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STRATEGIC SILENCE: WITHHOLDING CERTIFICATION STATUS AS A HYPOCRISY AVOIDANCE TACTIC

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Abstract

We examine why organizations that obtain prominent certifications may at times elect not to publicize them. Drawing on the impression management literature, we argue and show that concerns about being perceived as hypocritical may cause organizations to strategically withhold their certification status. Using a longitudinal panel of corporations that were members of the Dow Jones Sustainability Index, a prominent environmental certification, we show that in the face of reputational threats, organizations are less likely to publicize their certification status when the threat appears to directly contradict the claims implied by the certification. Our findings suggest that the threat of hypocrisy is amplified for firms with stronger reputations in the same domain as the certification and when audience members better understand and value the certification. Our findings delineate new boundary conditions under which firms will make prosocial claims and inspire reconsideration of long-held assumptions about the process of decoupling the implementation and communication of socially valued practices. This study also provides insights for scholars of nonmarket strategy on how corporations strategically communicate with external constituents about their sustainability initiatives.

Keywords: certification, impression management, hypocrisy, sustainability, nonmarket strategy
Organizations rely on the social approval of relevant audiences to obtain the support and resources they need to survive and prosper (Meyer and Rowan, 1977; Pfeffer and Salancik, 1978; Oliver, 1991). To obtain such approval, organizations engage in various strategic actions, including using rhetoric or symbols, to cultivate positive perceptions among their target audiences (Ashforth and Gibbs, 1990; Elsbach and Sutton, 1992; Elsbach, 1994; Lounsbury and Glynn, 2001; McDonnell and King, 2013). One increasingly prevalent way that organizations manage these perceptions is by attaining and publicizing certifications (Zimmerman, 2005; Bartley, 2007; Sadowski, 2010a; York and Lenox, 2014), which we define as external evaluations made by authoritative institutional actors that formally acknowledge that an organization meets a particular standard or set of criteria (Sine, David, and Mitsuhashi, 2007; Lee, 2009). These authoritative endorsements serve as signals of quality and provide assurance that an organization has substantively implemented practices or engaged in activities that meet the requirements outlined by the certifying agency.

The extant organizational literature illustrates the benefits of certifications (Rao, 1994; King, Lenox, and Terlaak, 2005; Sine, David, and Mitsuhashi, 2007; Terlaak, 2007; Graffin and Ward, 2010), but we know little about the factors that influence why and when organizations communicate or publicize their certification status. As Delmas and Grant (2014) noted, prior research has largely overlooked the distinction between obtaining and publicizing a certification, likely because of a widely held assumption that certifications provide substantial benefits to firms. Some scholars have assumed “certification from authorized actors to always be beneficial” (Sine, David, and Mitsuhashi, 2007: 582). Although other scholars have noted that contingencies may exist that lead certifications to be “more or less influential” (Graffin and Ward, 2010: 332), the overarching assumption in the prior literature is that although the benefits of certifications
may vary, they ultimately serve as valuable symbols that should benefit organizations. Given this assumption, one could conclude that organizations that obtain certifications would naturally want to make their accomplishments known.

A number of recent examples, however, raise questions about this conclusion. Some wineries that have obtained organic certification have elected not to include the certification symbol on their product labels (Delmas and Grant, 2014). IKEA, a Scandinavian company that manufactures home furnishing products, has long been a leader in sourcing lumber certified by the Forest Stewardship Council (FSC) but does little to communicate its efforts to consumers (Stifelman, 2008). Other examples include hotels that obtain ecotourism or sustainability certifications without mentioning the certification on their websites or in marketing materials (Moriarty, 2012) and certified B Corps—companies that meet a standard of social and environmental performance—that fail to promote their certification status (Gehman and Grimes, 2016). Collectively, these examples raise a provocative question: if the presumed value of a certification is grounded in its symbolic properties and signaling powers, why would an organization that obtains a certification elect not to publicize it?

To address this question, we draw upon work on impression management to explain one plausible reason why organizations may not publicize their certification status. Central to our theory is the notion that concerns about being perceived as hypocritical could lead organizations to be “strategically silent” about their positive achievements. We theorize that such silence is most likely to occur when recent organizational actions or behaviors directly contradict the implied claims associated with the certification. Recognizing that the risk of perceived hypocrisy is likely to vary across organizations and over time, we examine and define conditions that explain when hypocrisy avoidance is most likely to occur.
To test our theory, we investigate the communication strategies of large public corporations that obtained certification in the form of inclusion in the Dow Jones Sustainability Index (DJSI). Established in 1999 by Sustainable Asset Management (SAM) and Dow Jones Indexes (DJI), the DJSI was the first global index to identify and track the performance of sustainability-driven companies worldwide and is well regarded among the socially responsible investment community for its credibility and transparency (Sadowski, 2010b). Although prevailing theory predicts that achieving certification via membership in this prestigious index would be a positive signal that firms would be inclined to publicize, we observed several instances in which firms chose to withhold rather than publicize their membership status. We explore hypocrisy avoidance as one plausible explanation for this phenomenon.

PUBLICIZING A CERTIFICATION AS AN IMPRESSION MANAGEMENT TACTIC

Organizations engage in various forms of impression management to promote positive audience perceptions. Although the content and medium of these actions may vary (Elsbach, 2003), these tactics often take the form of routinized claims that reinforce an organization’s prior reputation (Ashforth and Gibbs, 1990; Bansal and Clelland, 2004; Philippe and Durand, 2011) or strategic symbols intended to distinguish the focal organization from its peers (King and Whetten, 2008). Though organizations engage in ongoing actions to maintain or enhance public perceptions, using impression management tactics becomes increasingly important in defending against challenges or threats to an organization’s reputation (Ashforth and Gibbs, 1990; Elsbach and Sutton, 1992; Elsbach, 2003). Reputational threats can occur when stakeholders recognize organizational misdeeds and bring those actions to light in an effort to pressure the organization to rectify its actions or take responsibility for its transgressions (Bartley and Child, 2011; Vasi
and King, 2012; McDonnell and King, 2013). To defend their reputations, organizations will engage in impression management efforts to neutralize threats through rhetorical or symbolic actions that emphasize their positive attributes and socially valued activities (Elsbach, 2003). Elsbach (1994) described how spokespersons from the California cattle industry effectively deployed symbols and communication strategies to protect member organizations from reputational threats related to food safety, health, and environmental concerns. Westphal and Graebner (2010) likewise found that corporate leaders increased their impression management efforts by communicating firms’ positive attributes in response to reputational threats associated with negative analyst reports, and McDonnell and King (2013) demonstrated that firms targeted by activists’ boycotts were subsequently more likely to increase the volume of their prosocial claims.

One increasingly common symbolic claim used to defend against reputational threats is the attainment of a certification. By revealing information about organizational attributes that would otherwise be hidden from external audiences (King, Lenox, and Terlaak, 2005), certifications provide assurance that the organization is trustworthy and that its actions are aligned with socially prescribed values and actions (McDonnell and King, 2013). Such assurance can counter negative claims and neutralize reputational threats.

Prior research has suggested that certifications provide important signals that can bolster an organization’s reputation. Rao (1994) illustrated that attaining and publicizing certifications helped firms in the nascent automobile industry enhance their reputations, and Sine and colleagues (2007) identified certifications as a significant factor in boosting social perceptions of entrepreneurs in the power sector. As these and other studies have indicated, the reputation-enhancing benefits of certifications are derived from two primary factors: certifications provide
assurance about an organization’s level of performance in a given domain, and they represent a powerful signal of endorsement by other prominent and respected actors (Rao, 1998; Stuart, Hoang, and Hybels, 1999; Elsbach, 2003; Rindova et al., 2005; Hiatt and Park, 2013; Bermiss et al., 2016). Thus our baseline expectation is that organizations are likely to publicize the attainment of a certification in response to experiencing a reputational threat.

The Risks of Perceived Hypocrisy

Although organizations are likely to publicize a certification to mitigate reputational threats, at times they may elect not to publicize their certification status for strategic reasons, including the risk of being perceived as hypocritical. Like other social evaluations, hypocrisy is an external perception or judgment made by an organization’s key constituents. Perceptions of hypocrisy arise when actors make claims to which their own behavior does not conform (Effron, Lucas, and O’Connor, 2015). As social actors (King, Felin, and Whetten, 2010), organizations engage in hypocritical actions when they make positive claims that are inconsistent with recent actions or behaviors (Brunsson, 2002, 2007). For example, in 2005, General Electric launched “Ecomagination,” a self-proclaimed commitment to environmental leadership. Though the company’s stated goals were laudable, many stakeholders deemed the campaign to be an act of corporate hypocrisy, given that the company had previously been identified as one of the five-largest producers of toxic chemicals in the world (Allen, 2009). In this instance, GE’s claim (commitment to the environment) was directly contradicted by its recent actions (poor environmental performance), and such inconsistency is a necessary condition for perceptions of hypocrisy to occur.
Although some scholars have suggested that engaging in hypocritical actions can be an effective strategy for organizations to deal with “several conflicting values simultaneously” (Brunsson, 2002: xiii), consumers and other audience members may detect such organizational acts of hypocrisy and view them with ire (Wagner, Lutz, and Weitz, 2009; Janney and Gove, 2011). Such negative perceptions stem from the underlying psychological desire for consonance between beliefs and behaviors (Festinger, 1962; Elliot and Devine, 1994; Aronson, 1999). Prior research has shown that actors who make claims that are inconsistent with their actions are often perceived to lack credibility (Tedeschi, Schlenker, and Bonoma, 1971), which may lead audience members to view all other communications from them with skepticism (Rosenfeld, Giacalone, and Riordan, 1995). Other studies that have explored corporate social responsibility (CSR) communication strategies indicate that firms receive positive evaluations only if their CSR initiatives are consistent with their prior reputation (Schuler and Cording, 2006; Servaes and Tamayo, 2013) and suffer from negative consumer attitudes if their CSR claims are inconsistent with their actual behavior along those dimensions (Wagner, Lutz, and Weitz, 2009).

Beyond altering stakeholders’ perceptions, acts of hypocrisy can also lead to direct sanctions, including increased media scrutiny and public backlash from activists. Recent research has found that organizations that make claims perceived as ceremonial or superficial following negative events or wrongdoing experience an increase in negative media coverage (Zavyalova et al., 2012). Other studies have suggested that activists react more negatively to organizations that lay claim to being virtuous than to organizations that never make such claims (Lyon and Maxwell, 2011).

Several recent examples provide support for and illustrate these theoretical assertions. Verizon found itself in activists’ crosshairs after a group of bloggers discovered that the
company was co-sponsoring a political rally that was designed to support mountaintop-removal coal mining and to oppose climate legislation (Mufson, 2009). Activists viewed such actions as hypocritical given Verizon’s recent expressions of commitment to sustainability. As one activist declared, Verizon “can’t claim to be ‘going green’ and then join forces with one of the dirtiest companies in the world. They can keep saying they’re a friend to the environment until they’re green in the face, but there’s no environmentally friendly way to blow up mountains and dump them into streams” (Curry, 2009a, 2009b). Within a week of the discovery, nearly 81,000 individuals submitted letters to Verizon asking it to withdraw its support from the event. The controversy also received negative attention by major media outlets such as the Washington Post and the Huffington Post. In a similar manner, McDonald’s faced an intense and immediate backlash from customers on social media after seeking to tout its new socially responsible supply chain, a promotion that many perceived as hypocritical given the company’s blemished history of unsustainable sourcing practices (Lyon and Montgomery, 2013). Such incidents demonstrate how direct inconsistencies between claims and actions can stoke external stakeholders’ perceptions of hypocrisy.

Although such responses by the media, activists, and consumers constitute more-proximate negative consequences, perceptions of hypocrisy can also lead to long-term adverse outcomes, including a loss in reputation and decreased financial performance. Deephouse (2000) found that banks with more unfavorable media coverage had lower levels of financial performance, and King and Soule (2007) discovered that corporations targeted by protests experienced significant declines in their stock prices. Underlying each of these studies is an assumption that negative media coverage and activism can threaten an organization by generating negative perceptions among the general public and increasing the level of risk
perceived by investors (Bansal and Clelland, 2004; King, 2008; Vasi and King, 2012). Given these potentially damaging consequences, organizations should want to avoid the reputational harm associated with being perceived as hypocritical.

Although we were unable to identify any empirical studies that provide direct evidence of strategic hypocrisy avoidance, prior research has suggested that managers may be sensitive to the threat of being perceived as hypocrites. After interviewing a number of environmental managers regarding their motivations for engaging in environmentally responsible initiatives, Bansal and Roth (2000) discovered that some firms were reluctant to publicize their CSR efforts. The authors did not directly explore this phenomenon, but Bansal and Clelland (2004: 101) later acknowledged that touting one’s commitment to the environment could carry the “danger of receiving a green lashing,” particularly for firms with a strong environmental reputation. Other scholars have noted that companies in the global financial services industry were notably reluctant to follow HSBC’s progressive climate policy for fear that an increased commitment to protecting the earth’s climate could raise public expectations that, if not met, would lead to increased perceptions of hypocrisy (Oberholzer-Gee, Reinhardt, and Raabe, 2007). Nike, likewise, chose not to publicize its decision to remove polyvinyl chloride (PVC) from its shoes “because it would have been accused of green-washing” (Beder, 2002: 28). These claims are consistent with assertions that the threat of being perceived as hypocritical may “cause some firms to ‘clam up’ rather than become open and transparent” (Lyon and Maxwell, 2011: 21).

**When Will Organizations Be Strategically Silent?**

Although these examples suggest that concerns about being perceived as hypocritical may lead some firms to be strategically silent, research has yet to explain the conditions that prompt
organizations to engage in hypocrisy-avoidance tactics. Inconsistency between an organization’s claims and actions is a necessary condition for perceptions of hypocrisy to arise, but it is not likely to be sufficient. For an organization’s claims to be perceived as hypocritical, stakeholders must also be able to detect the inconsistency. Organizations could perceive that the benefits of making hypocritical claims outweigh the potential costs of perceived hypocrisy if the likelihood of detection and magnitude of response by external audiences is low. Such a caveat suggests that the risks of appearing hypocritical and the likelihood of trying to avoid the appearance of hypocrisy will be amplified under certain conditions. We identify three boundary conditions that will likely influence whether managers perceive that their actions may be detected as hypocritical. More specifically, we propose that an organization’s likelihood of publicizing a certification will be moderated by (1) the organization’s domain-specific reputation, (2) the legitimacy of the certification, and (3) the degree to which the organization experiences a reputational threat in the same domain as the certification.

**Organizational reputation.** Because stakeholders are limited in their ability to attend to organizations’ various actions (Madsen and Rodgers, 2015), we expect that organizations that attract greater attention or that operate under greater stakeholder scrutiny will experience a heightened risk of being identified as hypocritical (Marquis and Qian, 2014). Assuming that organizations will seek to avoid perceptions of hypocrisy, this increased stakeholder scrutiny should lead some organizations to withhold rather than publicize their certification status.

One characteristic that is likely to enhance the scrutiny and attention an organization receives is its reputation. Organizational reputation has been conceptualized and defined in various ways (Lange, Lee, and Dai, 2011; Pollock and Barnett, 2012), with some scholars
treating it as a global or generalized perception of favorability (McDonnell and King, 2013; McDonnell and Werner, 2016) and others maintaining that reputation is more useful when defined as a domain-specific evaluation made by certain actors (Jensen, 2008; Jensen, Kim, and Kim, 2012). We consider both constructs—generalized reputation (i.e., being known) and domain-specific reputation (i.e., being known for something)—to illustrate boundary conditions for our hypothesized effects.

Organizations that have established strong generalized reputations are generally more visible than their peers and are disproportionately celebrated by the public (Fombrun, 1996; King, 2011), particularly by the media (Rhee and Haunschild, 2006; King and McDonnell, 2014). Such visibility and attention has been shown to be particularly beneficial to organizations facing reputational threats. Prior research indicates that stakeholders are willing to give more-reputable organizations that have engaged in some form of organizational deviance the “benefit of the doubt,” essentially buffering them from the negative repercussions of a threat (Fombrun, 1996; King, 2008). Known as the halo effect, this phenomenon has been well documented in the organizational literature across a wide variety of contexts, including accounting restatements (Sharkey, 2014), earnings surprises (Pfarrer, Pollock, and Rindova, 2010), and employment discrimination (McDonnell and King, 2014).

Organizations with strong domain-specific reputations, however, may not receive these same benefits when making defensive claims, particularly when what they are known for falls in the same domain as the threat. Reputation scholars have long maintained that “being known for something” causes stakeholders to interpret actors’ actions differently and to hold such actors to higher standards of accountability (George et al., 2016). Though such high standards help stakeholders know what to expect in terms of future organizational performance, they also create
expectations that, when violated, can lead to strong negative reactions (McDonnell and King, 2014). Prior research has demonstrated that an organization with a strong domain-specific reputation receives more-severe punishments and greater media attention than its peers for similar episodes of wrongdoing (Rhee and Haunschild, 2006; Luo, Meier, and Oberholzer-Gee, 2012), particularly when the threat contradicts expectations established by its reputation in that domain (Janney and Gove, 2011).

The enhanced severity of these punishments can be explained by two key theoretical mechanisms. First is the expectancy-violation effect (Burgoon and Le Poire, 1993), the notion that stakeholders will react more strongly to actions that violate their previously held expectations about how an actor is likely to behave (Jensen, Kim, and Kim, 2012). Second is the “What is news?” effect (Luo, Meier, and Oberholzer-Gee, 2012), the idea that editors and journalists seek out stories with greater surprise or those that highlight unexpected events (McCombs, Einsiedel, and Weaver, 1991). Because organizations with stronger domain-specific reputations are expected to persist in similar behaviors, deviations from past performance represent unexpected events that are more likely to garner media attention. Both mechanisms explain why a more-reputable organization known for positive behaviors in a given domain would be more likely to be identified and punished more harshly than a less reputable organization for the same offense, even if both made similar claims.

We thus expect that an organization with a strong domain-specific reputation that faces a reputational threat will be less likely to publicize its certification status when the threat falls in the same domain as its reputation. Such a threat increases the likelihood that audiences will detect hypocritical claims and will punish the focal organization more severely. The level of such scrutiny and activism will likely be greater due to the heightened resentment that stakeholders
experience when reputable organizations violate previously held expectations. Such consequences should lead some organizations to withhold rather than publicize their certification status.

**Hypothesis 1 (H1):** Domain-specific organizational reputation will negatively moderate the relationship between a reputational threat and publicizing a certification.

**Certification legitimacy.** We also expect that the likelihood of detection, and the associated risk of perceived hypocrisy, will vary directly with the degree to which the certification is recognized as a legitimate signal. For symbols such as certifications to be used in impression management, they must be visible and salient (Elsbach, 2003). The value of a certification, like other new practices, is socially constructed (Berger and Luckmann, 1966) and thus becomes useful as an impression management tool only after achieving legitimacy in the form of collective understanding and acceptance among audience members (Searle, 1995; Briscoe and Safford, 2008). This legitimation process occurs as constituencies, including the public, other organizations, and the media, increasingly endorse, value, and discuss the certification (Hybels, 1995; Scott, 2008). The ceremonial value of certifications occurs only when they become “. . . taken for granted as legitimate, apart from evaluations of their impact on work outcomes” (Meyer and Rowan, 1977: 344). For example, Delmas and Grant (2014) noted how some wineries elected not to promote an organic certification on their product labels because of concerns that the certification would not be well understood or valued by customers. Consistent with this logic, we would expect that as certifications become more widely recognized and accepted, not only will organizations view them as more valuable symbols worth publicizing, but audiences will also become more familiar with the claims associated with the
certifications and be better equipped to detect hypocritical activities inconsistent with those claims.

When a certification is new and not yet understood by audience members, an organization might believe that it could get away with making claims by touting the certification without being detected as a hypocrite. Although the benefits associated with publicizing a less-valued certification would be low, they might seem worth pursuing given that audiences would not be prepared to identify contradictions between the certification claims and organizational actions. As the legitimacy of a certification increases, however, audience members would likely become more cognizant of the specific claims implied by the certification and be more capable of spotting contradictions in organizational behavior. Accordingly, we posit that organizations that experience reputational threats will be less likely to publicize a certification as the legitimacy of the certification increases.

**Hypothesis 2 (H2):** Certification legitimacy will negatively moderate the relationship between a reputational threat and publicizing a certification.

**Direct contradiction between threat and claims.** We also expect that the risks of perceived hypocrisy largely depend on the degree to which the organization experiences a reputational threat in the same domain as the claim implied by the certification. This insight is critical because audiences must perceive a direct contradiction between claims and actions to recognize hypocrisy (Effron and Monin, 2010; Effron, Lucas, and O’Connor, 2015). A claim may be viewed in other negative ways—as inauthentic, untrue, or instrumental—but to be viewed as hypocritical, it must lie in the same domain as the threat and thus represent incongruence between words and deeds.
Considering the relationship between claims and threats is also important given that prior research suggests that organizations make positive claims to mitigate reputational threats. Recent work has argued that positive organizational claims may be effectively used to deflect criticism or to direct attention away from a reputational threat (Ingram, Yue, and Rao, 2010; McDonnell and King, 2013). Although we do not dispute these findings, we suggest that the effectiveness of a prosocial claim as an impression management tactic is contingent upon whether the claim references prosocial activities in the same or a different domain as the threat it is intended to deflect. This distinction is critical given that attempts to make positive claims that are directly contradicted by recent negative events are more likely to be viewed as hypocritical (Godfrey, 2005) and when detected will likely wipe out the positive effects of prior good deeds (Effron and Monin, 2010).

Applying these assertions to the present context, one could expect that making a claim signifying leadership in environmentally sustainable activities would be more likely to be perceived as hypocritical for a firm experiencing activists’ protests related to its environmental practices but could be an effective strategy for a firm trying to deflect attention away from its negative labor practices. Nike, for example, was quick to tout its commitment to environmental sustainability (including inclusion on the Dow Jones Sustainability Index) after becoming a “symbol of sweatshop labor” during the 1990s (Beder, 2002: 25). Similarly, after Walmart’s public approval rating had fallen to an all-time low due to negative employment practices in 2005, the company announced that it would shift to 100-percent renewable power and become a leader on sustainability (Mitchell, 2014). Although audiences may view such actions as instrumental or strategic, in these two examples it is unlikely that the respective claims of environmental leadership would be viewed as hypocritical given that the threats experienced by
both companies were related to transgressions associated with employment practices and were outside of the environmental domain. 

We would thus expect that publicizing a certification that falls in the same domain as the reputational threat would more likely be perceived as hypocritical because it would be directly contradicted by recent evidence of poor behavior or performance. Claims that fall outside the domain of the threat, however, would not likely be deemed as hypocritical because they do not directly contradict recent actions or behaviors. Accordingly we predict that the negative moderating effects of a domain-specific reputation and certification legitimacy will be greater for threats that fall in the same domain as the certification than for threats outside the domain. Such predictions, if supported, provide strong evidence for hypocrisy avoidance as the driving mechanism behind strategic silence given that they test for the differential effects between claims that do and do not contradict recent organizational actions.

**Hypothesis 3a (H3a):** The negative moderating effect of domain-specific organizational reputation will be greater for organizations facing reputational threats in the same domain of the certification than threats outside the domain.

**Hypothesis 3b (H3b):** The negative moderating effect of certification legitimacy will be greater for organizations facing reputational threats in the same domain of the certification than threats outside the domain.

**METHOD**

To test our hypotheses, we focus on the context of corporate sustainability because it provides a setting in which an organization’s rationale for electing not to publicize a certification could be driven by concerns of perceived hypocrisy. Over the past several decades, corporations have faced increasing pressure to behave responsibly in regard to their impact on the natural environment (Hoffman, 2001; Flammer, 2013). In response, they have made significant investments in environmental initiatives and green products to differentiate themselves from
their competitors and to signal to the general public that they are environmentally conscious corporate citizens (Vogel, 2005; Vasi and King, 2012; United Nations Global Compact, 2013). The media and environmental activists have also increased their efforts to hold corporations accountable to their claims and have thus become vigilant observers, watching for evidence of environmental hypocrisy, often labeled as “greenwashing” (Lyon and Maxwell, 2011). Given these dynamics, corporate sustainability is an opportune context in which to examine both the threat of and response to perceived hypocrisy as companies learn how to manage and adapt their environmental strategies to the increased expectations surrounding environmental responsibility and the corresponding scrutiny by external audiences.

We tested our hypotheses using membership data from the Dow Jones Sustainability Index (DJSI), a well-known sustainability certification that seeks to “identify companies that are better equipped to recognize and respond to emerging sustainability opportunities and risks” (RobecoSAM, 2013: 4). Implicit in this objective is an assumption that companies that adapt to such challenges enhance their ability to generate long-term value for investors. Inclusion in the DJSI can be considered a certification for the following reasons: (1) the ultimate decision about inclusion on the index is made after a systematic evaluation by the DJSI, an external, third-party organization, (2) the DJSI is well regarded among the socially responsible investment community (Sadowski, 2010b) and can thus be considered an authoritative institutional actor, and (3) the primary objective of the DJSI is to identify companies that have met a certain standard, in this case, sustainability leadership in a particular industrial sector.

The index is constructed from an eligible universe of 2,500 companies, all of which are listed on the Dow Jones Global Index (DJGI). Each company from this universe is evaluated on an annual basis by the investment company RobecoSAM through a methodology known as the
Corporate Sustainability Assessment (CSA). As part of the assessment, companies are required to disclose their economic, environmental, and social performance using an online industry-specific questionnaire.\(^1\) Although most of the information is self-reported, each response is verified for accuracy through supporting documentation and other publicly available information. To further ensure quality and objectivity, an independent third party conducts an annual external audit of the assessment process. Following the assessment, RobecoSAM calculates a company’s total sustainability score based on a predefined and preweighted scoring structure. These scores are then used to rank each company within its own sector. Only the top 10 percent in each sector are selected as members of the DJSI.\(^2\) Even after initial inclusion, companies must continue to make investments to increase their sustainability performance because they cannot determine in advance the level of performance that will be required for inclusion in the following year.

The DJSI is internationally recognized for its transparency and objectivity and is well regarded by the investment community (Cheung, 2011). Although its primary audience consists of retail and institutional investors and participating companies (SustainAbility, 2013), the DJSI’s influence also extends to other stakeholder groups, including nongovernmental organizations (NGOs), customers, and governments. One recent study found the DJSI to be the

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\(^1\) Not all companies in the eligible universe choose to respond to the CSA. In such cases, RobecoSAM may complete the CSA questionnaire, to the extent possible, based on publicly available information. Though such practices in theory may allow firms that do not actively seek membership to become certified, representatives of RobecoSAM confirmed that companies actually selected for the index tend to be those that actively complete the questionnaire. We were unable to obtain the participation data from RobecoSAM for proprietary reasons, but prior research corroborates this assertion. Ziegler and Schröder (2010), for example, found that 92.7 percent of a sample of firms that were listed on the DJSI World Index from 1999 to 2004 voluntarily completed the questionnaire.

\(^2\) The fact that firms are ranked according to their final scores does not preclude the DJSI from being considered a certification. As Graffin and Ward (2010: 332) noted, relative evaluations “compare actors to one another to determine a relative rank-ordering of actors where some actors are necessarily certified and others are not. The resulting rank-ordering may simply be between winners and non-winners (e.g., CEO of the Year Contest; Graffin et al., 2008, Wade et al. 2006).”
most credible sustainability certification in the eyes of sustainability professionals (Sadowski, 2010b). As one of the first socially responsible investment indices, the DJSI is also used by other rating agencies as an input to their own assessment processes. The broad use of the DJSI evaluations suggests that its influence extends beyond investors.

Because of the DJSI’s prominence in the field of sustainability, companies often express initial and continued inclusion on the index as a strategic goal, and for some CEOs it is a key performance indicator (Robinson, Kleffner, and Bertels, 2011). Hewlett-Packard noted the following in its sustainability report: “We were not included on the Dow Jones Sustainability or the FTSE4Good listing in 2002. Our goal is to be listed on both in 2003” (Hewlett-Packard, 2003: 16). Ford Motor Company likewise declared that though its selection to the DJSI is “a sign that we are heading in the right direction, we recognize the inherent challenge of continuous improvement that our inclusion implies” (Ford, 2003: 64). After being removed from the index in 2013 after seven consecutive years, State Street acknowledged that “the ever-increasing standards for corporate responsibility performance mean we need to up our game” (State Street, 2014: 13).

Such improvement efforts, however, come at a cost. Many companies have noted that the application process is time-consuming, requiring a significant commitment to complete (Searcy and Elkhawas, 2012). One study found that first-time members experienced a negative dip in

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3 This survey included more than 1,000 sustainability professionals representing a variety of corporate, government, NGO, academic, and service organizations.

4 CSRHUB, a ratings aggregator used by managers, researchers, and activists, designs its evaluations based on inputs from over 80 sources, including the DJSI (CSRHUB, 2016). GoodGuide, a rating agency focused on evaluating consumer products, incorporates data from ASSET4 (Sadowski, 2010b), another rating agency that explicitly evaluates whether a firm belongs to the DJSI (Thomson Reuters, 2013).

5 Like the DJSI, the FTSE4Good Index is a socially responsible investment (SRI) index that seeks to identify companies that demonstrate strong environmental, social, and governance (ESG) practices (see www.ftse.com). Although these two indices use distinct rating methodologies (Chatterji et al., 2016), both rely on similar pieces of information when constructing their respective indices.
accounting-based performance relative to comparable nonmembers (López, García, and Rodríguez, 2007), presumably reflecting the initial operational enhancements and reporting expenditures required to achieve inclusion (Robinson, Kleffner, and Bertels, 2011).

Despite these costs, many firms assume that the external validation of their sustainability efforts can lead to enhanced financial performance and long-term value (Peloza et al., 2012). Several studies have found that newly added firms experience positive abnormal returns upon inclusion, indicating that investors generally view inclusion as a positive signal (Cheung, 2011; Robinson, Kleffner, and Bertels, 2011; Hawn, Chatterji, and Mitchell, 2014). Although other benefits are difficult to quantify, companies have noted that inclusion on the index can increase perceptions of legitimacy among socially conscious investors and enhance their brands or reputations more generally, all factors that can help to maintain or improve the firm’s competitive position among its industry peers (Searcy and Elkhawas, 2012).

Given the initial costs and the expected benefits of inclusion, one could imagine that recognized firms would always want to publicize their DJSI membership as a signal of sustainability leadership, and this implicit assumption underlies much of the extant literature on certifications. But we found several companies that appeared to remain silent about their DJSI membership, particularly when the risk of perceived hypocrisy was increased. Advanced Micro Devices (AMD), for example, was first included as a DJSI member in 2002 and maintained its membership through the period of our study, which ended in 2014. For the first four years, AMD actively publicized its DJSI membership in its annual sustainability report. In February 2006, however, an environmental group called Save Our Springs Alliance filed a lawsuit against AMD to stop it from building a new corporate campus in a sensitive watershed area in Austin, Texas. Following this lawsuit, AMD did not publicize its membership for two years but resumed
publication again in 2008 and continued to do so until the end of our observation window. Xcel Energy, likewise, had been a member of the DJSI for six years and had publicized its membership every year in its annual sustainability report prior to 2013. Near the end of 2012, however, five environmental groups sued the Environmental Protection Agency (EPA) seeking stricter regulation of a coal-fired power plant owned by Xcel. These actions received substantial press and thus threatened Xcel’s reputation as a sustainability leader in the electric utilities sector. In the wake of this threat, Xcel did not publicize its DJSI membership the following year. Though we did not observe AMD’s or Xcel’s actual motivations for remaining silent about their DJSI membership, both examples are consistent with our arguments that the choice of publicizing or withholding membership status from external constituents is a strategic decision that could be influenced by the degree to which the signal implied by the certification is perceived as hypocritical.

**Data Sources and Sample**

To investigate our hypotheses, we first assembled a list of all U.S.-based public corporations that were listed on the DJSI World or the DJSI North America Index from 1999, the year the DJSI was first established, through 2014. We also collected environmental performance data using the MSCI ESG STATS database, formerly known as the KLD STATS database. Finally, we gathered firm-specific and other financial performance variables from Compustat. Using these data, we constructed a panel of 276 firms and 1,486 firm-year observations.6

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6 We excluded three firms and 11 firm-years from the analysis because the dependent variable was perfectly predicted by an industry dummy variable (i.e., Telecommunication Services industry, GICS Subcode 5010). Due to potential conflicts of interest, and as a matter of practicality when searching texts, we also excluded Dow Jones & Co., a seven-year member and former owner of the DJSI.
Dependent Variable

Our analysis focused on the managerial decision to publicly disclose membership in the DJSI. To evaluate this practice, we searched for any mention of DJSI membership in three key publication outlets: annual reports filed with the U.S. Securities and Exchange Commission (SEC), corporate social responsibility or sustainability reports, and corporate press releases. All three outlets are common strategic communication tools that a firm may use to convey its commitment to sustainable practices to its various stakeholders (Holder-Webb et al., 2009; Philippe and Durand, 2011; McDonnell and King, 2013). We gathered and searched annual reports using the EDGAR database made available by the SEC. The majority of corporate sustainability reports were obtained from the Corporate Register. We supplemented and validated this source by searching other relevant resources, including the Global Reporting Initiative (GRI) database, the Sustainability Report Center on socialfunds.com, and the firms’ websites. Finally, we collected corporate press releases by searching PR Newswire and Business Wire on Factiva.

For each publication outlet, we searched for any mention of DJSI membership using the following terms: Dow Jones, DJSI, index, and sustainability. Though companies often issue multiple press releases in a year, many of which may contain references to DJSI membership as a boilerplate message, we included only press releases that were specifically designed to communicate the firm’s inclusion in the DJSI. Because corporate responsibility or sustainability reports sometimes communicate index membership using the DJSI logo rather than text, we also visually scanned each report. Based on our search, we generated a binary variable, DJSI membership publicized, coded as 1 for every year that a firm publicized its membership in the DJSI and 0 otherwise. In total, we found 883 instances of firms publicizing their DJSI membership. Although the average publication rate over the panel was 59 percent (883/ 1,486),
this rate varied substantially over time, as shown in figure 1. In 1999, only 15 percent of DJSI member firms publicized their membership. By 2014, nearly 80 percent did.

---Insert Figure 1 here---

**Independent Variables**

**Reputational threats.** Perceptions of organizational hypocrisy arise when organizations make claims that directly contradict their recent actions or performance and when these contradictions are well understood and recognized by constituents. Because the claim made by publicizing DJSI membership is one of sustainability leadership (RobecoSAM, 2013), we focused our analysis on recent actions that would threaten an organization’s reputation for sustainability and thus directly contradict its claim as a sustainability leader. Recent research has suggested that the public discourse surrounding sustainability is more closely aligned with environmental issues than social issues (Weber and Soderstrom, 2014), so we limited our analysis to threats in the environmental domain. We evaluated two related types of stakeholder actions, either of which would threaten an organization’s claim of sustainability leadership: (1) environmental resolutions filed by shareholders, and (2) environmental protests, boycotts, or civil lawsuits sponsored by NGOs or other activists.

We first obtained data on environmental resolutions filed by shareholders from the EthVest database published by the Interfaith Center on Corporate Responsibility. Shareholder resolutions are proposals often put forth by socially minded investors who seek to influence corporate decision makers by generating internal debates about a firm’s policies and practices (Reid and Toffel, 2009). Such resolutions often fail to receive enough support to change corporate policies, but they nevertheless serve as a form of “disruptive activity” and can thus
threaten a firm’s reputation (Lee and Lounsbury, 2011; McDonnell, King, and Soule, 2015). Because shareholder action targeting a specific firm is a relatively rare event, we coded environmental shareholder activism, a dichotomous variable, as 1 for any firm that had been targeted by at least one environmental shareholder resolution in the prior two years (Reid and Toffel, 2009).7

To evaluate environmental activism by stakeholders who may or may not be shareholders, we analyzed newspaper articles that discussed an environmental protest, demonstration, boycott, or lawsuit. Such events may threaten an organization by generating perceptions about a firm’s behavior that cause stakeholders to call into question its prior reputation (King and Soule, 2007; King, 2008; McDonnell and King, 2013). We obtained articles by using the following search string in LexisNexis: (environmental group OR environmental organization OR environmental activist OR environmentalist) within the same paragraph (protest OR boycott OR demonstration OR lawsuit) within the same paragraph (company name) (Vasi and King, 2012). We then manually evaluated each article and eliminated false positives. Because such events are rare but could have an enduring effect on a firm’s environmental reputation (Bansal and Clelland, 2004), we coded environmental stakeholder activism as the total count of articles mentioning an environmental protest, boycott, or lawsuit in the previous two years. To reduce the influence of extreme outliers, we top-coded this value to the 99th percentile of this distribution (a count of 14 articles) (Reid and Toffel, 2009).

Central to our theory is the notion that hypocrisy avoidance is more likely to occur when the threat facing an organization is in the same domain as the claims associated with the

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7 Only 3.3 percent of the firms in our sample received more than one environmental resolution in a given year. We thus followed Reid and Toffel (2009) in using a dummy variable rather than a count to avoid the potential for spurious results caused by these outliers.
certification. To test this assertion, we also evaluated the degree of nonenvironmental shareholder activism and nonenvironmental stakeholder activism facing a firm. We operationalized nonenvironmental shareholder activism as a dichotomous variable that equals 1 if the firm had been the target of a shareholder resolution in the past two years outside an environmental domain. We operationalized nonenvironmental stakeholder activism as the number of newspaper articles that mentioned a nonenvironmental protest, demonstration, boycott, or lawsuit, top-coded at the 99th percentile (34 articles).

**Organizational reputation.** To evaluate a firm’s organizational reputation, we used social ratings data from the MSCI ESG STATS database, formerly administered by KLD Research and Analytics (KLD). We specifically focused on ratings in the environmental domain to be consistent with DJSI’s focus on sustainability. Using these data, we created a measure of each firm’s environmental reputation by summing the number of environmental strengths in every firm-year. These environmental strengths are dichotomous variables that evaluate the processes and efforts that firms employ to improve their environmental performance (Delmas, Etzion, and Nairn-Birch, 2013). Assessments are performed annually and are primarily based on publicly available information reported by the media. Detailed descriptions of these variables appear in table A1 in the Online Appendix.

**Certification legitimacy.** As a proxy for DJSI legitimacy, we counted the cumulative number of media articles (per 1,000) that mentioned the DJSI. We obtained these articles from Factiva using the following search terms: Dow Jones Sustainability, DJSGI, and DJSI. Implicit

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8 Implicit in this operationalization is the notion that these environmental performance ratings are positively correlated with a firm’s environmental reputation, or the degree to which a firm is known for strong environmental performance and practices (Lange, Lee, and Dai, 2011; Jensen, Kim, and Kim, 2012). Although the primary audience for these social ratings is socially conscious and institutional investors, many well-known CSR rankings, such as the 100 Best Corporate Citizens, have used KLD’s ratings as the primary source for their analysis (Waddock, Graves, and Kelly, 2000). We would thus expect that the KLD environmental ratings would be a proxy for a firm’s environmental reputation not only among shareholders but also for the general public.
in this approach is an assumption that media coverage reflects the accumulated discourse and
cognitive legitimacy of a given practice or structure (Kennedy, 2008) and can thus indicate the
degree to which stakeholders would be aware of and understand what it means for a firm to be a
DJSI member. A number of empirical studies have used media coverage as a proxy for cognitive
legitimacy, which supports our empirical approach (Deephouse, 1996; Bansal and Clelland,
2004; Sine, Haveman, and Tolbert, 2005; Sine, David, and Mitsuhashi, 2007).9

Our results strongly support the notion that the legitimacy of the DJSI increased over
time. In 1999, the year the DJSI was introduced, we found only 20 articles that mentioned it. By
the end of our study, the cumulative number of articles mentioning the DJSI exceeded 13,000.
Such a pattern increases the probability that stakeholders would be aware of and understand the
claims implied by the DJSI certification and would thus be better able to detect acts of hypocrisy.

Control Variables
To rule out alternative hypotheses, we controlled for a number of other factors that might
influence a firm’s propensity to publicize its DJSI membership. First, we controlled for firm size
using log total revenue, as prior research has found company size to be positively correlated with
the likelihood of environmental disclosure (Reid and Toffel, 2009; Lewis, Walls, and Dowell,
2014) and, more generally, the number of prosocial claims made by a firm (McDonnell and
King, 2013). Because corporate social and environmental initiatives often take a subordinate role
to a firm’s profitability goals (Margolis and Walsh, 2003), we suspected that the use of valuable

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9 Though our initial assumption was that the majority of the articles counted would mention the DJSI in a positive
light, we acknowledge this simple count could be problematic if some or even many of the articles reference the
DJSI in a negative light. To address this issue, we performed a content analysis of each article in our sample
following methodology proposed by Pfarrer, Pollock, and Rindova (2010) and found that 99.1 percent of the articles
mentioning the DJSI had a positive or neutral tone, thus mitigating this concern.
corporate resources to publicize certification status could also depend on the firm’s prior financial performance. We thus included a measure of financial performance, \textit{return on assets (ROA)}, calculated as income before extraordinary items divided by total assets.

We also sought to control for a firm’s general tendency and capacity to publish environmental information. Prior research has shown that organizations whose operations pose a greater risk to the environment are more likely to be heavily regulated and scrutinized by the state (Bansal and Roth, 2000; Reid and Toffel, 2009; Chatterji and Toffel, 2010) and will thus establish sophisticated reporting structures and processes aimed at increasing the transparency of their operations and impacts (Lyon and Maxwell, 2011). To control for a firm’s \textit{environmental risk}, we included the sum of environmental concerns as evaluated by KLD (Eesley, DeCelles, and Lenox, 2016). We also included a measure of \textit{CSR press releases (log)}, which counts the number of CSR-related press releases issued by the focal firm in the current year excluding any press release focused on communicating a firm’s membership in the DJSI. We obtained these counts directly from Factiva. Finally, we included the variable \textit{CSR committee} to evaluate whether a firm had a board committee with explicit responsibility for corporate social responsibility, social policy, public policy, or environmental issues. These procedural and structural features can serve as a proxy for a firm’s general willingness and capacity to collect and report on environmental initiatives (McDonnell, King, and Soule, 2015).

We suspect that a firm’s history as a DJSI member may also influence its propensity to disclose its membership. In our review of company sustainability reports and press releases, we found several instances of firms mentioning how many years they had been DJSI members, perhaps to signal not only superior but also consistent performance. Given such patterns, we would expect that the \textit{number of years on the DJSI} would be positively associated with the
likelihood of publication. But firms that are on the index for many years could also choose not to publicize their membership because they are concerned about marketing fatigue or because such an achievement could become a taken-for-granted expectation among external stakeholders. To control for this possibility, we squared this variable to account for any curvilinear effects between the number of prior firm-membership years and the likelihood of publication in the focal year.

The relative importance of promoting DJSI membership could also be either crowded out or amplified by other confounding news. On one hand, proactive firms characterized by a progressive corporate culture (Vasi and King, 2012) often engage in socially responsible practices outside an environmental domain and may thus be less inclined to publicize their DJSI membership given the multitude of other initiatives, certifications, and awards that they can promote. On the other hand, firms may take advantage of strategic opportunities to bolster their image, particularly when they are perceived as socially irresponsible (Brammer and Millington, 2005; Muller and Kraussl, 2011). To control for the first possibility, we used the KLD STATS database to evaluate a firm’s reputation for corporate responsibility by summing the number of nonenvironmental CSR strengths for the focal firm in the prior year (Briscoe and Safford, 2008; McDonnell, King, and Soule, 2015).10 We then controlled for a company’s reputation for corporate irresponsibility by summing the number of nonenvironmental CSR concerns for the focal firm in the prior year.

The likelihood of publicizing DJSI membership could be negatively affected by significant changes in organizational structure. For example, a company that has announced that

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10 KLD rates a company’s positive and negative CSR performance across several domains including community relations, diversity initiatives, employee relations, human rights initiatives, and socially controversial business practices (Vasi and King, 2012; Flammer, 2015).
it will be acquired would seem less likely to promote its DJSI membership simply because it expects not to exist as a distinct organizational entity in the near future. To control for such a possibility, we included a dichotomous variable, *pending merger*, coded as 1 for firms that had announced or completed a merger in the focal year. These acquisition announcements were identified using the SDC Platinum database coupled with financial reports (i.e., 10-K, 10-Q, and 8-K) from the SEC website.

Firms that easily cleared the threshold for DJSI inclusion (i.e., those in the 99th percentile) might be more inclined to publicize their membership knowing that they are likely to remain on the index, while firms that are “just good enough” (i.e., the 90th percentile) might be wary of touting an achievement that they could be at risk of losing the following year. To account for this possibility, we used information from the *Sustainability Yearbook*, an annual report published by RobecoSAM. To be listed in the yearbook, a company must achieve a DJSI score that falls in the top 15 percent of its industry. The company with the highest score is named as the sector leader. Companies whose score falls within 1, 5, and 10 percent of the sector leader receive the following distinctions respectively: RobecoSAM Gold Class, RobecoSAM Silver Class, and RobecoSAM Bronze Class. Though such categorization fails to distinguish the performance of firms in the same category (Graffin and Ward, 2010), it nevertheless gives a coarse ranking of relative performance in an industry. Accordingly, we included indicator variables for the *DJSI sector leader, Gold Class, Silver Class, Bronze Class, and Yearbook* to control for variation in publication strategies based on intra-industry performance.

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11 Although the DJSI does not publish the performance of each individual company, all participating firms receive reports that list their overall scores, as well as the top, average, and lowest scores in their industries (SustainAbility, 2013).
DJSI members may also be less inclined to trumpet their inclusion if their membership information is already available and easily accessible to the public. Firms could assume that external stakeholders already know about their inclusion on the index, especially if their membership is published by the DJSI, and thus not see the need to report it themselves. To rule out this possibility, we evaluated each annual press release issued by the DJSI for any specific mention of a firm. Consistent with previously recorded statements, we found that the DJSI discloses the names of sector leaders, as well as the additions and deletions resulting from the annual review process (SustainAbility, 2013). We thus included, in addition to the DJSI sector leader variable listed above, another indicator variable to evaluate whether being a new DJSI addition had any impact on the likelihood of publication.

Finally, through conversations with RobecoSAM, we learned that the DJSI World Index is generally seen as the most prestigious of the Dow Jones Sustainability Indices because firms are essentially competing for recognition against their global peers rather than only national peers. We thus included an indicator variable coded as 1 for firms that were included on the DJSI World index and 0 otherwise.

**Model Specification**

Firms included on the DJSI self-select into consideration for membership by answering the Corporate Sustainability Assessment (CSA) questionnaire. Such selection could nevertheless bias our results if factors that predict the likelihood of becoming certified also influence the likelihood of publicizing the certification (Hamilton and Nickerson, 2003; Bascle, 2008). Because most firms likely seek to become certified with the intention of publicizing that certification to their stakeholders, we used a two-stage Heckman probit model to control for self-
selection. As a variation of the original Heckman selection model, the Heckman probit model is more appropriate when the primary variable of interest is dichotomous rather than continuous (King, 2008). We provide details of the first-stage regression in the Online Appendix.

In the second stage, we used a probit regression to estimate the likelihood that a firm would publicize its DJSI membership. As a control for self-selection, we included the inverse Mills ratio generated from the first-stage model. In both the selection and publication models, we included a series of industry dummies (as defined by RobecoSAM) to account for unobserved differences between industrial sectors that are constant over time. To avoid concerns about simultaneity or reverse causality, we lagged all independent and moderating variables by one year (Reid and Toffel, 2009; Lewis, Walls, and Dowell, 2014). We also reported standard errors clustered by firm to accommodate potential serial correlation within firms (Marquis, Toffel, and Zhou, 2016). We display descriptive statistics and correlations for all variables in table 1.

---Insert Table 1 here---

RESULTS

Second-stage Prediction Models

We display the results for the moderating effects of environmental reputation in table 2. Because the interpretation of interaction effects when using probit regression is inherently difficult (Hoetker, 2007), we also interpret our results using average marginal effects and graphs.

Based on hypothesis 1, we expected the relationship between reputational threats and subsequent publicizing of DJSI membership to be negatively moderated by a firm’s prior environmental reputation. Our results strongly support this prediction. As shown in models 1 and 3 of table 2, a

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12 Each firm is assigned to one of the 59 RobecoSAM peer groups, which are based on the Global Industrial Classification Standard (GICS) (RobecoSAM, 2013).
strong environmental reputation negatively moderates the effect of shareholder activism (z-score = –2.09, p-value = .036) and stakeholder activism (z-score = –2.22, p-value = .026) on subsequent DJSI publication, thus supporting H1.

---Insert Table 2 here---

These interaction effects can be seen visually in figures 2a and 2b. Consistent with prior work (McDonnell and King, 2013), we find that firms with a low environmental reputation (20th percentile) are increasingly more likely to publicize their DJSI membership as the level of the threat increases. In line with our predictions, however, we find that the positive relationship between the level of the reputational threat and likelihood of publication becomes negative for firms with a high environmental reputation (80th percentile). When we compare the average marginal effects across groups (high vs. low environmental reputation), we find that the probability of publicizing DJSI membership decreases by 12.5 percentage points (p-value = .039) when a firm becomes the target of an environmental shareholder resolution and 3.6 percentage points (p-value = .029) for every media article that mentions an environmental protest, boycott, or lawsuit. These results are consistent with our arguments that the increased scrutiny and expectations associated with a strong reputation can deter firms that face reputational threats from publicizing certifications due to a heightened risk that their actions may be perceived as hypocritical.

---Insert Figures 2a and 2b here---

As hypothesis 3a indicated, we also expected that the negative moderating effects of an environmental reputation would be stronger for threats in the same domain as the certification—in this case the domain of environmental sustainability—than for threats that fall outside the domain. We display the results for this hypothesis in columns 2 and 4 of table 2. Using Wald
tests, we find that the negative moderating effects of environmental reputation were significantly stronger in magnitude for environmental shareholder activism ($\chi^2 = 2.58, p$-value $= .054$) and environmental stakeholder activism ($\chi^2 = 4.65, p$-value $= .016$) than for threats outside this domain. These results provide strong empirical support for hypocrisy avoidance as the key mechanism driving the “strategic silence” we observe, given that hypocrisy by definition requires a direct contradiction between claims and actions.

As outlined in hypothesis 2, we expected the relationship between reputational threats and subsequent publicizing of DJSI membership to be negatively moderated by the legitimacy of the DJSI. Again we find strong support for this hypothesis. As shown in models 1 and 3 of table 3, we find that the degree of DJSI legitimacy negatively moderates the effect of shareholder activism ($z$-score $= –3.84, p$-value $= .000$) and stakeholder activism ($z$-score $= –2.04, p$-value $= .041$) on subsequent DJSI publication, thus supporting H2.

---Insert Table 3 here---

We graph both interactions in figures 3a and 3b. We find that when the legitimacy of the DJSI is low (20th percentile), firms are increasing more likely to publicize their DJSI membership as the level of the threat increases. This positive relationship, however, becomes negative at high levels of DJSI legitimacy (80th percentile). When we compare the average marginal effects across groups (high vs. low DJSI legitimacy), we find that the probability of publicizing DJSI membership decreases by 24.5 percentage points ($p$-value $= .000$) when a firm becomes the target of an environmental shareholder resolution and 2.5 percentage points ($p$-value $= .078$) for every media article that mentions an environmental protest, boycott, or lawsuit. These results are consistent with our arguments that the risk of perceived hypocrisy will increase as the DJSI becomes more legitimate because stakeholders will become more familiar with the
claims associated with DJSI membership and thus be better equipped to detect hypocritical activities that are inconsistent with those claims.

---Insert Figures 3a and 3b here---

As predicted in hypothesis 3b, we also expected that the negative moderating effects of DJSI legitimacy would be stronger for firms that face a threat within an environmental domain. We display the results for this hypothesis in columns 2 and 4 of table 3. Again, using a Wald test, we find that the negative moderating effects of DJSI legitimacy were significantly stronger in magnitude for environmental shareholder activism ($\chi^2 = 16.80, p\text{-value} = .000$) and environmental stakeholder activism ($\chi^2 = 3.14, p\text{-value} = .038$) than for threats in a nonenvironmental domain. These results provide strong support for hypocrisy avoidance as the key mechanism that explains why a firm would remain silent about its DJSI membership.

Though the control variables were not the primary focus of our analysis, they nevertheless help to rule out alternative explanations for our findings. As one would expect, we find that the capacity to communicate about environmental initiatives, as measured by the number of CSR press releases, was positively related to the likelihood of publication. We also find a strong positive main effect for the number of years on the DJSI but also a strong negative effect on the squared term. The negative coefficient on the squared term, in particular, suggests that the influence of being a serial member on the likelihood of DJSI publication begins to taper off over time, presumably because multi-year members have come to meet stakeholders’ expectations and therefore do not need to communicate their membership in the future, or because of concerns about marketing fatigue. Firms with a strong reputation for corporate responsibility were less likely to publicize, perhaps reflecting a “crowding out” effect from other socially responsible initiatives, certifications, and awards. Firms that were leaders of their
respective sectors (DJSI sector leaders) were more likely to publicize their membership, as were firms listed on the more prestigious DJSI World index. Across all specifications we find a negative and statistically significant coefficient for the inverse Mills ratio, suggesting that our results are likely to be influenced by selection bias, thus providing further support for our empirical strategy.

**DISCUSSION**

Organizations engage in various strategic actions to influence and cultivate positive perceptions among their relevant audiences. Although prior studies have pointed to certifications as an effective tool in enhancing these social evaluations, we sought to examine why organizations might choose to withhold rather than publicize their certification status. Drawing on insights from the literature on impression management and organizational hypocrisy, we proposed that concerns about being perceived as hypocritical could lead organizations to remain strategically silent about their achievements in attaining certifications. We predicted that these concerns would be affected by the degree to which direct inconsistencies between the claims implied by the certification and organizational misdeeds could be detected and viewed as hypocritical.

We tested our theory by examining whether corporations publicized their membership in the Dow Jones Sustainability Index (DJSI), a prominent sustainability certification. Consistent with our predictions, we found that firms were less likely to publicize their DJSI membership when facing reputational threats in the domain of the natural environment, arguably because such inconsistency between claims and actions could be perceived as hypocritical, a perception that most corporations would like to avoid. Our results, however, indicated that hypocrisy avoidance occurred only when a firm had a strong environmental reputation and the legitimacy of the DJSI
certification increased. Both factors would increase the likelihood of hypocritical acts being detected and thus lead firms to remain silent about their DJSI membership. We also found that this effect of hypocrisy avoidance was stronger for environmental threats than for nonenvironmental threats, suggesting that concerns about appearing hypocritical were much more likely to drive firms to remain silent than concerns about appearing instrumental or strategic. Our results complement and extend prior literature on impression management, institutional theory, and corporate environmental disclosure.

**Prosocial Claims as an Impression Management Strategy**

This study speaks directly to a growing conversation in the impression management literature on the use of prosocial actions as an impression management strategy (Bansal and Clelland, 2004; Ingram, Yue, and Rao, 2010; McDonnell and King, 2013; Werner, 2015). Prior research has shown that firms facing threats to their reputations will subsequently increase the volume of prosocial claims (McDonnell and King, 2013), ostensibly as a way to neutralize the threat with positive information. We extend this work by outlining new conditions under which firms use prosocial claims as an impression management tactic.

Consistent with prior research, we show that firms facing reputational threats are more likely to make subsequent prosocial claims (e.g., publicize a certification). Such claims, however, are less likely to occur when the claim (e.g., publicizing a sustainability certification) falls in the same domain as the threat (e.g., environmental sustainability) and when the inconsistency between the claim and the threat is readily apparent to and understood by stakeholders. These findings demonstrate that it is important for impression management
scholars to consider not only the volume of prosocial claims made but also the content of each claim and how it relates to the domain of the threat that organizations are seeking to mitigate.

Our findings also shed light on the differential effects of generalized reputation (being known) and domain-specific reputation (being known for something) (Lange, Lee, and Dai, 2011) on the likelihood of responding to reputational threats. Recent research has demonstrated that firms with a strong generalized reputation are more likely to respond to reputational threats by making prosocial claims, presumably because they have the most to lose if they fail to respond (McDonnell and King, 2013; King and McDonnell, 2014). We demonstrate that in some situations, having a strong domain-specific reputation can lead to the opposite effect. We found that firms with strong environmental reputations were less likely to respond to related threats to their reputations by making prosocial claims, arguably because a strong domain-specific reputation increases both the likelihood of being identified as a hypocrite and the associated cost of this negative social evaluation. Given these contrasting effects, our findings suggest that scholars examining organizational responses to reputational threats should also consider an organization’s domain-specific reputation and how it relates to the domain of threat.

Although we focused on the negative implications associated with perceptions of hypocrisy, the literature on organizational hypocrisy suggests that hypocritical acts may at times be necessary or unavoidable (Brunsson, 2002; March, 2007; Christensen, Morsing, and Thyssen, 2013). Unfortunately, prior literature has provided little guidance on the extent to which managers are cognizant of the potential for their actions to be viewed as hypocritical and when this is more or less of a concern. Our findings contribute to this conversation by suggesting that organizations are aware of and concerned with the risk of being perceived as hypocritical and are less likely to engage in hypocritical actions when the likelihood of detection increases and when
these inconsistencies represent salient departures from the organization’s domain-specific reputation.

Although our study focused on hypocrisy avoidance as the primary explanation for the strategic silence that we observed, it is important to consider whether similar dynamics might generalize to other types of rating or rankings systems. A key difference between certifications and other types of awards or rating systems is the specificity of the implied claims: certifications are generally awarded based on very specific criteria that are evaluated by an outside organization, while other types of awards or rankings may be more opaque about the criteria on which they are based and the actions organizations take to win them. Such ambiguity regarding the criteria and performance evaluation could make it more difficult for audiences to recognize instances of hypocrisy (Wagner, Lutz, and Weitz, 2009). Similarly, claims that a firm makes about self-regulations or voluntary initiatives may be more difficult to evaluate. And if stakeholders consider such claims to be idealistic or aspirational, they may be less likely to punish an organization that does not live up to them (Fassin and Buelens, 2011; Christensen, Morsing, and Thyssen, 2013). These insights represent promising avenues for future research that can help unpack how organizations use or avoid hypocritical behavior as an impression management strategy.

Communication in Institutional Theory

This paper also helps to reconcile a disconnect between theory that predicts that firms would be motivated to tout the attainment of a certification and examples of firms electing to remain silent about such an achievement. By providing a more-nuanced analysis of how organizations communicate about their actions, we take a step in resolving this disconnect.
Our study reexamines prevailing beliefs about how organizations engage in the act of decoupling as a communication strategy. Organizational scholars have long advanced the idea that the success of organizations is a function of not only their technical capabilities but also their social evaluations. These two dimensions are distinct and at times may even be contradictory. For these reasons, organizations may engage in decoupling as a way to reap the social benefits associated with symbolically adopting a practice, regardless of the extent to which they actually implement the practice (Meyer and Rowan, 1977). This act of ceremonial adoption independent of substantive implementation, or decoupling, has been repeatedly identified as a tactic organizations use to navigate complex social environments (Edelman, 1992; Westphal and Zajac, 1994, 1998; Zbaracki, 1998; Boxenbaum and Jonsson, 2008).

Certifications, however, are unique in that they are intended to provide verification of substantive implementation. Although it is typically assumed that the very purpose of a certification is to deliver a signal verifying and endorsing an organization’s performance in a certain domain, firms that obtain certifications must nevertheless actively communicate their certification status to relevant stakeholders. To date, research has generally assumed that attaining a certification will naturally lead to it being publicized, overlooking the fact that these are separate and distinct processes (Delmas and Grant, 2014).

By differentiating between the processes of attaining and publicizing certifications, this study draws attention to a seldom-considered act of “reverse decoupling.” In contrast to the typical process of decoupling, in which organizations make symbolic claims without making substantive changes, reverse decoupling involves organizations substantively implementing changes without making symbolic claims. Thus our study adds to a growing conversation about how organizations navigate complex institutional environments (Seo and Creed, 2002; Battilana
and Dorado, 2010; Pache and Santos, 2010; Bromley and Powell, 2012; Thornton, Ocasio, and Lounsbury, 2012). More generally, this study inspires new conversations about largely taken-for-granted assumptions about the use of symbols and how they are communicated, a topic of particular interest for organizational scholars who have sought to understand how organizations engage in symbolic and substantive practices to enhance their reputations and legitimacy (Cornelissen et al., 2015; George et al., 2016).

Though our study was focused on explaining whether a firm would communicate its certification status to a general audience, future research could extend this work by examining different strategies for how organizations communicate with specific audiences and respond to different types of threats (Cornelissen et al., 2015). This is an important area of inquiry given the growing body of work indicating that threats from different types of stakeholders or activists have different implications for firms (Vasi and King, 2012; Waldron, Navis, and Fisher, 2013; Pacheco, York, and Hargrave, 2014; Hiatt and Carlos, 2015; Hiatt, Grandy, and Lee, 2015).

**Strategic Silence as a Nonmarket Strategy**

Our findings also contribute to an emerging scholarly discussion around the communication of corporate social and environmental practices as part of a firm’s nonmarket strategy. Although many companies actively tout their environmental initiatives, others have been hesitant to disclose environmental information or call attention to their socially responsible endeavors (Bansal and Roth, 2000; Delmas and Burbano, 2011; Lyon and Maxwell, 2011). Such reluctance can be attributed to concerns that touting one’s environmentally responsible initiatives might draw additional scrutiny that could increase the likelihood of being labeled as a “greenwasher” by environmental activists, an outcome that could significantly affect a firm’s
reputation and perceived risk (Bansal and Clelland, 2004; King, 2008; Vasi and King, 2012). Known as “greenhush,” this phenomenon of withholding information or remaining silent has become an increasingly common behavior among large corporations that are under the ever-watchful eye of environmental activists (Horiuchi et al., 2009).

Most evidence of greenhush has been anecdotal, but recent empirical research provides some support for the phenomenon. Kim and Lyon (2011) found that investor-owned utilities operating in states with strong Sierra Club membership were less likely to join a government-sponsored voluntary disclosure program, presumably because environmental groups considered participation in the program to be a form of greenwashing. Other scholars have examined the content of environmental disclosure and have found that increased scrutiny by stakeholders and society at large can lead to more-accurate (Marquis, Toffel, and Zhou, 2016), more-substantive (Marquis and Qian, 2014), or even overly modest disclosures (Kim and Lyon, 2015). Underlying each of these studies is the notion that the threat of environmental activism may drive firms to carefully consider how to communicate their positive environmental activities. Consistent with this line of research, our results indicate that corporations facing reputational threats due to recent poor environmental performance are less likely to publicize their membership in the DJSI. These findings thus lend strong empirical support to previous anecdotal assertions that managers are concerned about their organizations being labeled as hypocrites and will remain strategically silent about their environmentally positive activities if such communications may place the firm at risk of being targeted by activists.

From a nonmarket strategy perspective, this study speaks to the broader question of how corporations can effectively communicate their socially and environmentally responsible practices. We highlight how factors that increase the risk of perceived hypocrisy are associated
with a lower incidence of disclosure. Future research could examine other disclosure strategies, such as selectively manipulating the content, timing, and target audiences of each disclosure. Such questions are particularly relevant given that past literature suggests that firms can accumulate goodwill by proactively engaging in impression management activities, which create insurance-like benefits that provide protection against future threats (Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009).

More generally, our findings speak to a growing conversation about the non-market strategies that firms enact to garner support from broader stakeholder audiences, such as activists, political actors, and community leaders (Bonardi, Holburn, and Vanden Bergh, 2006; Henisz, Dorobantu, and Narrey, 2014; King and Walker, 2014; McDonnell and Werner, 2016). We provide a better understanding of the underlying mechanisms that influence decisions related to managing organizational reputation (Mellahi et al., 2016). Establishing and maintaining a strong reputation is a key priority for managers given that the benefits of positive reputations include not only the differentiation of the focal organization from competitors but also favorable treatment from other important stakeholders, including political and regulatory actors (Hiatt and Park, 2013; Werner, 2015). Our findings echo recent studies that illustrate the role of organizations in not only engaging in reputation-enhancing activities but also shaping the narrative around how those activities are viewed and evaluated by audiences (Bermiss, Zajac, and King, 2014). Building on these studies, we highlight the potential risks that may be associated with active communication strategies that could be viewed as hypocritical. Thus we depart from prior literature that emphasizes strategic action to consider the notion that at times organizations may engage in strategic inaction as a means of responding to reputational threats.
Although our study indicates that inaction may be part of an organization’s strategic repertoire, future work is needed to better understand the implications of inaction for different outcomes.

Finally, we highlight a potential unintended consequence of hypocrisy avoidance. Although strategic silence could potentially benefit firms by protecting them from the risks of being labeled as hypocrites, the phenomenon of strategic inaction—refraining from publicizing prosocial actions—could adversely affect the diffusion of socially and environmentally responsible practices. Prior research has found that the diffusion and eventual institutionalization of socially responsible practices is largely driven by the adoption of progressive policies by prominent organizations, in particular by those that have reputations for or histories of being resistant to activists’ requests (Briscoe and Safford, 2008; Briscoe, Gupta, and Anner, 2015). Though these studies suggest that prominent organizations play an important role in the diffusion of socially desirable practices, our results suggest that prominent organizations are also the ones most likely to be concerned about the risks of hypocrisy. Such concerns could cause these key organizations to remain silent about their environmental accomplishments, thus hindering the diffusion of socially desirable activities. Our findings suggest that policy makers and stakeholders interested in the adoption and implementation of socially responsible practices should be careful that their efforts to incentivize corporate accountability through focused monitoring do not stifle the diffusion of those same practices among the broader organizational population. Such a result represents a potential unintended consequence for social activists seeking to promote change.

Acknowledgments

The authors would like to gratefully acknowledge Forrest Briscoe and three anonymous reviewers for their guidance during the review process. We also thank Glen Dowell, Paul
Godfrey, Shon Hiatt, Brayden King, David Kryscynski, Peter Madsen, Rory McDonald, Brian Reschke, Kurt Sandholtz, Wesley Sine, Pamela Tolbert, David Whetten, and participants at the 2016 Alliance for Research on Corporate Sustainability Research Conference, the 2015 Winter Strategy Conference, and the Academy of Management and Strategic Management Society annual meetings for their helpful comments on previous drafts. We also acknowledge Michael Christensen, Jacob Durney, and Daniel Quick for their research assistance. Both authors contributed equally to this work.

REFERENCES

Allen, A.

Aronson, E.

Ashforth, B. E., and B. W. Gibbs

Thomson Reuters

Bansal, P., and I. Clelland

Bansal, P., and K. Roth

Bartley, T.

Bartley, T., and C. Child

Bascle, G.

Battilana, J., and S. Dorado

Beder, S.

Berger, P. L., and T. Luckmann

Bermiss, Y. S., B. L. Hallen, R. McDonald, and E. C. Pahnke

Bermiss, Y. S., E. J. Zajac, and B. G. King

Bonardi, J.-P., G. L. F. Holburn, and R. G. Vanden Bergh

Boxenbaum, E., and S. Jonsson

Brammer, S., and A. Millington

Briscoe, F., A. Gupta, and M. S. Anner

Briscoe, F., and S. Safford

Bromley, P., and W. W. Powell
2012 "From smoke and mirrors to walking the talk: Decoupling in the contemporary world." Academy of Management Annals, 6: 483-530.

Brunsson, N.

Brunsson, N.

Burgoon, J. K., and B. A. Le Poire
1993 "Effects of communication expectancies, actual communication, and expectancy disconfirmation on evaluations of communicators and their communication behavior." Human Communication Research, 20: 67-96.


Chatterji, A. K., and M. W. Toffel
2010 "How firms respond to being rated." Strategic Management Journal, 31: 917-945.

Cheung, A. W. K.

Christensen, L. T., M. Morsing, and O. Thyssen


CSRHUB

Curry, T.

Curry, T.

Deephouse, D. L.

Deephouse, D. L.

Delmas, M. A., and V. C. Burbano

Delmas, M. A., D. Etzion, and N. Nairn-Birch

Delmas, M. A., and L. E. Grant

Edelman, L. B.

Eesley, C., K. A. DeCelles, and M. Lenox

Effron, D. A., B. J. Lucas, and K. O' Connor

Effron, D. A., and B. Monin

Elliot, A. J., and P. G. Devine

Elsbach, K. D.
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Elsbach, K. D., and R. I. Sutton

Fassin, Y., and M. Buelens

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Flammer, C.

Fombrun, C. J.

Ford

Gehman, J., and M. G. Grimes

George, G., L. Dahlander, S. D. Graffin, and S. Sim

Godfrey, P. C.
Godfrey, P. C., C. B. Merrill, and J. M. Hansen  

Graffin, S. D., J. B. Wade, J. F. Porac, and R. C. McNamee  

Graffin, S. D., and A. J. Ward  

Hamilton, B. H., and J. A. Nickerson  
2003  "Correcting for endogeneity in strategic management research." Strategic Organization, 1: 51-78.

Hawn, O., A. Chatterji, and W. Mitchell  
http://sites.duke.edu/ronniechatterji/files/2014/04/DJSI-OS-Final.pdf

Henisz, W. J., S. Dorobantu, and L. J. Nartey  

Hewlett-Packard  
2003  "Global Citizenship Report."  

Hiatt, S., and W. C. Carlos  

Hiatt, S. R., J. B. Grandy, and B. H. Lee  

Hiatt, S. R., and S. Park  

Hoetker, G.  
Hoffman, A. J.

Holder-Webb, L., J. Cohen, L. Nath, and D. Wood

Horiuchi, R., R. Schuchard, L. Shea, and S. Townsend

Hybels, R. C.

Ingram, P., L. Q. Yue, and H. Rao

Janney, J. J., and S. Gove

Jensen, M.

Jensen, M., H. Kim, and B. K. Kim

Kennedy, M. T.

Kim, E.-H., and T. P. Lyon

Kim, E.-H., and T. P. Lyon
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King, B. G.  

King, B. G.  

King, B. G., T. Felin, and D. A. Whetten  

King, B. G., and M.-H. McDonnell  

King, B. G., and S. A. Soule  

King, B. G., and E. T. Walker  

King, B. G., and D. A. Whetten  

Lange, D., P. M. Lee, and Y. Dai  

Lee, B. H.  

Lee, M.-D. P., and M. Lounsbury  
Lewis, B. W., J. L. Walls, and G. W. S. Dowell  

López, M. V., A. García, and L. Rodríguez  

Lounsbury, M., and M. A. Glynn  

Luo, J., S. Meier, and F. Oberholzer-Gee  
2012  "No news is good news: CSR strategy and newspaper coverage of negative firm events." Harvard Business School, working paper 12-091.

Lyon, T. P., and J. W. Maxwell  

Lyon, T. P., and A. W. Montgomery  

Madsen, P. M., and Z. J. Rodgers  

March, J. G.  

Margolis, J. D., and J. P. Walsh  

Marquis, C., and C. Qian  

Marquis, C., M. W. Toffel, and Y. Zhou  

McCombs, M. E., E. F. Einsiedel, and D. H. Weaver  
McDonnell, M.-H., and B. King
2014  "Taxing a tarnished halo: Reputation and ambiguity in evaluations of corporate transgressions." Georgetown McDonough School of Business research paper.

McDonnell, M.-H., and B. G. King

McDonnell, M.-H., B. G. King, and S. A. Soule

McDonnell, M.-H., and T. Werner

Mellahi, K., J. G. Frynas, P. Sun, and D. Siegel

Meyer, J. W., and B. Rowan

Mitchell, S.

Moriarty, H.
2012  "To green wash, green hush, or green brand, that is the question . . ." Nurture Lakeland. May 24, http://www.nurturelakeland.org/item/to-green-wash-green-hush-or-green-brand-that-is-the-question.html

Mufson, S.

Muller, A., and R. Kräussl

Oberholzer-Gee, F., F. Reinhardt, and E. A. Raabe
2007  "UBS and climate change—Warming up to global action?" Harvard Business School Case 707-511.
Oliver, C.

Pache, A.-C., and F. Santos

Pacheco, D. F., J. G. York, and T. J. Hargrave

Peloza, J., M. Loock, J. Cerruti, and M. Muyot

Pfarrer, M. D., T. G. Pollock, and V. P. Rindova

Pfeffer, J., and G. R. Salancik

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Sine, W. D., H. A. Haveman, and P. S. Tolbert

State Street

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Stuart, T. E., H. Hoang, and R. C. Hybels

SustainAbility

Tedeschi, J. T., B. R. Schlenker, and T. V. Bonoma

Terlaak, A.

Thornton, P. H., W. Ocasio, and M. Lounsbury
United Nations Global Compact

Vasi, I. B., and B. G. King

Vogel, D.

Waddock, S., S. Graves, and M. Kelly

Wade, J. B., J. F. Porac, T. G. Pollock, and S. D. Graffin

Wagner, T., R. J. Lutz, and B. A. Weitz

Waldron, T. L., C. Navis, and G. Fisher

Weber, K., and S. Soderstrom

Werner, T.

Westphal, J. D., and M. E. Graebner
2010 "A matter of appearances: How corporate leaders manage the impressions of financial analysts about the conduct of their boards." Academy of Management Journal, 53: 15-44.

Westphal, J. D., and E. J. Zajac
Westphal, J. D., and E. J. Zajac

York, J. G., and M. J. Lenox

Zavyalova, A., M. D. Pfarrer, R. K. Reger, and D. L. Shapiro

Zbaracki, M. J.

Ziegler, A., and M. Schröder

Zimmerman, G.
2005  "The rise and significance of eco-labels and green product certifications." 

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<td>16. Pending merger</td>
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<td>18. Bronze class</td>
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<td>-.23</td>
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<tr>
<td>19. Silver class</td>
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<td>20. Gold class</td>
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<td>-.07</td>
<td>-.06</td>
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<td>21. DJSI sector leader</td>
<td>.08</td>
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<td>.00</td>
<td>-.21</td>
<td>-.03</td>
<td>.00</td>
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<td>22. DJSI addition</td>
<td>-.23</td>
<td>-.18</td>
<td>.03</td>
<td>-.03</td>
<td>-.09</td>
<td>-.10</td>
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<td>-.11</td>
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<td>23. DJSI World index</td>
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<td>-.14</td>
<td>-.02</td>
<td>.09</td>
<td>.08</td>
<td>.13</td>
<td>.19</td>
<td>.21</td>
<td>-.07</td>
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<tr>
<td>24. Number of DJSI applications</td>
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<td>.00</td>
<td>-.03</td>
<td>.21</td>
<td>.10</td>
<td>.14</td>
<td>.02</td>
<td>-.29</td>
<td>-.34</td>
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<td>25. Number of DJSI memberships</td>
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<td>.00</td>
<td>.06</td>
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<td>26. FTSE4Good</td>
<td>.31</td>
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<td>.00</td>
<td>.21</td>
<td>-.04</td>
<td>-.02</td>
<td>.04</td>
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Table 2. Moderating Effects of Environmental Reputation*

<table>
<thead>
<tr>
<th>Moderating variables</th>
<th>Model 1 Shareholder activism</th>
<th>Model 2 Stakeholder activism</th>
<th>Model 3 Stakeholder activism</th>
<th>Model 4 Stakeholder activism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental reputation</td>
<td>-.007 (.084)</td>
<td>-.010 (.085)</td>
<td>-.015 (.095)</td>
<td>-.025 (.097)</td>
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<td>DJSI legitimacy</td>
<td>.183*** (.026)</td>
<td>.183*** (.027)</td>
<td>.183*** (.027)</td>
<td>.182*** (.027)</td>
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<td>Reputational threats</td>
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<td></td>
</tr>
<tr>
<td>Environmental shareholder activism</td>
<td>.461** (.210)</td>
<td>.464** (.207)</td>
<td></td>
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<tr>
<td>Nonenvironmental shareholder activism</td>
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<td>-.084 (.169)</td>
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<tr>
<td>Environmental stakeholder activism</td>
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<td></td>
<td></td>
<td>.060 (.066) .061 (.067)</td>
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<tr>
<td>Nonenvironmental stakeholder activism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A) Environmental reputation × Environmental shareholder activism (H1)</td>
<td>-.171** (.082)</td>
<td>-.172** (.081)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(B) Environmental reputation × Nonenvironmental shareholder activism</td>
<td></td>
<td></td>
<td></td>
<td>.007 (.074)</td>
</tr>
<tr>
<td>Wald test: Coefficient on (A) ≥ (B)? (H3a)</td>
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<td></td>
<td></td>
<td>2.58*</td>
</tr>
<tr>
<td>(C) Environmental reputation × Environmental stakeholder activism (H1)</td>
<td></td>
<td></td>
<td>-.049** (.022)</td>
<td>-.049** (.022)</td>
</tr>
<tr>
<td>(D) Environmental reputation × Nonenvironmental stakeholder activism</td>
<td></td>
<td></td>
<td></td>
<td>.001 (.009)</td>
</tr>
<tr>
<td>Wald Test: coefficient on (C) ≥ (D)? (H3a)</td>
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<td></td>
<td></td>
<td>4.65**</td>
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<td>Log pseudo-likelihood</td>
<td>-659.37</td>
<td>-659.14</td>
<td>-658.73</td>
<td>-657.88</td>
</tr>
</tbody>
</table>

* p < .10; ** p < .05; *** p < .01.

* Probit regression coefficients with robust standard errors are in parentheses clustered by firm. All models include industry fixed effects. The Wald test displays a chi-squared statistic where the null hypothesis is that coefficients for reputational threats within a nonenvironmental domain are greater than or equal to coefficients for reputational threats within an environmental domain. Coefficients for the control variables are reported in Online Appendix table A3.
Table 3. Moderating Effects of DJSI Legitimacy*

<table>
<thead>
<tr>
<th>Moderating variables</th>
<th>Model 1 Shareholder activism</th>
<th>Model 2 Stakeholder activism</th>
<th>Model 3 Shareholder activism</th>
<th>Model 4 Stakeholder activism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental reputation</td>
<td>-0.048 (0.079)</td>
<td>-0.051 (0.079)</td>
<td>-0.054 (0.091)</td>
<td>-0.061 (0.092)</td>
</tr>
<tr>
<td>DJSI legitimacy</td>
<td>0.212*** (0.026)</td>
<td>0.205*** (0.026)</td>
<td>0.193*** (0.027)</td>
<td>0.194*** (0.028)</td>
</tr>
<tr>
<td>Reputational threats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental shareholder activism</td>
<td>0.605*** (0.190)</td>
<td>0.643***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonenvironmental shareholder activism</td>
<td>-0.255 (0.167)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental stakeholder activism</td>
<td></td>
<td>0.035 (0.059)</td>
<td>0.036</td>
<td></td>
</tr>
<tr>
<td>Nonenvironmental stakeholder activism</td>
<td></td>
<td>(0.010)</td>
<td>(0.017)</td>
<td></td>
</tr>
<tr>
<td>Interaction effects</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(A) DJSI legitimacy × Environmental shareholder activism (H2)</td>
<td>-0.136*** (0.035)</td>
<td>-0.145*** (0.034)</td>
<td></td>
<td></td>
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<tr>
<td>(B) DJSI legitimacy × Nonenvironmental shareholder activism</td>
<td></td>
<td>0.053 (0.038)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wald test: Coefficient on (A) ≥ (B)? (H3b)</td>
<td>16.80***</td>
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<tr>
<td>(C) DJSI legitimacy × Environmental stakeholder activism (H2)</td>
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<td>-0.015** (0.007)</td>
<td>-0.015** (0.007)</td>
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<tr>
<td>(D) DJSI legitimacy × Nonenvironmental stakeholder activism</td>
<td></td>
<td></td>
<td>-0.001 (0.003)</td>
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</tr>
<tr>
<td>Wald test: Coefficient on (C) ≥ (D)? (H3b)</td>
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<td></td>
<td>3.14**</td>
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<tr>
<td>Log pseudo-likelihood</td>
<td>-650.59</td>
<td>-648.79</td>
<td>-659.52</td>
<td>-658.50</td>
</tr>
</tbody>
</table>

* Probit regression coefficients with robust standard errors are in parentheses clustered by firm. All models include industry fixed effects. The Wald test displays a chi-squared statistic where the null hypothesis is that coefficients for reputational threats within a nonenvironmental domain are greater than or equal to coefficients for reputational threats within an environmental domain. Coefficients for the control variables are reported in Online Appendix table A4.

p < .10; ** p < .05; *** p < .01.
Figure 1. DJSI memberships publicized by year and type.*

* The overall publication rate is the percentage of DJSI members that publicized their membership in a given year. The publication rate by type in many years will exceed the overall publication rate as firms would often publicize their membership in multiple outlets.
Figure 2a. Reputation × Shareholder activism.

![Graph showing the relationship between environmental reputation and probability of publication for shareholder activism.]

Figure 2b. Reputation × Stakeholder activism.

![Graph showing the relationship between environmental reputation and probability of publication for stakeholder activism.]

Legend:
- Low Environmental Reputation
- Moderate Environmental Reputation
- High Environmental Reputation
Figure 3a. DJSI legitimacy × Shareholder activism.

Figure 3b. DJSI legitimacy × Stakeholder activism
ONLINE APPENDIX

First-stage Model and Results

To account for potential selection issues, we used a two-stage Heckman probit model to estimate the likelihood that a firm would publicize its DJSI membership. The first stage included each firm that was a member of the DJSI, as well as a comparable group of firms: all firms listed on the S&P 500 index on the date the DJSI index constituents were announced. The comparison group was updated annually given that some firms were added to or removed from the S&P 500. These firms represent an adequate comparison sample given that 90 percent of firms listed on DJSI were also members of the S&P 500 index at the time that their membership was announced.

We then used this larger sample (N = 8,113) to predict the likelihood that a firm would become a member of the DJSI. Because factors that would predict the likelihood of publicizing a certification could also predict the likelihood of becoming a member of the DJSI, we included most main effect and control variables from our second stage in the first-stage probit regression.

We also added three variables to the first-stage model: the number of DJSI applications, the number of DJSI memberships, and FTSE4Good. The first variable is a count of the number of DJSI applications per year and accounts for the increasing degree of competitiveness that likely exists as more firms apply for DJSI membership. The second variable accounts for the increasing number of DJSI memberships available over time, a factor that we would expect to increase the

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1 All control variables from the second stage were included in the first stage with the exception of the Yearbook, Gold Class, Silver Class, Bronze Class, DJSI sector leader, DJSI addition, and DJSI World indicator variables. These variables were determined simultaneously or shortly after the DJSI constituent decisions were made and thus cannot be used to predict membership in the DJSI in the focal year. We also excluded DJSI legitimacy from the first-stage model given that RobecoSAM will continue to select approximately the same number of firms (i.e., top-performing 10 percent of each industry sector) regardless of how legitimate the DJSI is perceived to be.
likelihood of being selected. The third variable indicates whether the firm had been a member of the FTSE4Good Index in the previous year. This variable, we suspected, would be highly correlated with the likelihood that a firm would be a member of the DJSI in the current year but uncorrelated with the likelihood of publicizing DJSI membership and would thus serve as a valid exclusion restriction.

The results of our first-stage selection model are displayed in table A2. As these results indicate, firms that were the target of an environmental shareholder resolution were less likely to become DJSI members, but firms that were targets of environmental stakeholder activism (i.e., protests, boycotts, lawsuits, etc.) were more likely to become DJSI members. Although one might expect that environmental stakeholder activism would indicate poor environmental performance and thus decrease the likelihood of selection, these results are consistent with recent studies that have shown that external activists often target firms with strong reputations rather than weak performers to increase the visibility of their protest activities and generate greater awareness of their grievances (Briscoe and Safford, 2008; King, 2008; McDonnell and King, 2013; King and McDonnell, 2014).

Consistent with our expectations, we discovered that firm size and strong environmental reputation positively predicted selection into the DJSI. Environmental risk concerns, however, decreased that likelihood. Having a formally designated board committee with responsibility for

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2 Two exogenous changes in the number of available memberships occurred during our sample window. In 2001, the universe of eligible companies from the Dow Jones Global Index (DJGI) was expanded from 2,000 to 2,500. Although criteria for inclusion remained the top 10 percent of each industrial sector, the expansion in the eligible universe directly increased the number of available memberships. In 2005, RobecoSAM added the DJSI North American index, which included the top 20 percent of each industrial sector for companies from North America, again increasing the number of memberships available to U.S. firms.

3 Like the DJSI, the FTSE4Good Index is a socially responsible investment (SRI) index that seeks to identify companies that demonstrate strong environmental, social, and governance (ESG) practices (see www.ftse.com). Although these two indices use distinct rating methodologies (Chatterji et al., 2016), both rely on similar pieces of information when constructing their respective indices.
corporate social responsibility, corporate citizenship, or sustainable development also increased the likelihood of selection into the DJSI, a fact that should be unsurprising given that RobecoSAM explicitly asks about board oversight and responsibilities in its survey (RobecoSAM, 2014). As expected, we found that a reputation for socially responsible (irresponsible) behavior increased (decreased) the likelihood of selection. Increasing competitiveness proxied by the number of DJSI applications decreased the likelihood of selection, while the increasing number of available memberships increased that likelihood. Finally, we found that firms who were members of the FTSE4Good in the prior year were more likely to be selected as members of the DJSI in the current year.4

4 Using a Wald test, we found the FTSE4Good indicator was a strong predictor of membership in the DJSI ($\chi^2 = 22.66, p-value = .0000$). We have no reason to expect that membership in the FTSE4Good would influence the likelihood that firms would publicize their membership in the DJSI. Subsequent analysis revealed very little correlation between membership in the FTSE4Good Index and DJSI publication ($r = .07$), supporting our supposition.
Table A1. Description of KLD Environmental Ratings

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<th>KLD environmental strengths</th>
<th>Description</th>
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<tr>
<td>Beneficial products and services</td>
<td>The company derives substantial revenues from innovative remediation products, environmental services, or products that promote the efficient use of energy, or it has developed innovative products with environmental benefits.</td>
</tr>
<tr>
<td>Pollution prevention</td>
<td>The company has notably strong pollution prevention programs including both emissions reductions and toxic-use reduction programs.</td>
</tr>
<tr>
<td>Recycling</td>
<td>The company either is a substantial user of recycled materials as raw materials in its manufacturing processes or a major factor in the recycling industry.</td>
</tr>
<tr>
<td>Clean energy</td>
<td>The company has taken significant measures to reduce its impact on climate change and air pollution through use of renewable energy and clean fuels or through energy efficiency. The company has demonstrated a commitment to promoting climate-friendly policies and practices outside its own operations.</td>
</tr>
<tr>
<td>Communications</td>
<td>The company is a signatory to the CERES Principles, publishes a notably substantive environmental report, or has notably effective internal communications systems in place for environmental best practices.</td>
</tr>
<tr>
<td>Other strength</td>
<td>The company has demonstrated a superior commitment to management systems, voluntary programs, or other environmentally proactive activities.</td>
</tr>
</tbody>
</table>

Source: Getting Started With KLD STATS and KLD's Ratings Definitions, 2006
<table>
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<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>S.E.</th>
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<td>(.067)</td>
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<td>Environmental stakeholder activism</td>
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<td>(.026)</td>
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<tr>
<td>Environmental reputation</td>
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<td>(.031)</td>
</tr>
<tr>
<td>Revenue</td>
<td>.239***</td>
<td>(.051)</td>
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<tr>
<td>Return on assets</td>
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<td>(.006)</td>
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<td>Environmental risk</td>
<td>–.102**</td>
<td>(.049)</td>
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<td>(.047)</td>
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<td>CSR committee</td>
<td>.197**</td>
<td>(.091)</td>
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<tr>
<td>Reputation for corporate responsibility</td>
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<td>(.019)</td>
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<tr>
<td>Reputation for corporate irresponsibility</td>
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<td>(.030)</td>
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<td>Pending merger</td>
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<td>(.160)</td>
</tr>
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<td>Number of DJSI applications</td>
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<td>(.000)</td>
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<td>Number of DJSI memberships</td>
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<td>(.001)</td>
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<tr>
<td>FTSE4Good</td>
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<td>(.079)</td>
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<td>Log pseudo-likelihood</td>
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* Probit regression coefficients with robust standard errors in parentheses clustered by firm. The model includes industry effects. The dependent variable evaluates whether a firm applies for and is selected into the DJSI.

*p < .10; ** p < .05; *** p < .01.
<p>| Table A3. Moderating Effects of Environmental Reputation with Control Variables* |
|----------------------------------------|----------------|----------------|----------------|----------------|
| <strong>Moderating variables</strong>               | Model 1         | Model 2         | Model 3         | Model 4         |
| Environmental reputation               | -.007           | -.010           | -.015           | -.025           |
|                                        | (.084)          | (.085)          | (.095)          | (.097)          |
| DJSI legitimacy                        | .183***         | .183***         | .183***         | .182***         |
|                                        | (.026)          | (.027)          | (.027)          | (.027)          |
| <strong>Reputational threats</strong>               |                |                |                |                |
| Environmental shareholder activism     | .461**          | .464**          |                |                |
|                                        | (.210)          | (.207)          |                |                |
| Nonenvironmental shareholder activism  | -.084           | .060           | .061           | -.014           |
|                                        | (.169)          | (.066)          | (.067)          | (0.19)          |
| Environmental stakeholder activism     |                |                |                |                |
| Nonenvironmental stakeholder activism  |                |                |                |                |
| <strong>Interaction effects</strong>                |                |                |                |                |
| (A) Environmental reputation ×        | -.171**         | -.172**         |                |                |
| Environmental shareholder activism (H1)| (.082)          | (.081)          |                |                |
| (B) Environmental reputation ×        | .007           |                |                |                |
| Nonenvironmental shareholder activism  | (.074)          |                |                |                |
| Wald test: coefficient on (A) ≥ (B)?  | 2.58*           |                |                |                |
| (C) Environmental reputation ×        | -.049**         | -.049**         |                |                |
| Environmental stakeholder activism (H1)| (.022)          | (.022)          |                |                |
| (D) Environmental reputation ×        | .001           |                |                |                |
| Nonenvironmental stakeholder activism  | (.009)          |                |                |                |
| Wald test: coefficient on (C) ≥ (D)?  | 4.65**          |                |                |                |
| <strong>Control Variables</strong>                 |                |                |                |                |
| Revenue (log)                          | -.218***        | -.212***        | -.194**         | -.187**         |
|                                        | (.081)          | (.082)          | (.085)          | (.085)          |
| Return on assets (ROA)                 | .001            | .001            | .003            | .003            |
|                                        | (.009)          | (.009)          | (.008)          | (.008)          |
| Environmental risk                     | .112            | .115            | .134            | .133            |
|                                        | (.086)          | (.087)          | (.095)          | (.096)          |
| CSR press releases (log)               | .221***         | .222***         | .20***          | .206***         |
|                                        | (.069)          | (.070)          | (.071)          | (.071)          |
| CSR committee                          | .104            | .107            | .095            | .100            |
|                                        | (.137)          | (.137)          | (.140)          | (.138)          |
| Number of years on the DJSI            | .113**          | .113**          | .116**          | .116**          |
|                                        | (.052)          | (.052)          | (.053)          | (.054)          |
| Number of years on the DJSI squared    | -.015***        | -.015***        | -.015           | -.015***        |
|                                        | (.004)          | (.004)          | (.004)          | (.004)          |
| Reputation for corporate responsibility| -.060*          | -.061*          | -.068*          | -.068*          |
|                                        | (.032)          | (.032)          | (.037)          | (.037)          |
| Reputation for corporate irresponsibility| .072            | .075            | .081            | .089*           |
|                                        | (.049)          | (.050)          | (.050)          | (.051)          |
| Pending merger                         | -.701*          | -.705*          | -.759**         | -.761**         |
|                                        | (.384)          | (.383)          | (.380)          | (.380)          |
| Yearbook                               | .422***         | .420***         | .441***         | .435***         |
|                                        | (.099)          | (.100)          | (.099)          | (.099)          |
| Bronze class                           | .662***         | .659***         | .701***         | .694***         |
|                                        | (.207)          | (.207)          | (.213)          | (.214)          |
| Silver class                           | 1.022***        | 1.028***        | 1.008***        | .998***         |</p>
<table>
<thead>
<tr>
<th></th>
<th>(.262)</th>
<th>(.264)</th>
<th>(.249)</th>
<th>(.254)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold class</td>
<td>.003</td>
<td>.007</td>
<td>.014</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>(.257)</td>
<td>(.254)</td>
<td>(.242)</td>
<td>(.246)</td>
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<tr>
<td>DJSI sector leader</td>
<td>.687***</td>
<td>.691***</td>
<td>.696***</td>
<td>.723***</td>
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<td>(.218)</td>
<td>(.218)</td>
<td>(.220)</td>
<td>(.231)</td>
</tr>
<tr>
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<td>–.050</td>
<td>–.051</td>
<td>–.032</td>
<td>–.029</td>
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<tr>
<td></td>
<td>(.121)</td>
<td>(.120)</td>
<td>(.123)</td>
<td>(.124)</td>
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<tr>
<td>DJSI World index</td>
<td>.457***</td>
<td>.460***</td>
<td>.456***</td>
<td>.459***</td>
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<td></td>
<td>(.130)</td>
<td>(.131)</td>
<td>(.130)</td>
<td>(.128)</td>
</tr>
<tr>
<td>Inverse Mills ratio</td>
<td>–.677***</td>
<td>–.687***</td>
<td>–.713**</td>
<td>–.734**</td>
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<tr>
<td></td>
<td>(.261)</td>
<td>(.261)</td>
<td>(.309)</td>
<td>(.315)</td>
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<tr>
<td>Firms</td>
<td>276</td>
<td>276</td>
<td>276</td>
<td>276</td>
</tr>
<tr>
<td>Observations</td>
<td>1,486</td>
<td>1,486</td>
<td>1,486</td>
<td>1,486</td>
</tr>
</tbody>
</table>

* $p < .10$; ** $p < .05$; *** $p < .01$.

* Probit regression coefficients with robust standard errors in parentheses clustered by firm. The dependent variable evaluates whether a firm publicized its DJSI membership in an annual report, sustainability report, or press release. All models include industry fixed effects. The Wald test displays a chi-squared statistic where the null hypothesis is that coefficients for reputational threats in a nonenvironmental domain are greater than or equal to coefficients for reputational threats in an environmental domain.
Table A4. Moderating Effects of DJSI Legitimacy with Control Variables*

<table>
<thead>
<tr>
<th>Moderating variables</th>
<th>Model 1 Shareholder activism</th>
<th>Model 2 Stakeholder activism</th>
<th>Model 3 Shareholder activism</th>
<th>Model 4 Stakeholder activism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental reputation</td>
<td>−.048 (0.079)</td>
<td>−.051 (0.079)</td>
<td>−.054 (0.091)</td>
<td>−.061 (0.092)</td>
</tr>
<tr>
<td>DJSI legitimacy</td>
<td>.212*** (0.026)</td>
<td>.205*** (0.026)</td>
<td>.193*** (0.027)</td>
<td>.194*** (0.028)</td>
</tr>
<tr>
<td>Reputational threats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental shareholder activism</td>
<td>.605*** (0.190)</td>
<td>.643*** (0.184)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonenvironmental shareholder activism</td>
<td>−.255 (0.167)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental stakeholder activism</td>
<td></td>
<td>.035 (0.059)</td>
<td>.036 (0.059)</td>
<td></td>
</tr>
<tr>
<td>Nonenvironmental stakeholder activism</td>
<td></td>
<td>−.010 (0.017)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A) DJSI legitimacy × Environmental shareholder activism (H2)</td>
<td>−.136*** (0.035)</td>
<td>−.145*** (0.034)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(B) DJSI legitimacy × Nonenvironmental shareholder activism</td>
<td>.053 (0.038)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wald test: Coefficient on (A) ≥ (B)? (H3b)</td>
<td></td>
<td>16.80***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(C) DJSI legitimacy × Environmental stakeholder activism (H2)</td>
<td>−.015** (0.007)</td>
<td>−.015** (0.007)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(D) DJSI legitimacy × Nonenvironmental stakeholder activism</td>
<td>−.001 (0.003)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Wald test: Coefficient on (C) ≥ (D)? (H3b)</td>
<td></td>
<td>3.14**</td>
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<tr>
<td>Control variables</td>
<td></td>
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</tr>
<tr>
<td>Revenue (log)</td>
<td>−.233*** (0.081)</td>
<td>−.226*** (0.082)</td>
<td>−.194** (0.085)</td>
<td>−.185** (0.085)</td>
</tr>
<tr>
<td>Return on assets (ROA)</td>
<td>−.000 (0.008)</td>
<td>−.000 (0.008)</td>
<td>.002 (0.009)</td>
<td>.003 (0.008)</td>
</tr>
<tr>
<td>Environmental risk</td>
<td>.091 (0.086)</td>
<td>.098 (0.086)</td>
<td>.116 (0.093)</td>
<td>.114 (0.094)</td>
</tr>
<tr>
<td>CSR press releases (log)</td>
<td>.218*** (0.070)</td>
<td>.219*** (0.069)</td>
<td>.207*** (0.071)</td>
<td>.213*** (0.072)</td>
</tr>
<tr>
<td>CSR committee</td>
<td>.122 (0.137)</td>
<td>.129 (.137)</td>
<td>.100 (1.141)</td>
<td>.107 (1.139)</td>
</tr>
<tr>
<td>Number of years on the DJSI</td>
<td>.124** (0.053)</td>
<td>.125** (0.053)</td>
<td>.113** (0.053)</td>
<td>.114** (0.054)</td>
</tr>
<tr>
<td>Number of years on the DJSI squared</td>
<td>−.015*** (0.004)</td>
<td>−.016*** (0.004)</td>
<td>−.015*** (0.004)</td>
<td>−.015*** (0.004)</td>
</tr>
<tr>
<td>Reputation for corporate responsibility</td>
<td>−.064** (0.032)</td>
<td>−.064* (0.032)</td>
<td>−.061* (0.037)</td>
<td>−.061* (0.037)</td>
</tr>
<tr>
<td>Reputation for corporate irresponsibility</td>
<td>.085* (0.048)</td>
<td>.080 (0.050)</td>
<td>.087* (0.051)</td>
<td>.094* (0.052)</td>
</tr>
<tr>
<td>Pending merger</td>
<td>−.737* (0.393)</td>
<td>−.719* (0.392)</td>
<td>−.766** (0.375)</td>
<td>−.773** (0.375)</td>
</tr>
<tr>
<td>Yearbook</td>
<td>.426*** (0.098)</td>
<td>.435*** (0.099)</td>
<td>.434*** (0.098)</td>
<td>.424*** (0.098)</td>
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</table>

*Table modified from Table 8.15 of the original document.
Bronze class

<table>
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Silver class

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Gold class

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DJSI sector leader

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<th>.698***</th>
<th>.718***</th>
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DJSI addition

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<th>-.039</th>
<th>-.033</th>
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DJSI World index

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Inverse Mills ratio

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<td>(.253)</td>
<td>(.252)</td>
<td>(.306)</td>
<td>(.310)</td>
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</tbody>
</table>

Firms

|       | 276      | 276      | 276      | 276      |

Observations

|       | 1,486    | 1,486    | 1,486    | 1,486    |

Log pseudo-likelihood

|       | -650.59  | -648.79  | -659.52  | -658.50  |

* Probit regression coefficients with robust standard errors in parentheses clustered by firm. The dependent variable evaluates whether a firm publicized its DJSI membership in an annual report, sustainability report, or press release. All models include industry fixed effects. The Wald test displays a chi-squared statistic where the null hypothesis is that coefficients for reputational threats within a nonenvironmental domain are greater than or equal to coefficients for reputational threats within an environmental domain.
REFERENCES

Briscoe, F., and S. Safford


King, B. G.

King, B. G., and M.-H. McDonnell

McDonnell, M.-H., and B. G. King

RobecoSAM