environmental policies, this study underscores the critical role of corporate governance structures in explaining the heterogeneity involved in the decisions to declare a corporate environmental strategies (e.g., Aureli et al., 2020; Gerged, 2021; Nuskiya et al., 2021).

This study's framework is rooted in the NRBV, which argues that the decision to transition from intention to action within a corporate environmental strategy is essentially a resource allocation problem (Chan et al., 2022; Maniu et al., 2021; Samadhiya et al., 2023). Our perspective diverges from the notion that pro-environmental intentions and behaviors are merely about reputation or symbolic gestures to meet stakeholder demands. We believe that a firm's environmental protection strategies can lead to long-term competitive advantages that surpass short-term reputation-based benefits as suggested by the greenwashing framework (Andersén, 2021; Lawton & Kock, 2023; Peace & Huber, 2023). The decision to invest in pro-environmental activities involves a multifaceted decision-making process. The NRBV framework aptly captures these complexities, helping us understand why firms declare and invest in such actions when they perceive the potential for competitive advantages and monetary gains (Anthony Jr., 2019; Kim, 2018; McDougall et al., 2019; Piwowar-Sulej, 2022; Samadhiya et al., 2023). The transition from a firm's intention to its behavior follows a sequential process, progressing through stages in which investing in pro-environmental actions becomes the logical next step after declaring pro-environmental intentions (Baldassarre et al., 2020; Potrich et al., 2019; Roberts & Gehrke, 1996; Zhang et al., 2019). Building on these arguments, we tested whether the declaration of an organization's pro-environmental policy is a reliable predictor of active environmental behavior. Our findings indicate that firms that declare environmental protection policies are more likely to invest in pro-environmental activities. The willingness to adopt and implement a proactive environmental strategy may stem from environmental concerns or the perception of an opportunity to gain a competitive advantage and capitalize on its benefits (Jeswani et al., 2008; Mishra & Yadav, 2021; Ormazabal et al., 2017).

6 CONCLUSIONS

The firm characteristics that affect the willingness to adopt an environmental policy are central to understanding organizational environmental intentions. Several studies have examined the firm characteristics that influence environmental policy announcements as part of a CSR or CS management system. However, our research is distinctive because it assesses

the effect of these variables on the willingness to disclose active environmental policies, irrespective of a company having a CSR or CS management system in place.

This study follows a stage-based approach to analyze whether disclosing an organization's pro-environmental policy is a good predictor of active environmental behavior. Although environmental policies increase the probability of investing in environmental protection, our data show that the gap between intentions and actions is very high. Therefore, many firms do not invest money toward their declared intentions, raising questions about why firms declare environmental policies but do not take concrete actions for environmental protection.

Several studies have demonstrated that proactive environmental strategies improve company performance; that is, environmental protection initiatives may produce positive cash flows. However, most companies have not adopted these initiatives or cannot capitalize on the benefits of environmental protection investments. The conflict between financial performance goals and environmental protection objectives is rooted in integrating economic, social, and environmental dimensions into corporate management systems (e.g., CSR and CS). Moreover, the difference between intention and behavior is often ignored, assuming that firms announcing a pro-environmental policy necessarily make expenditures on environmental protection. We propose that intention and behavior are two different stages in proactive environmental strategy; thus, to analyze organizational environmental issues, it is necessary to distinguish between these stages.

6.1 Limitations, future research agenda, and implications

This study has some limitations that should be explored in future research. Our analysis did not consider strategic issues such as dynamic capabilities, competitive advantages, or risk-taking profiles. Future research could focus on the effect of fear of a global environmental collapse on organizational decision-making regarding proactive environmental strategies and how firms prepare to face this challenging scenario. This study assesses the relationship between environmental intention and active environmental behavior, other studies could explore how companies adopt passive environmental behaviors. Moreover, an interesting research avenue could be exploring how companies that adopt passive environmental behavior can capitalize on their environmental protection initiatives. The results of this study are limited to economically developing countries; assessing the same characteristics using data from developed countries could lead to different conclusions. Another limitation of this study is the lack of longitudinal data, which could improve the estimation precision of the proposed models.

This study has practical applications in public policy design that promotes environmental behavior. Public policies should efficiently communicate the regulatory framework of environmental protection and resources should be dedicated to smaller companies to encourage them to adopt active environmental behaviors. Given that environmental intention strongly predicts active environmental behavior, public institutions should promote the formal declaration of these intentions through environmental policy and sustainability disclosures. In this context, public incentives for innovation may focus more on clean technologies and stimulate production processes to become environmentally friendly.

References

1. Afsar, B., & Umrani, W. A. (2020). Corporate social responsibility and pro-environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment. *Corporate Social Responsibility and Environmental Management*, *27*(1), 109–125. https://doi.org/10.1002/csr.1777
2. Akram, F., Abrar-ul-Haq, M., & Raza, S. (2018). A role a [sic] corporate governance and firm's environmental performance: A moderating role of institutional regulations. *International Journal of Management Studies*, *25*(2), 19-37. http://e-journal.uum.edu.my/index.php/ijms/article/view/10498
3. Al-Gamrh, B., & Al-dhamari, R. (2016). Firm characteristics and corporate social responsibility disclosure in Saudi Arabia. *International Business Management*, *10*(18), 4283–4291.
4. Albertini, E. (2013). Does environmental management improve financial performance? A meta-analytical review. *Organization & Environment*, *26*(4), 431–457. https://doi.org/10.1177/1086026613510301
5. Amahalu, N. (2019). Effect of firm characteristics on environmental performance of quoted industrial goods firms in Nigeria. *International Journal of Research in Business, Economics and Management*, *3*(6). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3704453
6. Andersén, J. (2021). A relational natural-resource-based view on product innovation: The influence of green product innovation and green suppliers on differentiation advantage in small manufacturing firms. *Technovation*, *104*, 102254. https://doi.org/10.1016/j.technovation.2021.102254
7. Anthony Jr., B. (2019). Green information system integration for environmental performance in organizations. *Benchmarking: An International Journal*, *26*(3), 1033–1062. https://doi.org/10.1108/BIJ-05-2018-0142
8. Aragón-Correa, J. A., & Sharma, S. (2003). A contingent resource-based view of proactive corporate environmental strategy. *Academy of Management Review*, *28*(1), 71–88. https://doi.org/10.5465/amr.2003.8925233
9. Arocena, P., Orcos, R., & Zouaghi, F. (2020). The impact of ISO 14001 on firm environmental and economic performance: The moderating role of size and environmental awareness. *Business Strategy and the Environment*, bse.2663. https://doi.org/10.1002/bse.2663
10. Aureli, S., Del Baldo, M., Lombardi, R., & Nappo, F. (2020). Nonfinancial reporting regulation and challenges in sustainability disclosure and corporate governance practices. *Business Strategy and the Environment*, *29*(6), 2392–2403. https://doi.org/10.1002/bse.2509
11. Baah, C., et al. (2021). Examining the correlations between stakeholder pressures, green production practices, firm reputation, environmental and financial performance: Evidence from manufacturing SMEs. *Sustainable Production and Consumption*, *27*, 100–114. https://doi.org/10.1016/j.spc.2020.10.015
12. Baldassarre, B., et al. (2020). Implementing sustainable design theory in business practice: A call to action. *Journal of Cleaner Production*, *273*, 123113. https://doi.org/10.1016/j.jclepro.2020.123113

13. Bammens, Y., & Hünermund, P. (2020). Nonfinancial considerations in eco-innovation decisions: The role of family ownership and reputation concerns. *Journal of Product Innovation Management*, *37*(5), 431–453. https://doi.org/10.1111/jpim.12550
14. Banerjee, S. (2002). Corporate environmentalism: The construct and its measurement. *Journal of Business Research*, *55*(3), 177–191. https://doi.org/10.1016/S0148-2963(00)00135-1
15. Bansal, P. (2005). Evolving sustainably: A longitudinal study of corporate sustainable development. *Strategic Management Journal*, *26*(3), 197–218.
16. Barrett, S. (1994). Strategic environmental policy and international trade. *Journal of Public Economics*, *54*(3), 325–338.
17. Bernini, F., & La Rosa, F. (2023). Research in the greenwashing field: Concepts, theories, and potential impacts on economic and social value. *Journal of Management and Governance*. https://doi.org/10.1007/s10997-023-09686-5
18. Berrone, P., Cruz, C., Gomez-Mejia, L. R., & Larraza-Kintana, M. (2010). Socioemotional wealth and corporate responses to institutional pressures: Do family-controlled firms pollute less? *Administrative Science Quarterly*, *55*(1), 82–113. https://doi.org/10.2189/asqu.2010.55.1.82
19. Bhuiyan, M. B. U., Huang, H. J., & de Villiers, C. (2021). Determinants of environmental investment: Evidence from Europe. *Journal of Cleaner Production*, *292*, 125990. https://doi.org/10.1016/j.jclepro.2021.125990
20. Bilal et al. (2023). A bibliometric review of corporate environmental disclosure literature. *Journal of Accounting Literature*. https://doi.org/10.1108/JAL-01-2022-0006
21. Biswas, S. R., Dey, M., Bhattacharjee, S., & Uddin, M. A. (2021). How does corporate environmental strategy contribute to voluntary environmental behavior? Influence of psychological green climate, firms' size, and employees' age. *SAGE Open*, *11*(1). https://doi.org/10.1177/21582440211006054
22. Bjørn, A., Tilsted, J. P., Addas, A., & Lloyd, S. M. (2022). Can science-based targets make the private sector Paris-aligned? A review of the emerging evidence. *Current Climate Change Reports*, *8*(2), 53–69. https://doi.org/10.1007/s40641-022-00182-w
23. Bowen, F. E. (2000). Environmental visibility: A trigger of green organizational response? *Business Strategy and the Environment*, *9*(2), 92–107. https://doi.org/10.1002/(SICI)1099-0836(200003/04)9:2<92::AID-BSE230>3.0.CO;2-X
24. Bowen, F. (2014). Perspectives on symbolic corporate environmentalism. In *After greenwashing : Symbolic corporate environmentalism and society* (pp. 39-75). Cambridge University Press. https://www.cambridge.org/core/books/after-greenwashing/2C07B348777D755C8AE01F2FC88A54E0
25. Bradley, P. (2016). Environmental impacts of food retail: A framework method and case application. *Journal of Cleaner Production*, *113*, 153–166. https://doi.org/10.1016/j.jclepro.2015.09.085
26. Brancoli, P., Rousta, K., & Bolton, K. (2017). Life cycle assessment of

supermarket food waste. *Resources, Conservation and Recycling*, *118*, 39–46. https://doi.org/10.1016/j.resconrec.2016.11.024

27. Breton-Miller, I., & Miller, D. (2016). Family firms and practices of sustainability: A contingency view. *Journal of Family Business Strategy*, *7*(1), 26–33. https://doi.org/10.1016/j.jfbs.2015.09.001
28. Broadstock, D. C., Collins, A., Hunt, L. C., & Vergos, K. (2018). Voluntary disclosure, greenhouse gas emissions and business performance: Assessing the first decade of reporting. *British Accounting Review*, *50*(1), 48–59. https://doi.org/10.1016/j.bar.2017.02.002
29. Brydges, T. (2021). Closing the loop on take, make, waste: Investigating circular economy practices in the Swedish fashion industry. *Journal of Cleaner Production*, *293*, 126245. https://doi.org/10.1016/j.jclepro.2021.126245
30. Buallay, A. (2022). Sustainability reporting and retail sector performance: Worldwide evidence. *International Review of Retail, Distribution and Consumer Research*, *32*(3), 311–330. https://doi.org/10.1080/09593969.2022.2048410
31. Carballo-Penela, A., & Castromán-Diz, J. L. (2015). Environmental policies for sustainable development: An analysis of the drivers of proactive environmental strategies in the service sector. *Business Strategy and the Environment*, *24*(8), 802–818. https://doi.org/10.1002/bse.1847
32. Carroll, A. B. (2015). Corporate social responsibility: The centerpiece of competing and complementary frameworks. *Organizational Dynamics*, *44*(2), 87–96. https://doi.org/10.1016/j.orgdyn.2015.02.002
33. CDP. (2019). *CDP supply chain: Changing the chain*. 1–8. https://cdn.cdp.net/cdp-production/cms/reports/documents/000/004/811/original/CDP_Supply_Chain_Report_Changing_the_Chain.pdf?1575882630
34. Chan, R. Y. K., Lai, J. W. M., & Kim, N. (2022). Strategic motives and performance implications of proactive versus reactive environmental strategies in corporate sustainable development. *Business Strategy and the Environment*, *31*(5), 2127–2142. https://doi.org/10.1002/bse.3011
35. Chang, L., Li, W., & Lu, X. (2015). Government engagement, environmental policy, and environmental performance: Evidence from the most polluting Chinese listed firms. *Business Strategy and the Environment*, *24*(1), 1–19. https://doi.org/10.1002/bse.1802
36. Chaudhary, S., Dhir, A., Ferraris, A., & Bertoldi, B. (2021). Trust and reputation in family businesses: A systematic literature review of past achievements and future promises. *Journal of Business Research*, *137*, 143–161. https://doi.org/10.1016/j.jbusres.2021.07.052
37. Chen, N., Cai, J., & Govindan, K. (2023). Decision analysis of supply chain considering yield uncertainty and CSR under different market power structures. *Journal of Cleaner Production*, 139006. https://doi.org/10.1016/j.jclepro.2023.139006
38. Chrun, E., Dolšak, N., & Prakash, A. (2016). Corporate environmentalism: Motivations and mechanisms. *Annual Review of Environment and Resources*,

41(1), 341–362. https://doi.org/10.1146/annurev-environ-110615-090105
39. Clementino, E., & Perkins, R. (2021). How do companies respond to environmental, social and governance (ESG) ratings? Evidence from Italy. *Journal of Business Ethics*, *171*(2), 379–397. https://doi.org/10.1007/s10551-020-04441-4
40. Craig, J., & Dibrell, C. (2006). The natural environment, innovation, and firm performance: A comparative study. *Family Business Review*, *19*(4), 275–288.
41. Curzi, D., Luarasi, M., Raimondi, V., & Olper, A. (2018). The (lack of) international harmonization of EU standards: Import and export effects in developed versus developing countries. *Applied Economics Letters*, *25*(21), 1552–1556. https://doi.org/10.1080/13504851.2018.1430327
42. D'Amico, E., Coluccia, D., Fontana, S., & Solimene, S. (2016). Factors influencing corporate environmental disclosure. *Business Strategy and the Environment*, *25*(3), 178–192. https://doi.org/10.1002/bse.1865
43. Dai, W., Liu, Y., Liao, M., & Lin, Q. (2018). How does entrepreneurs' socialist imprinting shape their opportunity selection in transition economies? Evidence from China's privately owned enterprises. *International Entrepreneurship and Management Journal*, *14*(4), 823–856. https://doi.org/10.1007/s11365-017-0485-0
44. Darnall, N., Henriques, I., & Sadorsky, P. (2010). Adopting proactive environmental strategy: The influence of stakeholders and firm size. *Journal of Management Studies*, *47*(6), 1072–1094. https://doi.org/10.1111/j.1467-6486.2009.00873.x
45. Das, M., & Rangarajan, K. (2020). Impact of policy initiatives and collaborative synergy on sustainability and business growth of Indian SMEs. *Indian Growth and Development Review*, *13*(3), 607–627.
46. de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. da L. (2020). Concepts and forms of greenwashing: a systematic review. *Environmental Sciences Europe*, *32*(1), 19. https://doi.org/10.1186/s12302-020-0300-3
47. Delai, I., & Takahashi, S. (2013). Corporate sustainability in emerging markets: Insights from the practices reported by the Brazilian retailers. *Journal of Cleaner Production*, *47*, 211–221. https://doi.org/10.1016/j.jclepro.2012.12.029
48. Delmas, M. A., & Burbano, V. C. (2011). The drivers of greenwashing. *California Management Review*, *54*(1), 64–87. https://doi.org/10.1525/cmr.2011.54.1.64
49. Dietz, T., Ostrom, E., & Stern, P. C. (2003). The struggle to govern the commons. *Science*, *302*(5652), 1907–1912. https://doi.org/10.1126/science.1091015
50. Doan, M. H., & Sassen, R. (2020). The relationship between environmental performance and environmental disclosure: A meta-analysis. *Journal of Industrial Ecology*, *24*(5), 1140–1157. https://doi.org/10.1111/jiec.13002
51. Dogan, B., Madaleno, M., Tiwari, A. K., & Hammoudeh, S. (2020). Impacts of export quality on environmental degradation: Does income matter? *Environmental Science and Pollution Research*, *27*(12), 13735–13772. https://doi.org/10.1007/s11356-019-07371-5
52. Elmagrhi, M., Ntim, C., Elamer, A., & Zhang, Q. (2019). A study of environmental policies and regulations, governance structures, and environmental performance: The role of female directors. *Business Strategy and the Environment*,

28(1), 206–220. https://doi.org/10.1002/bse.2250
53. Etzion, D. (2007). Research on organizations and the natural environment, 1992-present: A review. *Journal of Management*, *33*(4), 637–664. https://doi.org/10.1177/0149206307302553
54. Félonneau, M.-L., & Becker, M. (2008). Pro-environmental attitudes and behavior: Revealing perceived social desirability. *Revue Internationale de Psychologie Sociale*, *21*(4), 25–53.
55. Fernando, C. S., Sharfman, M. P., & Uysal, V. B. (2017). Corporate environmental policy and shareholder value: Following the smart money. *Journal of Financial and Quantitative Analysis*, *52*(5), 2023–2051. https://doi.org/10.1017/S0022109017000680
56. Ferraz, S., Buhamra, C., Laroche, M., & Veloso, A. (2017). Green products: A cross-cultural study of attitude, intention and purchase behavior. *RAM. Revista de Administração Mackenzie*, *18*(5), 12–38.
57. Forslid, R., Okubo, T., & Ulltveit-Moe, K. (2018). Why are firms that export cleaner? International trade, abatement and environmental emissions. *Journal of Environmental Economics and Management*, *91*, 166–183. https://doi.org/https://doi.org/10.1016/j.jeem.2018.07.006
58. Gangi, F., Daniele, L. M., & Varrone, N. (2020). How do corporate environmental policy and corporate reputation affect risk-adjusted financial performance? *Business Strategy and the Environment*, *29*(5), 1975–1991. https://doi.org/10.1002/bse.2482
59. Gao, Y., Gu, J., & Liu, H. (2019). Interactive effects of various institutional pressures on corporate environmental responsibility: Institutional theory and multilevel analysis. *Business Strategy and the Environment*, *28*(5), 724–736. https://doi.org/10.1002/bse.2276
60. Garcés-Ayerbe, C., Scarpellini, S., Valero-Gil, J., & Rivera-Torres, P. (2016). Proactive environmental strategy development: from laggard to eco-innovative firms. *Journal of Organizational Change Management*, *29*(7), 1118–1134. https://doi.org/10.1108/JOCM-05-2016-0081
61. García-Quevedo, J., & Jové-Llopis, E. (2021). Environmental policies and energy efficiency investments. An industry-level analysis. *Energy Policy*, *156*, 112461. https://doi.org/10.1016/j.enpol.2021.112461
62. Gaspar, R. (2013). Understanding the reasons for behavioral failure: A process view of psychosocial barriers and constraints to pro-ecological behavior. *Sustainability*, *5*(7), 2960–2975.
63. Gerged, A. M. (2021). Factors affecting corporate environmental disclosure in emerging markets: The role of corporate governance structures. *Business Strategy and the Environment*, *30*(1), 609–629. https://doi.org/10.1002/bse.2642
64. Gerged, A. M., Beddewela, E., & Cowton, C. J. (2021). Is corporate environmental disclosure associated with firm value? A multicountry study of Gulf Cooperation Council firms. *Business Strategy and the Environment*, *30*(1), 185–203. https://doi.org/10.1002/bse.2616
65. Giannarakis, G., Andronikidis, A., & Sariannidis, N. (2020). Determinants of

environmental disclosure: investigating new and conventional corporate governance characteristics. *Annals of Operations Research*, *294*(1–2), 87–105. https://doi.org/10.1007/s10479-019-03323-x

66. Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. *Journal of Corporate Finance*, *66*, 101889. https://doi.org/10.1016/j.jcorpfin.2021.101889
67. Guo, Y., Wang, L., & Yang, Q. (2020). Do corporate environmental ethics influence firms' green practice? The mediating role of green innovation and the moderating role of personal ties. *Journal of Cleaner Production*, *266*. https://doi.org/10.1016/j.jclepro.2020.122054
68. Halkos, G., & Nomikos, S. (2021). Corporate social responsibility: Trends in global reporting initiative standards. *Economic Analysis and Policy*, *69*, 106–117. https://doi.org/10.1016/j.eap.2020.11.008
69. Halme, M., & Niskanen, J. (2001). Does corporate environmental protection increase or decrease shareholder value? The case of environmental investments. *Business Strategy and the Environment*, *10*(4), 200–214. https://doi.org/10.1002/bse.290
70. Hang, M., Geyer-Klingeberg, J., & Rathgeber, A. W. (2019). It is merely a matter of time: A meta-analysis of the causality between environmental performance and financial performance. *Business Strategy and the Environment*, *28*(2), 257–273. https://doi.org/10.1002/bse.2215
71. Hart, S. L., & Dowell, G. (2011). Invited editorial: A natural-resource-based view of the firm. *Journal of Management*, *37*(5), 1464–1479. https://doi.org/10.1177/0149206310390219
72. Herrera, J., & de las Heras-Rosas, C. (2020). Economic, non-economic and critical factors for the sustainability of family firms. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(4), 119. https://doi.org/10.3390/joitmc6040119
73. Heslin, P., & Ochoa, J. (2008). Understanding and developing strategic corporate social responsibility. *Organizational Dynamics*, *37*, 125–144.
74. Hoffman, A. J., & Jennings, P. D. (2015). Institutional theory and the natural environment. *Organization & Environment*, *28*(1), 8–31. https://doi.org/10.1177/1086026615575331
75. Högström, J., Balfors, B., & Hammer, M. (2018). Planning for sustainability in expansive metropolitan regions: exploring practices and planners' expectations in Stockholm, Sweden. *European Planning Studies*, *26*(3), 439–457. https://doi.org/10.1080/09654313.2017.1391751
76. Hossain, M., Al Farooque, O., Momin, M., & Almotairy, O. (2017). Women in the boardroom and their impact on climate change related disclosure. *Social Responsibility Journal*, *13*(4), 828–855. https://doi.org/10.1108/SRJ-11-2016-0208
77. Hrovatin, N., Dolšak, N., & Zorić, J. (2016). Factors impacting investments in energy efficiency and clean technologies: Empirical evidence from Slovenian manufacturing firms. *Journal of Cleaner Production*, *127*, 475–486. https://doi.org/10.1016/j.jclepro.2016.04.039

78. Huang, Y., Francoeur, C., & Brammer, S. (2022). What drives and curbs brownwashing? *Business Strategy and the Environment*, *31*(5), 2518–2532. https://doi.org/10.1002/bse.3041
79. INE. (2017). *Quinta Encuesta Longitudinal de Empresas*. Ministerio de Economía. https://www.economia.gob.cl/2019/03/12/quinta-encuesta-longitudinal-de-empresas-ele5.htm
80. Jeswani, H., Wehrmeyer, W., & Mulugetta, Y. (2008). How warm is the corporate response to climate change? Evidence from Pakistan and the UK. *Business Strategy and the Environment*, *17*(1), 46–60. https://doi.org/10.1002/bse.569
81. Jiménez, J., & Vargas, M. (2019). Models of environmental behavior in ecological economics: A literature review. *Studies of Applied Economics*, *36*(1), 309–316.
82. Johnstone, L., & Hallberg, P. (2020). ISO 14001 adoption and environmental performance in small to medium sized enterprises. *Journal of Environmental Management*, *266*, 110592. https://doi.org/10.1016/j.jenvman.2020.110592
83. Khan, M. A. (2022). ESG disclosure and Firm performance: A bibliometric and meta analysis. *Research in International Business and Finance*, *61*, 101668. https://doi.org/10.1016/j.ribaf.2022.101668
84. Khan, S. A. R., Sharif, A., Golpîra, H., & Kumar, A. (2019). A green ideology in Asian emerging economies: From environmental policy and sustainable development. *Sustainable Development*, *27*(6), 1063–1075. https://doi.org/10.1002/sd.1958
85. Kim, K. (2018). Proactive versus reactive corporate environmental practices and environmental performance. *Sustainability*, *10*(2), 97. https://doi.org/10.3390/su10010097
86. King, A., & Lenox, M. (2002). Exploring the locus of profitable pollution reduction. *Management Science*, *48*(2), 289–299. https://doi.org/10.1287/mnsc.48.2.289.258
87. Kılıç, M., Uyar, A., Kuzey, C., & Karaman, A. S. (2021). Does institutional theory explain integrated reporting adoption of Fortune 500 companies? *Journal of Applied Accounting Research*, *22*(1), 114–137. https://doi.org/10.1108/JAAR-04-2020-0068
88. Kolk, A., & Mauser, A. (2002). The evolution of environmental management: From stage models to performance evaluation. *Business Strategy and the Environment*, *11*(1), 14–31. https://doi.org/10.1002/bse.316
89. Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, *8*(3), 239–260.
90. Kolsi, M., & Attayah, O. (2018). Environmental policy disclosures and sustainable development: Determinants, measure and impact on firm value for ADX listed companies. *Corporate Social Responsibility and Environmental Management*, *25*(5), 807–818. https://doi.org/10.1002/csr.1496
91. Kuk, G., Fokeer, S., & Hung, W. T. (2005). Strategic formulation and communication of corporate environmental policy statements: UK firms' perspective. *Journal of Business Ethics*, *58*(4), 375–385.

https://doi.org/10.1007/s10551-004-8316-y
92. Lai, K.-H., Cheng, T. C. E., & Tang, A. K. Y. (2010). Green retailing: Factors for success. *California Management Review*, *52*(2), 6–31. https://doi.org/10.1525/cmr.2010.52.2.6
93. Lawrence, A., Karlsson, M., & Thollander, P. (2018). Effects of firm characteristics and energy management for improving energy efficiency in the pulp and paper industry. *Energy*, *153*, 825–835. https://doi.org/10.1016/j.energy.2018.04.092
94. Lawton, T. C., & J. Kock, C. (2023). Corporate strategy and climate change: A nonmarket approach to environmental advantage. In A. Sundaram & R. Hansen (Eds.), *Handbook of business and climate change* (pp. 251–270). Edward Elgar Publishing. https://doi.org/10.4337/9781839103001.00019
95. Lee, J. W., Kim, Y. M., & Kim, Y. E. (2018). Antecedents of adopting corporate environmental responsibility and green practices. *Journal of Business Ethics*, *148*(2). https://doi.org/10.1007/s10551-016-3024-y
96. Lee, S.-Y. (2012). Corporate carbon strategies in responding to climate change. *Business Strategy and the Environment*, *21*(1), 33–48. https://doi.org/10.1002/bse.711
97. Leonidou, L. C., et al. (2015). Environmentally friendly export business strategy: Its determinants and effects on competitive advantage and performance. *International Business Review*, *24*(5), 798–811. https://doi.org/10.1016/J.IBUSREV.2015.02.001
98. Li, J., et al. (2017). Gender diversity on boards and firms' environmental policy. *Business Strategy and the Environment*, *26*(3), 306–315.
99. Li, Z., Liao, G., & Albitar, K. (2020). Does corporate environmental responsibility engagement affect firm value? The mediating role of corporate innovation. *Business Strategy and the Environment*, *29*(3). https://doi.org/10.1002/bse.2416
100. Lokshin, M., & Sajaia, Z. (2011). Impact of interventions on discrete outcomes: Maximum likelihood estimation of the binary choice models with binary endogenous regressors. *Stata Journal*, *11*(3), 368–385. http://www.stata-journal.com/article.html?article=st0233
101. López-González, E., Martínez-Ferrero, J., & García-Meca, E. (2019). Corporate social responsibility in family firms: A contingency approach. *Journal of Cleaner Production*, *211*, 1044–1064. https://doi.org/10.1016/j.jclepro.2018.11.251
102. Lozano, R., Carpenter, A., & Huisingh, D. (2015). A review of 'theories of the firm'and their contributions to corporate sustainability. *Journal of Cleaner Production*, *106*, 430–442.
103. Lynch-Wood, G., Williamson, D., & Jenkins, W. (2009). The over-reliance on self-regulation in CSR policy. *Business Ethics: A European Review*, *18*(1), 52–65.
104. Ma, Y. J., Lee, H., & Goerlitz, K. (2016). Transparency of global apparel supply chains: Quantitative analysis of corporate disclosures. *Corporate Social Responsibility and Environmental Management*, *23*(5), 308–318. https://doi.org/10.1002/csr.1378
105. Mahmood, Z., et al. (2018). Does corporate governance affect sustainability

disclosure? A mixed methods study. *Sustainability*, *10*(1), 207. https://doi.org/10.3390/su10010207

106. Manes-Rossi, F., & Nicolo', G. (2022). Exploring sustainable development goals reporting practices: From symbolic to substantive approaches—Evidence from the energy sector. *Corporate Social Responsibility and Environmental Management*, *29*(5), 1799–1815. https://doi.org/10.1002/csr.2328
107. Maniu, I., Costache, C., & Dumitraşcu, D.-D. (2021). Adoption of green environmental practices in small and medium-sized enterprises: Entrepreneur and business policies patterns in Romania. *Sustainability*, *13*(9), 4968. https://doi.org/10.3390/su13094968
108. McDougall, N., Wagner, B., & MacBryde, J. (2019). An empirical explanation of the natural-resource-based view of the firm. *Production Planning & Control*, *30*(16), 1366–1382. https://doi.org/10.1080/09537287.2019.1620361
109. Miah, J. H., et al. (2018). Environmental management of confectionery products: Life cycle impacts and improvement strategies. *Journal of Cleaner Production*, *177*, 732–751. https://doi.org/10.1016/j.jclepro.2017.12.073
110. Mishra, P., & Yadav, M. (2021). Environmental capabilities, proactive environmental strategy and competitive advantage: A natural-resource-based view of firms operating in India. *Journal of Cleaner Production*, *291*, 125249. https://doi.org/10.1016/j.jclepro.2020.125249
111. Montgomery, A. W., & Robertson, J. L. (2022). Why firms hide their light: Brownwash, silence, and bifurcated stakeholder communication. *Academy of Management Proceedings*, *2022*(1). https://doi.org/10.5465/AMBPP.2022.26
112. Morales-Raya, M., Martín-Tapia, I., & Ortiz-de-Mandojana, N. (2019). To be or to seem: The role of environmental practices in corporate environmental reputation. *Organization & Environment*, *32*(3), 309-330. https://doi.org/10.1177/1086026617753154
113. Naidoo, M., & Gasparatos, A. (2018). Corporate environmental sustainability in the retail sector: Drivers, strategies and performance measurement. *Journal of Cleaner Production*, *203*, 125–142. https://doi.org/10.1016/j.jclepro.2018.08.253
114. Niinimäki, K., et al. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment*, *1*(4), 189–200. https://doi.org/10.1038/s43017-020-0039-9
115. Nuskiya, M. N. F., Ekanayake, A., Beddewela, E., & Meftah Gerged, A. (2021). Determinants of corporate environmental disclosures in Sri Lanka: The role of corporate governance. *Journal of Accounting in Emerging Economies*, *11*(3), 367–394. https://doi.org/10.1108/JAEE-02-2020-0028
116. Olsen, B. C., Awuah-Offei, K., & Bumblauskas, D. (2021). Setting materiality thresholds for ESG disclosures: A case study of U. S. mine safety disclosures. *Resources Policy*, *70*, 101914. https://doi.org/10.1016/j.resourpol.2020.101914
117. Ormazabal, M., Rich, E., Sarriegi, J., & Viles, E. (2017). Environmental management evolution framework. *Organization & Environment*, *30*(1), 27–50. https://doi.org/10.1177/1086026615623060
118. Ozusaglam, S., Robin, S., & Wong, C. (2018). Early and late adopters of ISO

14001-type standards: revisiting the role of firm characteristics and capabilities. *Journal of Technology Transfer*, *43*(5), 1318–1345. https://doi.org/10.1007/s10961-017-9560-5

119. Paillé, P., & Raineri, N. (2015). Linking perceived corporate environmental policies and employees eco-initiatives: The influence of perceived organizational support and psychological contract breach. *Journal of Business Research*, *68*(11), 2404–2411. https://doi.org/10.1016/j.jbusres.2015.02.021
120. Pareek, R., Pandey, K., & Sahu, T. (2019). Corporate governance, firms' characteristics and environmental performance disclosure practices of Indian companies. *Indian Journal of Corporate Governance*, *12*(2), 142–155. https://doi.org/10.1177/0974686219881091
121. Peace, J., & Huber, K. (2023). Climate preparedness for business resilience. In Anant Sundaram & Robert Hansen (Eds.), *Handbook of business and climate change* (pp. 294–324). Edward Elgar Publishing. https://doi.org/10.4337/9781839103001.00021
122. Pechancová, V., et al. (2019). Environmental management systems: An effective tool of corporate sustainability. *Entrepreneurship and Sustainability Issues*, *7*(2). https://doi.org/10.9770/jesi.2019.7.2(3)
123. Peng, X., Yang, Z., Shao, J., & Li, X. (2021). Board diversity and corporate social responsibility disclosure of multinational corporations. *Applied Economics*, *53*(42), 4884–4898. https://doi.org/10.1080/00036846.2021.1910620
124. Piwowar-Sulej, K. (2022). Environmental strategies and human resource development consistency: Research in the manufacturing industry. *Journal of Cleaner Production*, *330*, 129538. https://doi.org/10.1016/j.jclepro.2021.129538
125. Plumlee, M., Brown, D., Hayes, R. M., & Marshall, R. S. (2015). Voluntary environmental disclosure quality and firm value: Further evidence. *Journal of Accounting and Public Policy*, *34*(4), 336–361. https://doi.org/10.1016/j.jaccpubpol.2015.04.004
126. Potrich, L., Cortimiglia, M., & de Medeiros, J. (2019). A systematic literature review on firm-level proactive environmental management. *Journal of Environmental Management*, *243*, 273–286. https://doi.org/10.1016/j.jenvman.2019.04.110
127. Powers, D. (1993). Endogenous switching regression models with limited dependent variables. *Sociological Methods & Research*, *22*(2), 248–273. https://doi.org/10.1177/0049124193022002004
128. Pucheta-Martínez, M. C., & Gallego-Álvarez, I. (2020). Corporate environmental disclosure practices in different national contexts: The influence of cultural dimensions. *Organization & Environment*, *33*(4), 597–623. https://doi.org/10.1177/1086026619860263
129. Raineri, N., & Paillé, P. (2016). Linking corporate policy and supervisory support with environmental citizenship behaviors: The role of employee environmental beliefs and commitment. *Journal of Business Ethics*, *137*(1), 129–148. https://doi.org/10.1007/s10551-015-2548-x
130. Ramus, C. A., & Montiel, I. (2005). When are corporate environmental policies a

form of greenwashing? *Business & Society*, *44*(4), 377–414. https://doi.org/10.1177/0007650305278120

131. Rivera, J. (2004). Institutional pressures and voluntary environmental behavior in developing countries: Evidence from the Costa Rican hotel industry. *Society & Natural Resources*, *17*(9), 779–797. https://doi.org/10.1080/08941920490493783
132. Roberts, L., & Gehrke, T. (1996). Linkages between best practice in business and good environmental performance by companies. *Journal of Cleaner Production*, *4*(3–4), 189–202. https://doi.org/10.1016/S0959-6526(96)00039-X
133. Salehi, M., Tarighi, H., & Rezanezhad, M. (2019). Empirical study on the effective factors of social responsibility disclosure of Iranian companies. *Journal of Asian Business and Economic Studies*, *26*(1), 34–55. https://doi.org/10.1108/JABES-06-2018-0028
134. Samadhiya, A., Agrawal, R., Kumar, A., & Garza-Reyes, J. A. (2023). Blockchain technology and circular economy in the environment of total productive maintenance: A natural resource-based view perspective. *Journal of Manufacturing Technology Management*, *34*(2), 293–314. https://doi.org/10.1108/JMTM-08-2022-0299
135. Sánchez-Medina, A., Romero-Quintero, L., & Sosa-Cabrera, S. (2014). Environmental management in small and medium-sized companies: An analysis from the perspective of the theory of planned behavior. *PloS One*, *9*(2), e88504.
136. Scott, W. R. (2008). *Institutions and organizations: Ideas and interests* (3rd ed.). SAGE Publications.
137. Seele, P., & Gatti, L. (2017). Greenwashing revisited: In search of a typology and accusation-based definition incorporating legitimacy strategies. *Business Strategy and the Environment*, *26*(2), 239–252. https://doi.org/10.1002/bse.1912
138. Seroka-Stolka, O., & Fijorek, K. (2020). Enhancing corporate sustainable development: Proactive environmental strategy, stakeholder pressure and the moderating effect of firm size. *Business Strategy and the Environment*, *29*(6), 2338–2354. https://doi.org/10.1002/bse.2506
139. Shabbir, M. S., & Wisdom, O. (2020). The relationship between corporate social responsibility, environmental investments and financial performance: Evidence from manufacturing companies. *Environmental Science and Pollution Research*, *27*(32), 39946–39957. https://doi.org/10.1007/s11356-020-10217-0
140. Shad, M. K., et al. (2019). Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner Production*, *208*, 415–425. https://doi.org/10.1016/j.jclepro.2018.10.120
141. Sharma, P., & Sharma, S. (2011). Drivers of proactive environmental strategy in family firms. *Business Ethics Quarterly*, *21*(2), 309–334. https://doi.org/DOI: 10.5840/beq201121218
142. Sharma, S., & Henriques, I. (2005). Stakeholder influences on sustainability practices in the Canadian forest products industry. *Strategic Management Journal*, *26*(2), 159–180. https://doi.org/10.1002/smj.439
143. Sharma, S., & Ruud, A. (2003). On the path to sustainability: Integrating social

dimensions into the research and practice of environmental management. *Business Strategy and the Environment*, *12*(4), 205–214. https://doi.org/10.1002/bse.366

144. Shrivastava, P. (1995). Industrial/environmental crises and corporate social responsibility. *Journal of Socio-Economics*, *24*(1), 211–227. https://doi.org/10.1016/1053-5357(95)90036-5
145. Shrivastava, P., & Hart, S. (1995). Creating sustainable corporations. *Business Strategy and the Environment*, *4*(3), 154–165. https://doi.org/10.1002/bse.3280040307
146. Solikhah, B., & Maulina, U. (2021). Factors influencing environment disclosure quality and the moderating role of corporate governance. *Cogent Business & Management*, *8*(1). https://doi.org/10.1080/23311975.2021.1876543
147. Solnørdal, M., & Foss, L. (2018). Closing the energy efficiency gap—A systematic review of empirical articles on drivers to energy efficiency in manufacturing firms. *Energies*, *11*(3), 518. https://doi.org/10.3390/en11030518
148. Székely, F., & Knirsch, M. (2005). Responsible leadership and corporate social responsibility: Metrics for sustainable performance. *European Management Journal*, *23*(6), 628–647.
149. Terza, J. (2009). Parametric nonlinear regression with endogenous switching. *Econometric Reviews*, *28*(6), 555–580. https://doi.org/10.1080/07474930802473751
150. Testa, F., Miroshnychenko, I., Barontini, R., & Frey, M. (2018). Does it pay to be a greenwasher or a brownwasher? *Business Strategy and the Environment*, *27*(7), 1104–1116. https://doi.org/10.1002/bse.2058
151. Tien, N. H., Anh, D. B. H., & Ngoc, N. M. (2020). Corporate financial performance due to sustainable development in Vietnam. *Corporate Social Responsibility and Environmental Management*, *27*(2), 694–705. https://doi.org/10.1002/csr.1836
152. Wang, F., Cheng, Z., Keung, C., & Reisner, A. (2015). Impact of manager characteristics on corporate environmental behavior at heavy-polluting firms in Shaanxi, China. *Journal of Cleaner Production*, *108*, 707–715. https://doi.org/10.1016/j.jclepro.2015.09.059
153. Wang, M.-C. (2017). The relationship between firm characteristics and the disclosure of sustainability reporting. *Sustainability 9*(4), 624. https://doi.org/10.3390/su9040624
154. Wang, Y., Lu, T., & Qiao, Y. (2021). The effect of air pollution on corporate social responsibility performance in high energy-consumption industry: Evidence from Chinese listed companies. *Journal of Cleaner Production*, *280*, 124345. https://doi.org/10.1016/j.jclepro.2020.124345
155. Whiteman, G., Walker, B., & Perego, P. (2013). Planetary boundaries: Ecological foundations for corporate sustainability. *Journal of Management Studies*, *50*(2), 307–336. https://doi.org/10.1111/j.1467-6486.2012.01073.x
156. Wolf, C., & Floyd, S. (2017). Strategic planning research: Toward a theory-driven agenda. *Journal of Management*, *43*(6), 1754–1788. https://doi.org/10.1177/0149206313478185

157. Xie, J., Nozawa, W., & Managi, S. (2020). The role of women on boards in corporate environmental strategy and financial performance: A global outlook. *Corporate Social Responsibility and Environmental Management*, *27*(5), 2044–2059. https://doi.org/10.1002/csr.1945
158. Younis, H., & Sundarakani, B. (2019). The impact of firm size, firm age and environmental management certification on the relationship between green supply chain practices and corporate performance. *Benchmarking: An International Journal*, *27*(1), 319–346. https://doi.org/10.1108/BIJ-11-2018-0363
159. Zhang, S., Wang, Z., & Zhao, X. (2019). Effects of proactive environmental strategy on environmental performance: Mediation and moderation analyses. *Journal of Cleaner Production*, *235*, 1438–1449. https://doi.org/10.1016/j.jclepro.2019.06.220
160. Zhang, Y., Guo, Y., & Nurdazym, A. (2023). How do female CEOs affect corporate environmental policies? *Corporate Social Responsibility and Environmental Management*, *30*(1), 459–472. https://doi.org/10.1002/csr.2366

Contact information

Prof. María José Ibáñez, Ph.D.
Pontificia Universidad Católica del Perú
CENTRUM Católica Graduate Business School
Lima, Peru
E-mail: maria@ischolar.science
ORCID: https://orcid.org/0000-0002-5221-1569

Prof. Felipe Vásquez-Lavín, Ph.D.
Universidad del Desarrollo
School of Business and Economics
Concepción, Chile
E-mail: fvasquez@udd.cl
ORCID: https://orcid.org/0000-0002-0767-998X

Prof. Roberto D. Ponce Oliva, Ph.D.
Universidad del Desarrollo
School of Business and Economics
Concepción, Chile
E-mail: robertoponce@udd.cl
ORCID: https://orcid.org/0000-0001-5024-7456