Working Paper

How ESG Reduces Risk: The Role of Consumers and Institutional Investors

Working Paper Number 12

Ashwin Malshe
Yi Yin
Anatoli Colicev
Yakov Bart
Koen Pauwels

WORKING PAPER

Working Paper No. 12

How ESG Reduces Risk: The Role of Consumers and Institutional Investors

Ashwin Malshe
University of Texas at San Antonio

Yakov Bart
Northeastern University

Yi Yin
Northeastern University

Koen Pauwels
Northeastern University

Anatoli Colicev
University of Liverpool

April 2023

GAP - Global Action for Policy Initiative

Address: 360 Huntington Ave.
Boston, MA, US

Email: gap@northeastern.edu

Web: https://cssh.northeastern.edu/

How ESG Reduces Risk: The Role of Consumers and Institutional Investors

Ashwin Malshe
Associate Professor, Marketing
Alvarez College of Business
University of Texas at San Antonio
ashwin.malshe@utsa.edu

Yi Yin
Postdoctoral Research Associate, Marketing
D'Amore-McKim School of Business
Northeastern University
yi1.yin@northeastern.edu

Anatoli Colicev
Chair in Marketing, Strategy and Analytics
Management School
University of Liverpool
Anatoli.Colicev@liverpool.ac.uk

Yakov Bart
Associate Professor, Marketing; Joseph G. Riesman Research Professor
D'Amore-McKim School of Business
Northeastern University
y.bart@northeastern.edu

Koen Pauwels
Distinguished Professor, Marketing
D'Amore-McKim School of Business
Northeastern University
k.pauwels@northeastern.edu

The authors thank the participants at 2022 Marketing Strategy Meets Wall Street Conference, Chicago, and 2023 Winter AMA Conference, Nashville for their insightful comments.

How ESG Reduces Risk: The Role of Consumers and Institutional Investors

Abstract

Practitioners regard firms' environmental, social, and governance (ESG) performances as a crucial risk management practice. However, no empirical evidence has yet linked ESG performances to firm risk through different stakeholders. Drawing on stakeholder theory, the authors develop a conceptual framework that posits (1) asymmetric relationships between individual E, S, and G performances and customer-based brand equity (CBBE) and institutional investor ownership (IIO), (2) the moderating role of competitive intensity in these relationships, and (3) mediating roles of CBBE and IIO in the relationships between E, S, and G performances and firms' idiosyncratic risk. Using quarterly data from 416 firms spanning 2012–2020, the authors find that CBBE and IIO indeed mediate the associations between ESG performance and idiosyncratic risk. While E performance has a positive and G performance a negative association with CBBE, E and S performances have a negative and G performance a positive association with IIO. Competitive intensity strengthens the association between S performance and CBBE and the association between E performance and IIO but weakens the association between G performance and both CBBE and IIO. The findings imply firms should carefully navigate the trade-offs associated with relationships between E, S, and G performances and multiple stakeholders.

Keywords

ESG, stakeholders, consumers, institutional investors, idiosyncratic risk, competitive intensity

In recent years, understanding the relationship between environmental, social, and governance (ESG) performance and firm risk has emerged as a crucial area of focus for practitioners (Gorley 2022). On the one hand, improving ESG performance may reduce the likelihood of significant reputational and financial damages, thereby reducing firm risk. For example, 76% of consumers report that they would discontinue relationships with companies that treat employees, communities, and the environment poorly (PwC 2021), and institutional investors increasingly prefer firms with good ESG performance (Thomson Reuters 2021). Relatedly, companies in the top quintile of ESG performance experience three times smaller drawdowns in capital markets than those in the bottom quintile (Giese 2017), implying low risk for firms with high ESG performance. On the other hand, nearly half the large U.S. companies' top executives report that they have already experienced ESG backlash, while 61% expect it to persist or intensify in the next two years (Washington and Jones 2023), suggesting that ESG performance is associated with greater firm risk. These contradictory narratives pose a challenge for executives and highlight the need for a deeper analysis of the link between ESG performance and firm risk.

This study aims to address this challenge and uncover underlying relationships by disentangling the ESG performance into individual E, S, and G performances and separately examining their associations with two primary stakeholders (consumers and institutional investors) and subsequent firm idiosyncratic risk.[1] Building on prior research, we conceptualize

[1]While we focus on idiosyncratic risk, which reflects individual firms' stock return volatility (Han, Mittal, and Zhang 2017; Moon, Tuli, and Mukherjee 2023). Prior research also highlights the role of systematic risk which captures a firm's exposure to the overall market's volatility. While it is possible that individual firm's E, S and G performance can impact the systematic risk, we focus on idiosyncratic risk because it explains a far greater share of a firm's total risk (Goyal and Santa-Clara 2003). Additionally, we do not examine abnormal returns because any unexpected changes in ESG performance are likely to affect abnormal returns in very short periods. In contrast, our study uses quarterly data, which makes it challenging to link ESG performance to abnormal returns.

ESG performance as a multidimensional construct[2] that comprises distinct E, S, and G performances (Li and Wu 2020). These performances include, for example, mitigating climate change concerns (E), improving working conditions (S), and effectively managing the legal and regulatory environment (G). While practitioners agree that E, S, and G performances may each be important for firm risk, the handful of academic studies examining these links finds mixed results (e.g., Bouslah, Kryzanowski, and M'Zali 2013; Izcan and Bektas 2022), indicating the need for a more comprehensive investigation. Accordingly, we examine the asymmetric relationships between E, S, and G performances and customer-based brand equity (CBBE) and institutional investor ownership (IIO), by focusing on the relevant metrics pertaining to two primary stakeholders: consumers and institutional investors. We posit that consumers consider firms' motives behind E, S, and G performances, while institutional investors assess the expected financial returns. Specifically, we propose that consumers perceive E and S performances as other-centered and G performance as self-centered and hence they prefer E and S performances to G performance. By contrast, we argue that institutional investors expect financial returns on E and S performances to be lower than returns on G performance, therefore preferring G performance to E and S performances.

In addition, the strength of relationships between E, S, and G performances and CBBE and IIO is likely to depend on the competitive intensity faced by firms. In competitive markets, firms confront resource scarcity. Prior research (Roux, Goldsmith, and Bonezzi 2015) shows that consumers value other-centered behaviors (in our case associated with E and S performances) more positively and self-centered behaviors (in our case associated with G performance) less

[2]Prior research has focused on related dimensions of corporate social responsibility (CSR) and its outcome, corporate social performance, which differs from ESG performances on several aspects. We summarize these differences in the Web Appendix A.

negatively in the presence of resource scarcity. Similarly, institutional investors are likely to value E and S performances more negatively and G performance less positively in the face of competition because expected financial returns are lower in the presence of resource scarcity.

Finally, as consumers and institutional investors play a crucial role in reducing firm risks (Luo et al. 2014; Tuli and Bharadwaj 2009), CBBE and IIO may mediate the relationship between E, S, and G performances and idiosyncratic risk. Accordingly, we aim to answer the following research questions:

1. How are E, S, and G performances differentially related to CBBE and IIO?
2. Does competitive intensity moderate these relationships?
3. Do CBBE and IIO mediate the E, S, and G performances–idiosyncratic risk relationships?

To answer these questions, we estimate a system of equations on a data set of 10,248 firm-quarter observations from 416 unique firms spanning Q4 2012 to Q3 2020, assembled using six databases. Our empirical analysis shows that E, S, and G performances relate differently to CBBE and IIO, in line with our theorization that consumers focus on firm motives while investors focus on financial returns. E performance is positively (negatively) associated with CBBE (IIO), while G performance is negatively associated with CBBE (IIO). We also find a negative association between S performance and IIO.

Our study offers several insights. First, our novel finding that E, S, and G have contrasting associations with different stakeholders contributes to the literature on stakeholder management and ESG, as previous research has predominantly focused on the aggregate-level impact of ESG on a single stakeholder (Luo and Bhattacharya 2006; Nofsinger, Sulaeman, and Varma 2019; Sen and Bhattacharya 2001). In turn, we focus on the disaggregate-level roles of E, S, and G performances for different firm stakeholders, responding to the growing demand within stakeholder management literature for including a variety of stakeholders in empirical research (Fairchild et al. 2023; Lange, Bundy, and Park 2022; Wang, Jia, and Zhang 2021). Our findings imply that firms must navigate trade-offs between satisfying consumers and meeting the expectations of institutional investors in product and capital markets.

Second, consistent with our theorization on how resource scarcity in competitive markets shapes consumer and institutional investor perceptions differently, we find that competitive intensity moderates the relationships between E, S, and G performances and CBBE and IIO. Competitive intensity strengthens the negative association of E performance and IIO and the positive association of S performance and CBBE and weakens the negative (positive) association of G performance with CBBE (IIO). These findings contribute to the literature on ESG and the role of market structure, which generally shows that firms tend to increase ESG performance in response to increased competition (e.g., Cicchiello, Cotugno, and Foroni 2023; Flammer 2015). For managers, this implies that ESG may help consumers differentiate the firm's brands from the competition in more competitive markets, leading to enhanced CBBE. However, this comes at the cost of reducing IIO in such markets.

Third, we contribute to the literature that examines the link between ESG and risk. Previous research has emphasized the role of ESG performance in risk management but reported mixed results (see Web Appendix B). Heeding recent calls for more emphasis on the potential mechanisms that underlie the relationships in marketing–finance literature (Edeling, Srinivasan, and Hanssens 2021; Malshe, Colicev, and Mittal 2020), we show a mediating path from E, S, and G performances to idiosyncratic risk through consumers and institutional investors. We find that E performance reduces (increases) idiosyncratic risk while G performance increases (reduces) idiosyncratic risk through CBBE (IIO). S performance increases idiosyncratic risk through IIO. By identifying different paths through which E, S, and G performances are related to idiosyncratic risk, we advance the literature on relationships between these performances and firm risk (Bouslah, Kryzanowski, and M'Zali 2013; Izcan and Bektas 2022). In practice, executives should consider the trade-offs of E, S, and G performances given multiple stakeholders.

Conceptual Framework

Figure 1 shows our conceptual framework. We first discuss the role of E, S, and G performance for a firm's two primary stakeholders – consumers and institutional investors. We then propose that competitive intensity moderates these relationships. We conclude by testing the mediating role of consumers and institutional investors in the links between E, S, and G performances and idiosyncratic risk.[3]

Key Constructs: E, S, and G Performances

Following prior research (e.g., Li and Wu 2020), we define E, S, and G performances as the assessments of a firm's positive and negative actions related to individual environmental, social, and governance factors, respectively. These three factors come directly from the corporate reporting standard set forth by the Sustainability Accounting Standards Board (SASB 2023).[4] Cumulatively, ESG comprises 26 individual components. Environmental (E) performance is assessed by evaluating a firm's approach to managing its environmental impacts through six components. Social (S) performance is captured by a firm's social or societal impacts through

[3] It is possible that E, S and G performances are also directly associated with idiosyncratic risk (we thank the review team for this suggestion). We depict this potential direct link between E, S, and G performance and idiosyncratic risk in the conceptual framework. We treat the direct links as an empirical question and do not formulate separate hypotheses.
[4] Thousands of firms globally use this standard; it has also been adopted by the International Sustainability Standards Board (https://sasb.org/company-use/).

ten components. Finally, governance (G) performance involves a firm's corporate governance structure and practices, along with its management of various risks and opportunities associated with its governance, assessed through ten components. Table 1 summarizes the definitions of the E, S, and G performances and their characteristics.

We emphasize that the scope of governance extends beyond shareholders. For instance, Standard & Poor measures[5] governance performance based on the following eight criteria: corporate governance, codes of business conduct, risk and crisis management, supply chain management, tax strategy, materiality, policy influence, and impact measurement. Out of these, only corporate governance deals with shareholder rights. As evident from Table 1, the criteria for governance as defined by SASB are similar to the ones defined by Standard & Poor.

Figure 1. Conceptual framework.

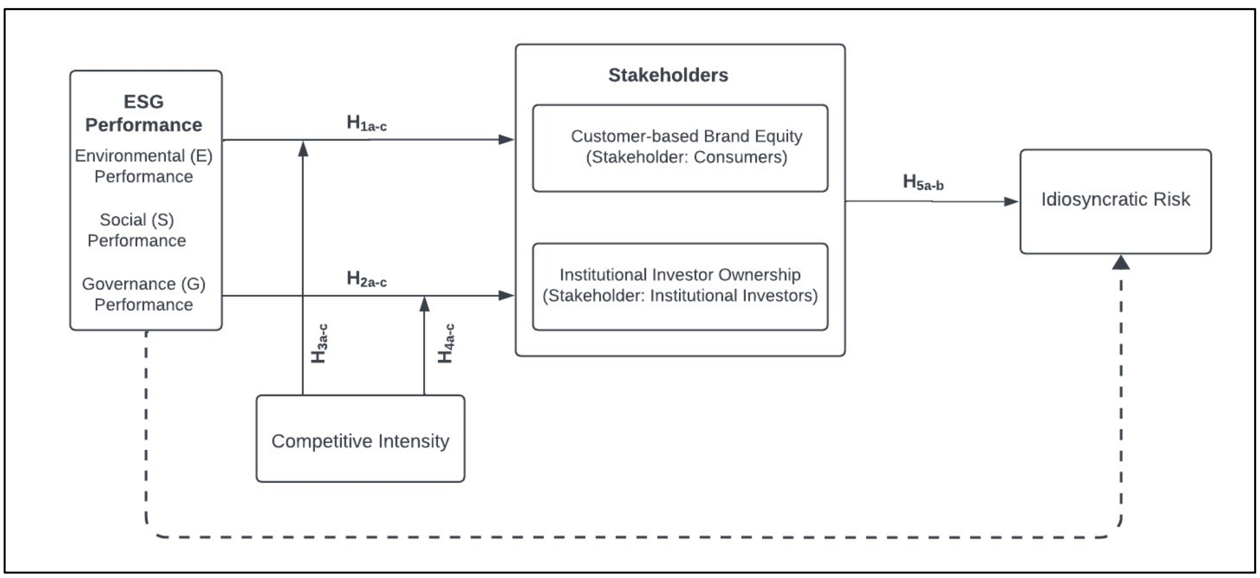


Table 1. Summary of E, S, and G Performances.

	E performance	S performance	G performance

[5] https://www.spglobal.com/en/research-insights/articles/exploring-the-g-in-esg-governance-in-greater-detail-part-i

Definition	Assesses a firm's approach to managing impacts on the natural environment, including air, land, and water.	Assesses a firm's social or societal impacts.	Assesses a firm's practices to uphold ethical standards in its management, as well as its handling of the diverse risks and opportunities associated with its business operations.
Items from SASB	1. Air quality 2. Ecosystems and biodiversity 3. Energy consumption, 4. Greenhouse gas emissions 5. Water usage and wastewater discharge 6. Solid waste management	1. Product and service access and affordability 2. Customer privacy 3. Customer welfare 4. Product quality and safety 5. Selling practice and product labeling 6. Employee engagement, diversity, and inclusion 7. Employee health and safety 8. Data security 9. Human rights and community relations 10. Labor practices	1. Business model resilience 2. Material sourcing and efficiency 3. Physical impacts of climate change 4. Product design and life-cycle management 5. Supply chain management 6. Critical incident risk management 7. Competitive behavior 8. Business ethics 9. Management of legal and regulatory environment 10. Systematic risk management
Beneficiaries	Society, communities, consumers, employees, and future generations	Society, communities, consumers, and employees	Primarily investors

Stakeholder Management Theory as a Theoretical Lens

Our conceptual framework is grounded in stakeholder management theory, which postulates that firms must also cater to multiple stakeholder interests beyond merely maximizing shareholder wealth (Donaldson and Preston 1995; Freeman 1984). Stakeholders are "individuals or groups who are affected by, or whose actions can directly affect, a firm's operation" (Freeman 1984, p. 25). Focusing on stakeholders allows firms to gain a competitive advantage, which eventually results in superior firm performance outcomes (Donaldson and Preston 1995; Freeman 1984).

Within stakeholder management theory, we pursue an *instrumental stakeholder approach*, which is apt for explaining how a particular firm's behavior results in performance outcomes (Clarkson 1995; Donaldson and Preston 1995). The instrumental stakeholder approach is performance-oriented as it focuses on managing key stakeholders who control the firm's resources (Bhattacharya and Sen 2003; Sen and Bhattacharya 2001). This approach aligns with our study's objective to link E, S, and G performances to consumers and institutional investors and, ultimately, firm risk.

Primary Firm Stakeholders: Consumers and Institutional Investors

We focus on consumers and institutional investors for two reasons. First, consumers and institutional investors are firms' primary stakeholders (Freeman 1984; Homburg, Stierl, and Bornemann 2013). Primary stakeholders are those with the highest power, legitimacy, and urgency (Mitchell, Agle, and Wood 1997). Consumers are not only the most salient stakeholder in the marketing literature (Martin 2009; Rubera and Kirca 2017) but also an important stakeholder in the business strategy field (Freeman and McVea 2005; Lamin and Zaheer 2012). Indeed, consumers are legitimate stakeholders because they ultimately determine the demand for a firm's products and may hold the firm accountable for its actions (Bhattacharya and Sen 2003; Sen and Bhattacharya 2001). Consumers are also important stakeholders because the firm urgently needs them to buy its products and services (Mitchell, Agle, and Wood 1997). Overall, research argues that consumers are at the heart of firms' strategic decisions and should be a key focus of firms' stakeholder orientation (Martin 2009).

Institutional investors[6] have significant power because of their ownership in the firm and have legitimacy from their direct access to firms' top executives (Cillo, Griffith, and Rubera 2018; Freeman 1984). Brockman, Subasi, and Uzmanoglu (2017) note that companies attend multiple investor conferences a year and that chief executive officers (chief financial officers) spend, on average, 17 (26) days per year on such investor relations. Institutional investors are

[6]In recent years, individual investor participation in the stock market has reached 20% by volume of stock traded (Hajric and Graffeo 2021). Many individual investors make their investment decisions based on familiarity with the companies and their brands (Huberman 2001). Therefore, consumers and investors of well-known brands may have a significant overlap. To identify consumers and investors as distinct stakeholders, we specifically focus on institutional investors, such as mutual funds, pension funds, and hedge funds.

also urgent stakeholders as they hold a large percentage of a firm's stock (Cillo, Griffith, and Rubera 2018), thereby making their claims critical and necessitating immediate attention from firms.

Second, consumers and institutional investors are likely to have asymmetric reactions to each E, S, and G performance and thus present an intriguing contrast. Previous research argues that stakeholder interests and priorities often diverge significantly (Donaldson and Preston 1995), even on the same issue (Wolfe and Putler 2002). As such, management studies have called for investigating the heterogeneous reaction of stakeholder groups to firms' stances on political and social issues (Fairchild et al. 2023; Lange, Bundy, and Park 2022; Wang, Jia, and Zhang 2021). Recent industry reports also show that consumers and investors have different preferences for firms' E, S, and G performances (Statista 2023; YouGov 2023), and news articles highlight the difference in how consumers and institutional investors react to firms' governance performance (e.g., Wills 2023).

We posit that these differences arise because consumers and institutional investors are likely to focus on different aspects when they evaluate firms' E, S, and G performances (Aguilera et al. 2007; Aksoy et al. 2022). Consumers evaluate firm performance on the basis of the perceived motives underlying firm actions (Ellen, Webb, and Mohr 2006). While managers describe a firm's motives as dual (i.e., serving both economic and social goals), they believe consumers view them as *either* self-serving or reflecting sincere social concerns (Drumwright 1996). Along these lines, we argue that consumers form perceptions of the *underlying motives* of a firm's E, S, and G performances. Indeed, CSR research has organized motives, from "self-serving" or "firm-serving" to "society-serving" or "public-serving" (Lichtenstein, Drumwright, and Braig 2004). Conversely, institutional investors evaluate firms on the basis of their expectations about a firm's future cash flows. Thus, they scrutinize firms' actions by whether firms focus on core business operations that can lead to better financial results. In other words, institutional investors evaluate whether and to what extent each E, S, and G performance will affect firms' costs, revenues, and cash flows (Edeling, Srinivasan, and Hanssens 2021). We expect institutional investors to reward firms that focus on themselves (i.e., core operations) through G performance and punish firms that focus on others (E and S performances).

E, S, and G Performances and CBBE

Our focal construct for consumers is CBBE, which refers to "the differential effect of brand knowledge on consumer response to the brand's marketing" (Keller 1993, p. 2). We argue that E, S, and G performances will have differential associations with CBBE depending on how consumers perceive the firm's *underlying motives* behind each performance. Previous research broadly classifies such motives into two groups: self-centered and other-centered (Ellen, Webb, and Mohr 2006). We argue that if a firm engages in actions that typically and primarily benefit itself, consumers are likely to perceive the motives behind these actions as self-centered. By contrast, if a firm engages in actions that typically and primarily benefit others (e.g., individuals and communities external to the firm), consumers are likely to perceive the motives behind such actions as other-centered. This motive distinction is important because prior research shows that consumers respond positively to other-centered motives and negatively to self-centered motives (Chernev and Blair 2015; Ellen, Mohr, and Webb 2006).

We hypothesize that E and S performances are positively related to CBBE because consumers are more likely to perceive motives behind a firm's actions associated with these factors as other-centered (vs. self-centered). E performance pertains to how a firm's efforts reduce the environmental impacts of its business operations (S&P Global 2019). Firms can achieve this by mitigating climate change concerns, improving energy consumption efficiency, promoting ecological justice, and using renewable resources. In turn, S performance captures firms' initiatives and practices aimed at improving relationships with customers, employees, and the communities where they conduct their businesses (S&P Global 2020). Higher S performance reflects effective engagement in social practices that focus on customer welfare and privacy, help improve working conditions, enhance diversity and inclusion, and reduce product liabilities. While such E and S performances can also benefit the firm, consumers may reasonably believe that the firm's motivation behind the actions driving these performances is primarily to benefit others, such as the community and society overall. For example, consumers exhibit a higher willingness to pay for products from firms associated with initiatives such as environment-friendly circular take-back programs (Tari and Trudel 2023), which have broader societal benefits. Therefore, consumers are likely to perceive higher E and S performances as more altruistic, given their main goals and foci, resulting in a positive association with CBBE. Thus:

H_{1a}: E performance has a positive association with CBBE.

H_{1b}: S performance has a positive association with CBBE.

By contrast, we hypothesize that G performance is negatively related to CBBE because consumers are more likely to perceive motives behind the firm's actions associated with this factor as self-centered (vs. other-centered). G performance pertains to aspects such as firms' internal accountability, management of legal and regulatory framework, material sourcing and efficiency, supply chain management, risk management, and business model resilience. Firms need to act to stay compliant with accounting standards and changing regulations and to secure their product sourcing from reliable supply chain participants. Therefore, improving G performance is primarily related to improving the firm's internal operations and financial wellbeing and thus is likely to be perceived as more self-centered by consumers. Furthermore, many governance-related components, such as supply chain management and competitive behavior, are driven primarily by regulatory pressures (Banker 2023). Ellen, Webb, and Mohr (2006) show that consumers have a lower willingness to purchase from brands that engage in causes forced by stakeholders, such as regulators. Although these authors focus on the impact of self-centered actions on purchase intent, we expect the same logic to hold for G performance and CBBE. For example, consumers might associate a firm's product sourcing strategies with self-centered actions undertaken to satisfy activist groups and regulators, leading to a negative impact on CBBE. Thus:

H_{1c}: G performance has a negative association with CBBE.

E, S, and G Performances and IIO

Our focal construct for studying the role of E, S, and G performances for institutional investors is their ownership of a firm's stock. Given such ownership, institutional investors closely monitor the firm's business operations and disclosures and scrutinize firm actions in relation to the impact on financials such as costs, revenues, and cash flows (Boone and White 2015). Accordingly, we expect institutional investors to avoid investing in firms whose activities subtract resources from the firm's main business operations and reduce the firm's future cash flows (Bushee 2001). Therefore, we argue that the relationship between E and S performances and IIO is negative, while the relationship between G performance and IIO is positive.

Achieving superior E and S performances is more likely to benefit communities and society rather than shareholders. This provides a signal to institutional investors that firms have subtracted resources from the core business operation (e.g., production, research, and development [R&D]), which could reduce the firm's bottom line in the future. Improving E and

S performances not only requires significant financial outlays (Nofsinger, Sulaeman, and Varma 2019) but also might not be profitable for the firm[7] (Morgenstern, Pizer, and Shih 2001). For example, a meta-analysis shows that superior E and S performances do not generate long-term financial performance (Margolis, Elfenbein, and Walsh 2009). Larcker and Watts (2020) find that the "green" premium for municipal bonds is zero, and Atz et al. (2023) report that, in general, the financial performance of ESG investing is indistinguishable from conventional investing. Therefore, as professional money managers, most institutional investors are unlikely to embrace environmental and social objectives at the cost of financial performance. Overall, we expect positive E and S performances to lead to lower IIO. Thus,

H_{2a}: E performance has a negative association with IIO.

H_{2b}: S performance has a negative association with IIO.

In contrast with E and S performances, G performance signals to investors that the firm is focusing on its main business operations. The components of governance include business model resiliency, material sourcing and efficiency, critical incident risk management, systematic risk management, and legal and regulatory environment management, which are likely to be designed to directly protect and benefit investors by reinforcing the business operations. Thus, organizational and procedural changes centered on core business operations are essential for improving governance performance. Consistent with our arguments, Chung and Zhang (2011) show that IIO increases with *corporate governance* quality. They identify financial and operating metrics disclosure as a core component of corporate governance. As more financial and

[7]These results are counter to the conventional wisdom that holds that social performance leads to financial performance. Garcia-Castro, Ariño, and Canela (2011) argue that conventional wisdom might be incorrect because a significant body of CSR research suffers from uncorrected endogeneity. They show that after addressing endogeneity, previously significant coefficients of Kinder, Lydenberg, and Domini (KLD) scores in various operating performance regressions become nonsignificant. Relatedly, Awaysheh et al. (2020) find no impact of higher CSR performance on operating profits.

operational metrics disclosure leads to more accurate firm valuation, investors prefer to invest in companies with better disclosure practices. Although our governance measure extends beyond Chung and Zhang's governance metrics, the underlying motivation in both operationalizations of governance is improving business model resiliency. Similarly, Ferreira and Matos (2008) find that institutional investors prefer to invest in firms with good corporate governance. Overall, we expect a positive relationship between G performance and IIO. Thus:

H_{2c}: G performance has a positive association with IIO.

In summary, we expect E, S, and G performances to have different associations with CBBE and IIO. We expect the associations between E and S performances and CBBE to be positive, because consumers likely perceive the underlying motives to be other-centered. However, we expect the associations between E and S performances and IIO to be negative, given their potential impact on core operations and the financial bottom line. In contrast, we expect the association between G performance and CBBE to be negative because consumers likely perceive the motives underlying it as self-centered. Conversely, we expect the association between G performance and IIO to be positive, as institutional investors are likely to believe that G performance directly benefits the firm's core operations and protects investors.

Moderating Role of Competitive Intensity

Competitive intensity and resource scarcity

The nature of the competitive environment plays an important role in instrumental stakeholder theory as it can have consequences for how different stakeholders perceive firm actions (Clarkson 1995; Freeman and McVea 2005; Lange, Bundy, and Park 2022). We expect competitive intensity to moderate our main effects because it creates resource scarcity for a firm (Lusch and Laczniak 1989). Firms in more competitive markets tend to have fewer resources and capabilities, which translates into narrower margins (Morgan, Kaleka, and Katsikeas 2004). Consequently, firms experiencing resource scarcity struggle to pursue different strategic goals simultaneously (Mizik and Jacobson 2003) and instead must carefully choose the activities on which to focus their efforts (Durand, Hawn, and Ioannou 2019). To compete effectively, such firms need to operate more efficiently, optimizing resource allocation and utilization. Doing so can involve cutting costs, streamlining processes, and focusing on core competences, potentially leading to perceived or actual resource constraints in other areas (Barney 1991; Teece 2007). For example, resource scarcity may force firms to focus on either advertising or R&D to differentiate themselves from the competition (Keller 2001). We next elaborate on how resource scarcity associated with greater competitive intensity moderates our main effects.

Moderating role of competitive intensity in the link between E, S, and G performances and CBBE

We propose that competitive intensity moderates the E, S, and G performances–CBBE relationship because resource scarcity influences how consumers perceive self- and other-centered motives. Roux, Goldsmith, and Bonezzi (2015) show that simply reminding people about resource scarcity can lead to self-centered behavior. Similarly, Li, Meng, and Cui (2023) find that under resource scarcity, consumers show less empathy (other-centeredness). Finally, in an experimental setting, Van Lange (2000) shows that priming consumers to become more competitive makes them put less weight on equality and others' interests. Taken together, this stream of research suggests that in the presence of intense competition and resource scarcity, more self-centered and less other-centered behavior is likely. We argue that consumers may rely on these expectations to view other-centered behavior as less expected in the presence of intense competition, thereby forming stronger associations. By contrast, the association with self-centered motives underlying G performance is weaker in more competitive markets because consumers consider such motives in accordance with what they expect. These arguments are also in line with studies showing that consumers have stronger (weaker) associations with other-centered (self-centered) firm activities under intense competition (Ellen, Webb, and Mohr 2006; Vlachos et al. 2009; Zasuwa 2016). Thus, we hypothesize the following:

> H_{3a}: The positive association between E performance and CBBE becomes stronger as the competitive intensity increases.
>
> H_{3b}: The positive association between S performance and CBBE becomes stronger as the competitive intensity increases.
>
> H_{3c}: The negative association between G performance and CBBE becomes weaker as the competitive intensity increases.

Moderating role of competitive intensity in the link between E, S, and G performances and IIO

In the presence of resource scarcity, which is typical in competitive markets, institutional investors may interpret any firm activity not focused on the firm's core operations as bearing relatively high opportunity costs. When firms have abundant resources and higher profit margins, spending on E and S performances has relatively low opportunity costs and will have less impact on their survival rate (Roe 2021). By contrast, resource limitations of firms in competitive markets should make institutional investors more critical of firms' E and S activities. Implementing such activities typically requires significant up-front investments (IBM 2022), which are hard to afford in more competitive markets. In addition, higher E and S performances might be a strong signal to institutional investors that firms are shifting their priorities away from core operations in more competitive markets. This is in line with prior studies finding that firms do not prioritize ESG when the tensions between ESG and other activities (e.g., advertising, R&D) increase because these activities are considered more critical for firms' revenues in more competitive markets (Handelman and Arnold 1999; Luo and Bhattacharya 2009). Thus, institutional investors may view greater E and S performances as stronger indicators of future financial performance in the presence of higher levels of competitive intensity.

Finally, research has shown that G performance has a positive impact on firm value when competitive intensity is low because governance keeps a check on executives who might engage in wasteful activities due to resource slack (Giroud and Mueller 2010, 2011). In more competitive markets, executives do not have resource slack and instead face resource constraints, which is likely to reduce the importance of superior G performance. Thus, institutional investors will find G performance less (more) crucial in the markets with high (low) competitive intensity.

> H_{4a}: The negative association between E performance and IIO becomes stronger as the competitive intensity increases.
>
> H_{4b}: The negative association between S performance and IIO becomes stronger as the competitive intensity increases.
>
> H_{4c}: The positive association between G performance and IIO becomes weaker as the competitive intensity increases.

Mediating Roles of CBBE and IIO in the Link Between ESG and Idiosyncratic Risk

Firm risk is a fundamental metric for evaluating firm performance in capital markets (Edeling, Srinivasan, and Hanssens 2021), and is affected by marketing actions and strategies (e.g., Luo and Bhattacharya 2009; Tuli and Bharadwaj 2009). ESG has attracted increasing interest from firms because these factors are critical for risk management (Gorley 2022). We focus on idiosyncratic risk, reflecting the firm-specific risk unrelated to common risk factors (Moon, Tuli, and Mukherjee 2023) and accounting for the largest share of a firm's total risk (Goyal and Santa-Clara 2003). Idiosyncratic risk also holds significant importance for chief marketing officers' decisions and actions (Han, Mittal, and Zhang 2017).

Research shows that consumers' attitudes and IIO significantly affect firm risk (e.g., Luo et al. 2014; Rego, Billett, and Morgan 2009; Tuli and Bharadwaj 2009). We argue that firms with a higher level of CBBE should have lower idiosyncratic risk because a higher level of CBBE facilitates consumers' repeat purchase behaviors through rapid product and service identification and decreased search costs (Keller 2003). In addition, a higher level of CBBE leads to stronger brand loyalty and lower customer churn (Chaudhuri and Holbrook 2001). Similarly, we argue that firms with higher IIO will have lower idiosyncratic risk. Institutional shareholders have strong incentives to monitor firms' operations (An and Zhang 2013), and their monitoring is important for mitigating any potential agency problems between managers and shareholders (Shleifer and Vishny 1986). With larger stockholdings in firms, institutional investors have greater input in firm operations and decision-making to ensure that management is acting in the best interests of shareholders. Consistent with this argument, Bhojraj and Sengupta (2003) show that institutional investors play an active role in reducing management opportunism. In addition, institutions are more likely to act as a stable force on the market for a firm's stocks (Bushee and Noe 2000). Large institutional investor holding indicates more stability and less vulnerability in a firm's cash flows, lowering the idiosyncratic risk (Luo et al. 2014).

Overall, we argue that E, S, and G performances are related to CBBE and IIO, which, in turn, are related to idiosyncratic risk. This implies that CBBE and IIO mediate the association between E, S, and G performances and idiosyncratic risk. Thus, we propose the following partial mediation hypotheses:

> H_{5a}: CBBE mediates the association between E, S, and G performances and idiosyncratic risk.
>
> H_{5b}: IIO mediates the association between E, S, and G performances and idiosyncratic risk.

Methods

Data

To test our conceptual framework, we collected data from six different sources. We acquired firm-level E, S, and G performances from Factset Truvalue Labs (TVL), a provider of corporate ESG data and analytics. We obtained CBBE from YouGov BrandIndex and firms' advertising spending from Kantar Ad$pender. Finally, we collected stock market data from the Center for Research in Security Prices (CRSP), financial variables from Compustat, and IIO from Thomson/Refinitiv. Table 2 presents the variables, data sources, and previous research using these variables.

The data from CRSP, TVL, and YouGov BrandIndex are available at a daily frequency, Kantar Ad$pender is available at a monthly frequency, and Compustat and Thomson/Refinitiv data are available at a quarterly frequency. Therefore, we aggregate all the variables at the quarterly level before merging. We remove firms with missing values on idiosyncratic risk, IIO, and all control variables shown in Table 2. The final merged data set consists of 10,248 firm-quarter observations from 416 unique firms from Q4 2012 to Q3 2020.[8]

Measures

Independent variables: E, S, and G performances

We obtain E, S, and G performances from TVL, which previous research in the strategic management field has also used (e.g., McGlinch and Henisz 2020; Serafeim and Yoon 2023). TVL collects information on firms' ESG news, events, and practices from more than 100,000

Table 2. Measures and Data Sources.

Variable	Purpose	Definition	Data Source	Examples of Supporting Literature
Idiosyncratic risk	Main dependent variable	The risk associated with firm-specific strategies that cannot	CRSP	Luo and Bhattacharya (2009)

[8] To merge YouGov BrandIndex with Compustat, we manually identified corporate owners of brands by following a consistent procedure that combines the search of the brand name on Google and Wikipedia, reading brand history on websites, and checking other relevant sources (e.g., company reports). For each brand, we found the brand owner and possible change of ownership throughout our sample period. On manual inspection, the 1,887 brands from YouGov belong to 454 publicly traded corporate owners.

		be explained by changes in average market portfolio returns		
Customer-based Brand Equity (CBBE)	Main dependent variable	Customer-based brand equity	YouGov	Colicev et al. (2018)
Institutional Investor ownership (IIO)	Main dependent variable	Percentage of institutional investor ownership	Thomson/Refinitiv	Bayer, Tuli, and Skiera (2017)
Environmental performance	Main independent variable	Sum of six categories of E performance from Web Appendix C	Truvalue Labs	Serafeim and Yoon (2023), McGlinch and Henisz (2020)
Social performance	Main independent variable	Sum of ten categories of S performance from Web Appendix C	Truvalue Labs	Serafeim and Yoon (2023), McGlinch and Henisz (2020)
Governance performance	Main independent variable	Sum of ten categories of G performance from Web Appendix C	Truvalue Labs	Serafeim and Yoon (2023), McGlinch and Henisz (2020)
Competitive intensity	Moderating variable	One minus the Herfindahl–Hirschman index (HHI)	Compustat	Malshe and Agarwal (2015)
ESG volume	Control variable	The total number of unique ESG articles	Truvalue Labs	
Firm size	Control variable	Natural logarithm of total assets	Compustat	Rego, Billett, and Morgan (2009)
Advertising intensity	Control variable	Advertising spending divided by total sales	Kantar	Moon, Tuli, and Mukherjee (2023)
R&D intensity	Control variable	R&D spending divided by total sales	Compustat	Luo and Bhattacharya (2009)
Return on assets (ROA)	Control variable	The ratio of net income to total assets	Compustat	Kurt and Hulland (2013)
Sales growth	Control variable	The difference between current period sales and prior period sales divided by prior period sales	Compustat	Kurt and Hulland (2013), Kothari (2001)
Demand instability	Control variable	Standard error of the slope coefficient of time in the regression of industry sales on time for the prior five quarters	Compustat	Han, Mittal, and Zhang (2017)
Market share	Control variable	Market share of the firm	Compustat	Anderson, Fornell, and Mazvancheryl (2004)
Financial leverage	Control variable	Firm's total debt divided by the market value of the firm	Compustat	Malshe and Agarwal (2015)

publicly available online sources, including news articles, analyst reports, trade journals and industry publications, watchdog groups, and social media.[9] For example, E, S, and G information is increasingly highlighted in investor briefings, consumer reports (Snyder and Macwan 2023),

[9]TVL follows an "outside-in" perspective on obtaining ESG performance for each firm and does not rely on a firm's disclosure of such information (Hughes, Urban, and Wójcik 2021). This is different from other ESG databases such as MSCI-KLD, which follows an "inside-out" perspective and heavily relies on analysts and corporate self-disclosed sources. In Table C1 of Web Appendix C, we summarize the comparison of TVL and traditional ESG databases.

and institutional investors' agendas (CFA Institute 2017).[10] TVL then uses artificial intelligence and natural language processing to categorize information into one or more of the 26 ESG categories defined by the SASB. Web Appendix C provides the definitions of the 26 categories. As described in the theoretical framework, we classify the 26 categories into E, S, and G performances by following SASB guidelines.

Specifically, we summarize six categories related to the environment as E performance, ten categories related to social capital and human capital as S performance, and ten categories related to business model, innovation, leadership, and governance as G performance. For our measure of E, S, and G performances, we use the TVL's aggregated score, called the "Pulse Score." The Pulse Score is based on short-term sentiment analysis, enabling the measurement of near-term ESG performance changes of a firm. The scoring mechanism not only classifies the ESG-related events as positive versus negative in a binary manner but also assesses varying degrees of positivity or negativity (Serafeim and Yoon 2023). The score captures the overall valence of public perceptions of a firm's E, S, and G performances, ranging from 0 (most negative) to 100 (most positive). TVL focuses on firms' ESG behaviors from external sources and includes both positive and negative events that go beyond traditional sources of ESG risk data. Using machine learning, TVL aggregates, extracts, analyzes, and generates scores on millions of documents each month as events happen. For a robustness check, we also perform principal component analysis (PCA) on the six environmental categories, ten social categories,

[10] With the increased availability of ESG-related information (Serafeim and Yoon 2023), consumers and institutional investors are exposed to regular updates on firms' E, S, and G performances. Consumers learn about a firm's ESG performance through product labels (McKinsey 2023), news, and social media. Institutional investors have access to a firm's ESG disclosures through reports (Ho 2023), investor days, roadshows, conferences, and earning calls, in which ESG is often the headline topic.

and ten governance categories to measure E, S, and G performances, resulting in three single factors that capture 95% of the variance.

Dependent variable: CBBE

Our measure of CBBE comes from YouGov BrandIndex, which monitors multiple brands in different industries and has been commonly used in marketing (e.g., Colicev et al. 2018; Stäbler and Fischer 2020). YouGov daily surveys approximately 5,000 randomly selected consumers (from a panel of 5 million[11]) and weighs the sample respondents by age, gender, race, education, income, and region to ensure representativeness. Following YouGov's methodology and previous research (Stäbler and Fischer 2020), we create a metric for CBBE based on YouGov's definition and use the following eight YouGov metrics: buzz, impression, perceived quality, recommendation, reputation, satisfaction, perceived value, and purchase intent. We provide the survey process and definitions of these metrics in Web Appendix D. At the aggregated firm level, these metrics range from –100 to +100. We use the average of the eight metrics to measure CBBE. For a robustness check, we also perform PCA on the eight YouGov metrics, which results in a single factor that captures 95% of the variance.

Dependent variable: IIO

We measure IIO as the percentage of outstanding shares owned by institutional investors, which is the primary measure of institutional investor behavior in previous research (e.g., Bayer, Tuli, and Skiera 2017; Cillo, Griffith, and Rubera 2018). We set the missing values of IIO to 0.

Moderating variable: Competitive intensity

Following prior research (e.g., Malshe and Agarwal 2015), we use HHI to measure market concentration. For each firm in each quarter, we calculate HHI by summing up the squares of

[11] The random daily selection aims to reduce common method bias and response interdependency, because consumers who rate the brands on one day are independent of other consumers rating brands on a different day.

market share in two-digit Standard Industrial Classification (SIC) codes. We obtain the measure of competitive intensity as 1 – HHI. The average competitive intensity is .89, and a higher score indicates a more competitive market.

Dependent variable: Idiosyncratic risk

Idiosyncratic risk reflects an individual firm's stock return volatility (Moon, Tuli, and Mukherjee 2023). We estimate idiosyncratic risk for each firm each year-quarter using Carhart's (1997) four-factor model with daily return data from CRSP (Luo and Bhattacharya 2009):

$$R_{id} - R_{fd} = a_i + \beta_i^{MKT} r_d^{MKT} + \beta_i^{SMB} r_d^{SMB} + \beta_i^{HML} r_d^{HML} + \beta_i^{UMD} r_d^{UMD} + \varepsilon_{id},$$

where R_{id} is the daily return on stock of firm *i* on day *d*, R_{fd} is the risk-free return on day *d*, β_i^{MKT} is market risk, β_i^{SMB} is size risk, β_i^{HML} is value risk, and $\beta_i^{UMD}$is momentum risk. The residual of the model is a measure of the firm's idiosyncratic risk. We operationalize idiosyncratic risk as the variance of the residuals $[\frac{1}{n} \times (\sum_d^n \varepsilon_{id}{}^2)]$, where *n* denotes the number of days over which the model is estimated in a year-quarter for a given firm. We use past one quarter's daily stock returns to estimate Equation 1 for every firm-year-quarter.

Control variables

We control for firm size, measured as the natural log of total assets (Rego, Billett, and Morgan 2009). We also control for advertising intensity and R&D intensity because previous studies suggest that they are negatively related to firm idiosyncratic risk (Han, Mittal, and Zhang 2017; Luo and Bhattacharya 2009; Moon, Tuli, and Mukherjee 2023). Next, we control for accounting performance metrics such as ROA and sales growth as they may affect stock returns (Kothari 2001; Kurt and Hulland 2013). In addition, we control for market share, as firms with higher market share have higher firm value (Anderson, Fornell, and Mazvancheryl 2004). We also control for financial leverage as studies show that firm leverage is associated with idiosyncratic risk and firm value (e.g., Ferreira and Laux 2007; Malshe and Agarwal 2015). Furthermore, we control for demand instability, which can affect the relationship between a firm's strategic emphasis and idiosyncratic risk (Han, Mittal, and Zhang 2017). Finally, we control for ESG volume, which quantifies the total count of unique firm-specific ESG articles over a 12-month trailing period.

Table 3 shows the descriptive statistics and correlations for all variables. E, S, and G performance factors and idiosyncratic risk are negatively correlated. CBBE and IIO are also negatively correlated with idiosyncratic risk. In addition, the correlation between CBBE and IIO is nonsignificant, which reduces the concern about the potential impact of CBBE on IIO.

Empirical Model and Estimation Strategy

To examine the associations of E, S, and G performances and idiosyncratic risk through CBBE and IIO, we include three main equations in the empirical model: idiosyncratic risk, CBBE, and IIO. To test the mediating roles of CBBE and IIO, we need a gap of one-quarter between the dependent and independent variables for analysis. Thus, for every firm in quarter t, we set idiosyncratic risk at the same quarter t, CBBE and IIO at quarter $t - 1$, and firms' E, S, and G performances and other control variables at quarter $t - 2$.

Malshe, Colicev, and Mittal (2020) suggest that YouGov might select firms by quarterly firm revenues. Therefore, we specify a selection equation to account for the potential selection bias. In addition, firms' E, S, and G performances are potentially endogenous because firms are likely to strategically participate in ESG activities that improve firm performance. Therefore, we use a control function approach to address the endogeneity concerns.

Main Equations

First, we model firm idiosyncratic risk as a function of CBBE, IIO, competitive intensity, firm's E, S, and G performances, their interactions with competitive intensity, and several control variables:

$$(1)\ IR_{it} = \theta_0 + \theta_1 CBBE_{it-1} + \theta_2 IIO_{it-1} + \theta_3 Comp_{it-2} + \theta_4 Env_{it-2} + \theta_5 Soc_{it-2} + \theta_6 Gov_{it-2} + \theta_7 Env_{it-2} \times Comp_{it-2} + \theta_8 Soc_{it-2} \times Comp_{it-2} + \theta_9 Gov_{it-2} \times Comp_{it-2} + \theta_{10} CF\_Env_{it-2} + \theta_{11} CF\_Soc_{it-2} + \theta_{12} CF\_Gov_{it-2} + \tilde{\theta}\, CTRL2_{it-2} + \theta \sum Time\ Dummy + \varepsilon 1_{it};$$

where for each firm *i* in quarter *t*, $CBBE_{it-1}$ is CBBE, $IIO_{it-1}$is IIO, $Comp_{it-2}$ is competitive intensity, and $CTRL2_{it-2}$ represents all the control variables we show in Table 2. In addition, Env_{it-2} is the firm's E performance, Soc_{it-2} is the firm's S performance, and Gov_{it-2} is the firm's G performance. The terms CF_Env_{it-2} , CF_Soc_{it-2} , and CF_Gov_{it-2} are control function corrections to account for endogeneity, which we describe in the following section, and $Time\ Dummy$ is a set of year-quarter dummy variables.

Second, we model CBBE as a function of competitive intensity, firm's E, S, and G performances, their interactions with competitive intensity, and control variables:

$$(2)\ CBBE_{it-1} = \alpha_0 + \alpha_1 Env_{it-2} + \alpha_2 Soc_{it-2} + \alpha_3 Gov_{it-2} + \alpha_4 Comp_{it-2} + \alpha_5 Env_{it-2} \times Comp_{it-2} + \alpha_6 Sov_{it-2} \times Comp_{it-2} + \alpha_7 Gov_{it-2} \times Comp_{it-2} + \alpha_8 CF\_Env_{it-2} + \alpha_9 CF\_Soc_{it-2} + \alpha_{10} CF\_Gov_{it-2} + \tilde{\alpha}\, CTRL2_{it-2} + \alpha \sum Time\ Dummy + \varepsilon 2_{it-1};$$

Table 3. Descriptive Statistics and Correlations.

	M	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. E performance	43.25	15.98	1.00							
2. S performance	43.83	10.87	0.58***	1.00						
3. G performance	36.63	11.41	0.67***	0.59***	1.00					
4. Idiosyncratic risk	0.02	0.01	-0.21***	-0.24***	-0.27***	1.00				
5. CBBE	9.99	7.97	0.23***	0.23***	0.16***	-0.07***	1.00			
6. IIO	0.68	0.32	-0.07***	-0.00	-0.03**	-0.02*	0.01	1.00		
7. Competitive intensity	0.89	0.10	-0.01	0.05***	0.02*	-0.08***	-0.15***	-0.11***	1.00	
8. Firm size	9.26	2.19	0.48***	0.50***	0.58***	-0.39***	0.01	-0.13***	0.07***	1.00
9. Advertising intensity	0.01	0.03	-0.04***	0.04***	-0.08***	-0.02	0.11***	0.07***	0.09***	-0.18***
10. R&D intensity	0.02	0.09	0.10***	0.10***	0.08***	0.01	-0.01	-0.10***	0.15***	0.05***
11. ROA	0.03	0.03	0.06***	0.04***	0.04***	-0.18***	0.16***	0.14***	-0.05***	-0.15***
12. Sales growth	0.04	0.92	0.00	-0.00	0.01	-0.01	-0.01	0.00	0.01	-0.01
13. Demand instability	0.02	0.02	0.03**	0.02*	0.07***	-0.08***	-0.06***	-0.08***	-0.20***	0.09***
14. Market share	0.06	0.10	0.30***	0.20***	0.25***	-0.11***	0.25***	-0.05***	-0.41***	0.33***
15. Financial leverage	1.38	10.37	0.04***	0.02*	0.04***	0.05***	-0.03**	-0.17***	0.03**	0.13***
16. ESG volume	828.02	2845.50	0.16***	0.13***	0.18***	-0.09***	0.08***	-0.18***	0.02†	0.31***
	M	SD	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
9. Advertising intensity	0.01	0.03	1.00							
10. R&D intensity	0.02	0.09	-0.02†	1.00						
11. ROA	0.03	0.03	0.10***	-0.27***	1.00					
12. Sales growth	0.04	0.92	-0.01	-0.00	0.07***	1.00				
13. Demand instability	0.02	0.02	-0.02*	-0.04***	-0.09***	-0.01	1.00			
14. Market share	0.06	0.10	-0.11***	-0.04***	0.05***	-0.00	0.05***	1.00		
15. Financial leverage	1.38	10.37	-0.02*	-0.01	-0.07***	-0.00	-0.00	0.02*	1.00	
16. ESG volume	828.02	2845.50	-0.05***	0.14***	-0.01	-0.01	0.04***	0.23***	0.06***	1.00

†p < .10, *p < .05, **p < .01, ***p < .001.

Third, we model IIO as a function of competitive intensity, firm's E, S, and G performances, their interactions with competitive intensity, and control variables:

$$(3)\ IIO_{it-1} = \beta_0 + \beta_1 Env_{it-2} + \beta_2 Soc_{it-2} + \beta_3 Gov_{it-2} + \beta_4 Comp_{it-2}$$

$$+ \beta_5 Env_{it-2} \times Comp_{it-2} + \beta_6 Soc_{it-2} \times Comp_{it-2} + \beta_7 Gov_{it-2} \times Comp_{it-2}$$

$$+ \beta_8 CF\_Env_{it-2} + \beta_9 CF\_Soc_{it-2} + \beta_{10} CF\_Gov_{it-2} + \tilde{\beta} CTRL2_{it-2}$$

$$+ \beta \sum Time\ Dummy + \varepsilon 3_{it-1};$$

Addressing Endogeneity

Selection bias

We specify the selection equation following Malshe, Colicev, and Mittal (2020). Specifically, we create a dummy variable "Selection" that equals 1 for the firms covered by YouGov and 0 for the firms not covered by YouGov:

$$(4a)\ Selection_{it-1} = \begin{cases} 0;\ Firm_{it-1} \notin YouGov \\ 1;\ Firm_{it-1} \in YouGov \end{cases}.$$

Next, we model "Selection" as a function of the same control variables in the idiosyncratic risk, CBBE, and IIO equations except for the log of total assets. We add the natural log of sales as the excluded variable from the three equations because YouGov is more likely to include firms with higher sales to gain visibility (Malshe, Colicev, and Mittal 2020). Accordingly, the selection equation is as follows:

$$(4b)\ Selection_{it-1} = \pi_0 + \pi_1 \ln(Sales_{it-2}) + \tilde{\pi}\, CTRL1_{it-2} + \varepsilon 4_{it-1},$$

where, for each firm *i* in quarter *t*, $Sales_{it-2}$ is the quarterly sales.

Omitted variable bias

We use firm-fixed effects to control for time-invariant firm-specific unobservable factors and year-quarter fixed effects to control for time-specific unobservable factors common to the cross-section of firms. However, E, S, and G performances can still be endogenous as the firms may strategically engage in ESG activities. For example, executives may possess proprietary information, unobservable to us, that helps them decide when and how much to emphasize ESG activities to lower the risk. We tackle the endogeneity concern about E, S, and G performances due to omitted variables using the control function approach (Petrin and Train 2010). We include three new variables that correspond to the three endogenous variables (i.e., E, S, and G performances) in Equations 2, 3, and 4, and we label each of the new variables as a control function correction. We argue that the potentially endogenous variables should be uncorrelated with the error terms conditional on the control function corrections.

We regress potentially endogenous E, S, and G performances on the control variables and instruments to estimate control function corrections. Instruments should be correlated with endogenous independent variables (i.e., meet the relevancy criterion) and should not have a direct impact on the dependent variable conditional on the endogenous variables (i.e., meet the exclusion restriction). Bramoullé, Djebbari, and Fortin (2009) suggest that "peers-of-peers" measures are relevant and valid instruments. For a focal firm, peers-of-peers firms are the peers of the focal firm's peers, not members of the focal firm's own peer group (Shi, Grewal, and Sridhar 2021). We define a focal firm's peers (i.e., first-degree peers) as all the firms operating in the same two-digit SIC code as the focal firm. We define the focal firm's peers-of-peers (i.e., second-degree peers) as all the firms that are not operating in the same two-digit SIC code as the focal firm but are operating in the same two-digit SIC code as the focal firm's peers. Peers-of-peers firms measures meet the relevancy criterion because the focal firm and its peers-of-peers firms are linked through common peer firms. They also meet the exclusion restriction because peers-of-peers firms affect the focal firm only indirectly through their effect on the common peer firms. We estimate the following equations using peers-of-peers firms measures for E, S, and G performances:

(5) $Env_{it} = \gamma_0 + \tilde{\gamma}\, CTRL2_{it} + \gamma_1 PP\_Env_{it} + \gamma_2 PP\_Soc_{it} + \gamma_3 PP\_Gov_{it} + CF\_Env_{it}$,

(6) $Soc_{it} = \eta_0 + \tilde{\eta}\, CTRL2_{it} + \eta_1 PP\_Env_{it} + \eta_2 PP\_Soc_{it} + \eta_3 PP\_Gov_{it} + CF\_Soc_{it}$, and

(7) $Gov_{it} = \varphi_0 + \tilde{\varphi}\, CTRL2_{it} + \varphi_1 PP\_Env_{it} + \varphi_2 PP\_Soc_{it} + \varphi_3 PP\_Gov_{it} + CF\_Gov_{it}$,

where, for a focal firm *i* in quarter *t*, PP_Env_{it} is the average E performance, PP_Soc_{it} is the average S performance, and PP_Gov_{it} is the average G performance of peers-of-peers firms of the focal firm. We provide the details of the first-stage results in Table E1 in Web Appendix E. Together, PP_Env_{it}, PP_Soc_{it}, and PP_Gov_{it} are strong instruments (first-stage F statistics are 162.26, 52.43, and 46.22, respectively; $p < .000$). We use the estimated error terms CF_Env_{it}, CF_Soc_{it}, and CF_Gov_{it} as control function corrections.

Model Estimation

The empirical model contains four equations with three continuous dependent variables (idiosyncratic risk, CBBE, and IIO) and one binary dependent variable (selection). We use a simultaneous estimator to estimate the four equations as a system, which achieves greater efficiency (Breen 1996). We model the idiosyncratic risk, CBBE, and IIO equations conditionally on the selection equation to correct for the selection bias.

We remove firm-fixed effects by using mean-centered variables at the firm level in estimation. Specifically, in our panel data set with firms over year-quarters, we calculated the average value of each variable for each firm and subtracted this firm-specific time-series mean from each observation of the variable.

We use a conditional mixed process (CMP) estimator in Stata (Roodman 2011) to accommodate jointly estimating a mix of binary and continuous dependent variables. CMP is a modeling framework based on maximum likelihood estimators. It allows for a flexible error structure with cross-correlations among equations and the use of different dependent variables with unique distribution properties and enables conditioning on the selection. Previous marketing research has also used CMP for similar purposes (e.g., Antia, Mani, and Wathne 2017; Mallapragada, Chandukala, and Liu 2016).

Results

We present the results from our main model in Table 4. In Column 1, the natural log of sales is positive and statistically significant (.181, $p < .01$), which indicates that firms with higher sales have a higher probability of YouGov coverage.

Test of hypotheses

In Column 2, Table 4, E performance is positively associated with CBBE (.060, $p < .05$), and G performance is negatively associated with CBBE (–.195, $p < .001$). Thus, we find support for H_{1a} and H_{1c}. We find no evidence supporting H_{1b}, as the coefficient of S performance on CBBE is nonsignificant (.001, $p > .1$).

In Column 3, Table 4, we show that E performance (–.004, $p < .01$) and S performance (–.002, $p < .10$) are negatively associated with IIO, though the coefficient of S performance is marginally significant. G performance is positively associated with IIO (.011, $p < .001$). Thus, we find support for H_{2a}–H_{2c}.

H_{3a} and H_{3b} propose that the positive associations of E and S performances with CBBE are stronger in competitive markets than in concentrated markets. Column 2, Table 4, shows no support for H_{3a}, as the interaction effect of E performance and competitive intensity on CBBE is nonsignificant (–.145, $p > .1$). However, we find support for H_{3b}, as the interaction effect of S performance and competitive intensity on CBBE is positive and significant (.865, $p < .01$). H_{3c} posits that the negative association of G performance with CBBE is weaker in competitive markets than in concentrated markets. The results show that the interaction effect of G performance and competitive intensity on CBBE is positive and significant (1.629, $p < .001$), in support of H_{3c}.

H_{4a} and H_{4b} propose that the negative link between E performance and S performance, and IIO, respectively, is stronger in competitive markets than in concentrated markets. In Column 3, Table 4, we show support for H_{4a}. The interaction term of E performance and competitive intensity is negative and significant (–.066, $p < .001$). However, we find no support for H_{4b}, as the interaction effect of S performance and competitive intensity is not significant (–.011, $p > .1$). Finally, the interaction term of G performance and competitive intensity is negative and significant (–.040, $p < .05$), confirming H_{4c} that the positive link between G performance and IIO is weaker in competitive markets than in concentrated markets.

In Column 4, Table 4, we report the results of Equation 2. We show that CBBE has a negative and significant association with idiosyncratic risk (–.011, $p < .001$). Similarly, IIO has a large negative and marginally significant association with idiosyncratic risk (–.159, $p < .10$). These results have implications for the mediation analysis, which we discuss in the next paragraph. We find a negative and marginally significant (–.012, $p < .10$) association of E performance and nonsignificant associations of S (–.012, $p > .10$) and G performances (.024, $p > .10$) with idiosyncratic risk.

Mediating roles of CBBE and IIO

Table 5 summarizes the results of the mediation analysis with bootstrapping, and Figure 2 depicts the mediating role of CBBE and IIO in the ESG–idiosyncratic risk link. H_{5a} and H_{5b} hypothesize that CBBE and IIO mediate the link between E, S, and G performances and idiosyncratic risk. To formally assess the mediating role of CBBE, we test the statistical significance of the products of the E, S, and G performances coefficients in Equation 3 (Column 2, Table 4) with the coefficient of CBBE in Equation 2 (Column 4, Table 4). Similarly, to formally evaluate the mediating role of IIO, we test the statistical significance of the products of the E, S, and G performances coefficients in Equation 4 (Column 3, Table 4) with the coefficient of IIO in Equation 2 (Column 4, Table 4). Following Preacher and Hayes (2004), we draw 1,000 bootstrap samples with replacement to obtain 95% confidence intervals (CIs) for the indirect effects. The 95% CIs for E performance (–.00065, 95% bootstrap CI [–.00139, –.00017]) and G performance (.00211, 95% bootstrap CI [.00107, .00402]) on idiosyncratic risk through CBBE do not include zero. The 95% CIs for E performance (.00057, 95% bootstrap CI [.00005, .00180]), S performance (.00027, 95% bootstrap CI [.00001, .00100]), and G performance (–.00176, 95% bootstrap CI [–.00475, –.00018]) on idiosyncratic risk through IIO do not include zero. Thus, H_{5a} and H_{5b} are supported.

Table 4. Mediating Role of CBBE and IIO in ESG–Idiosyncratic Risk Link.

	1		2		3		4	
	Selection		CBBE		IIO		Idiosyncratic Risk	
E performance			.060*	(.024)	-.004**	(.001)	-.012†	(.007)
S performance			.001	(.019)	-.002†	(.001)	-.012	(.007)
G performance			-.195***	(.045)	.011***	(.002)	.024	(.016)
Customer-based Brand Equity							-.011***	(.002)
Institutional investor ownership							-.159†	(.082)
E performance × competitive intensity			-.145	(.292)	-.066***	(.017)	-.174*	(.083)
S performance × competitive intensity			.856**	(.280)	-.011	(.014)	-.065	(.065)
G performance × competitive intensity			1.629***	(.473)	-.040*	(.020)	-.059	(.097)
R&D intensity	.000***	(.000)	-.269	(.334)	.014	(.021)	-.540***	(.119)
ROA	-.016**	(.006)	-2.296†	(1.390)	.537***	(.093)	-5.959***	(.509)
Firm size			.965***	(.122)	.014†	(.008)	-.241***	(.062)
Market share	-2.733***	(.517)	2.491	(2.062)	-.323**	(.098)	.189	(.418)
Competitive intensity	1.607***	(.235)	3.421*	(1.406)	.027	(.077)	-.694†	(.386)
Financial leverage	-.000*	(.000)	-.032***	(.006)	-.001	(.001)	.019**	(.006)
Advertising intensity	.032***	(.007)	.006	(.006)	-.000	(.000)	-.002	(.001)
Sales growth	-.000†	(.000)	.016†	(.010)	.000	(.002)	.005	(.007)
Demand instability	-.202***	(.008)	.056	(.075)	.001	(.003)	.007	(.018)
Log (sales)	.181***	(.009)						
ESG volume			-.000**	(.000)	.000	(.000)	-.000*	(.000)
Control function for E performance			-.056*	(.024)	.004**	(.001)	.015*	(.007)
Control function for S performance			.001	(.018)	.002*	(.001)	.008	(.006)
Control function for G performance			.191***	(.045)	-.012***	(.002)	-.030†	(.016)
Constant	-1.466***	(.005)	-.244	(.777)	-.653***	(.024)	.029	(.118)
Control for firm-specific effects			Yes		Yes		Yes	
Control for time effects			Yes		Yes		Yes	

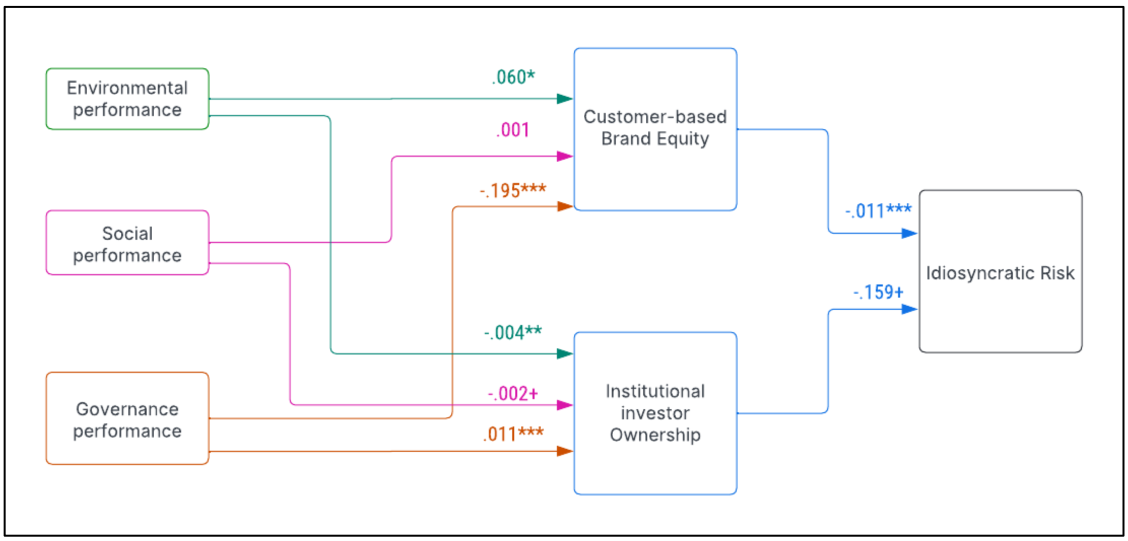
†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.
Notes: Standard errors are in parentheses. The coefficients and standard errors in the "Idiosyncratic Risk" column are multiplied by 100. Competitive intensity is 1 – HHI. Log (sales) is an instrument in the selection equation. Control functions are estimated using peers-of-peers E, S, and G performances as instruments.

Table 5. Indirect Effects of E, S, and G Performances on Idiosyncratic Risk.

	Indirect Effect Through	
	CBBE	IIO
E performance	–.00065[a] [–.00139, –.00017]	.00057[a] [.00005, .00180]
S performance	–.00001 [–.00044, 00038]	.00027[a] [.00001, .00100]
G performance	.00211[a] [.00107, .00402]	–.00176[a] [–.00475, –.00018]

[a]95% bootstrap CI does not include zero. The coefficients are multiplied by 100.

Figure 2. Mediating role of CBBE and IIO in the ESG–idiosyncratic risk link.



Additional Data Analyses and Robustness Checks

Employees and media as additional stakeholders

Our analysis includes consumers and institutional investors as two primary stakeholders. In the supplementary analysis, we also consider the roles of two other stakeholders in our model. Drawing on stakeholder management theory, we identified employees as an additional primary stakeholder and media as a secondary stakeholder as two important stakeholders that could be affected by E, S, and G performances (Welch and Yoon 2022). After including employee reputation and media sentiment metrics, our main results continue to hold. In addition, we find negative associations between E and S performances and media sentiment, and a positive association between G performance and media sentiment; we also find a marginally significant and positive relationship between S performance and employee reputation. (see Table E2 in Web Appendix E).

Alternative firm-level risk measures

Firms adopt ESG as a risk management practice. In addition to idiosyncratic risk, which is firm-specific and an important performance dimension associated with chief marketing officers' decisions and actions (Han, Mittal, and Zhang 2017; Rogers 2019), we examine the associations of E, S, and G performances and other firm-level risk measures, such as total risk, earnings dispersion, and bankruptcy risk. These measures reflect a firm's vulnerability-related risk from debt holders' perspective and variability-related risk from equity holders' perspective (Rego, Billett, and Morgan 2009) and alleviate concerns that depending solely on Carhart's (1997) four-factor model for idiosyncratic risk assessment might be overly restrictive (Tuli and Bharadwaj 2009). Our major findings continue to hold with different risk measures (see Tables E3–E5 in Web Appendix E).

ESG and CBBE based on PCA

To assess the robustness of the ESG and CBBE measures, we carry out PCA on the six environmental categories, ten social categories, ten governance categories, and eight YouGov metrics, which results in three single factors for E, S, and G and a single factor for CBBE. These factors capture 95% of the variance. We find that all the results except one continue to hold after using this alternative measure of ESG and CBBE (see Table E6 in Web Appendix E). Only the association of S performance and IIO is no longer significant at conventional levels.

Peer measures as instruments

We used peers-of-peers firms' ESG measures as instruments. Previous studies have more commonly used peer firms–based metrics as instruments (e.g., Germann, Ebbes, and Grewal 2015). All the firms that operate in a focal firm's primary and secondary industries are its peer firms. We use peer firms' average E, S, and G performances as instruments and find that all the results except one continue to hold. Only the association of S performance and IIO is no longer significant at conventional levels (see Table E7 in Web Appendix E).

Alternative way to handle missing values in advertisement and R&D

We replaced any missing advertising and R&D with the value 0 in our main analysis. As a robustness check, we used the ratio of advertising to selling, general, and administrative (SG&A) expenses and the ratio of R&D to SG&A to compute an estimate for missing advertising and R&D, as these two factors are components of SG&A (Malshe and Agarwal 2015; Shi, Grewal, and Sridhar 2021). Specifically, for each firm reporting advertising, we computed the ratio of advertising to SG&A each year-quarter. Next, we obtained the quarterly average ratio of advertising to SG&A for each industry. To estimate missing advertising for a firm-quarter, we multiplied the firm's SG&A by the average advertising to SG&A ratio advertising/SG&A of the corresponding industry and year-quarter. We followed the same procedure to estimate missing R&D expenses. Our findings continue to hold (see Table E8 in Web Appendix E).

Alternative estimation method

As an alternative to the CMP maximum likelihood estimator, we estimate the model using structural equation modeling, which allows us to test mediation and moderation in a single step. We use the two-step Heckman procedure to tackle the selection bias – we include the inverse Mills ratio from the selection equation to the system of equations. The results continue to hold (see Table E9 in Web Appendix E).

Industry's environmental sensitivity as a moderator

E, S, and G performances may have stronger associations with CBBE, IIO, and idiosyncratic risk in the industries deemed by regulators as environmentally sensitive. We use environmental sensitivity as an additional moderating variable in our models but do not find any significant results. Our main results continue to hold (see Table E10 in Web Appendix E).

Discussion

This research sought to answer three research questions: 1) How are E, S, and G performances differentially related to CBBE and IIO?, 2) Does competitive intensity moderate these relationships?, and 3) Do CBBE and IIO mediate the E, S, and G performances–idiosyncratic risk relationships? We answer them by showing that E, S, and G performances are differentially associated with CBBE and IIO and that these associations are moderated by competitive intensity. In turn, we also show that CBBE and IIO mediate the link between E, S, and G performances and firm idiosyncratic risk. Overall, our findings highlight the importance of (1) analyzing the granularity in E, S, and G performances given their asymmetric associations and (2) examining multiple firm stakeholders (e.g., consumers, institutional investors) separately given their diverging preferences.

Theoretical Contributions

Our research makes several contributions to the literature on stakeholder management, ESG, and firm risk. First, we show that separate dimensions of ESG performance have asymmetric associations with different stakeholders – consumers and institutional investors. Previous studies have repeatedly called for incorporating multiple stakeholders in empirical research (Fairchild et al. 2023; Lange, Bundy, and Park 2022; Wang, Jia, and Zhang 2021) given stakeholders' divergent priorities, interests, and expectations (Donaldson and Preston 1995), even on the same issue (Wolfe and Putler 2002). Indeed, we find opposing associations between E, S, and G performances and consumers and institutional investors, which contributes to current research on ESG and stakeholder relationships (e.g., Aksoy et al. 2022; Durand, Hawn, and Ioannou 2019; Lamin and Zaheer 2012; Nofsinger, Sulaeman, and Varma 2019).

Second, competitive intensity plays an important role in the relationships between ESG and CBBE and IIO and, finally, idiosyncratic risk. This finding aligns with recent studies showing that consumers' responses to ESG news are stronger in more competitive local markets (e.g., Duan, Li, and Michaely 2023). Conversely, institutional investors may interpret the returns on ESG as low when firms have small margins and scarce resources. Although consumer behavior research shows that *consumers* may be susceptible to self-centered behavior under resource scarcity, prior research has not extended these findings to *consumers' perceptions* of firms' self- and other-centered performance under resource scarcity. Thus, we contribute to the research on competitive markets by showing that consumers may view firm behavior differently under different levels of competition.

Third, although practitioners have emphasized the role of ESG performance in risk management (Gorley 2022), previous studies yield mixed results on the separate roles of E, S, and G performance in firm idiosyncratic risk (see Web Appendix B). Whereas Bouslah, Kryzanowski, and M'Zali (2013) and Korinth and Lueg (2022) indicate that only S performance negatively affects idiosyncratic risk, Izcan and Bektas (2022) find a nonsignificant impact of S performance on idiosyncratic risk but significant negative impacts of E and G performances. Moreover, Sassen, Hinze, and Hardeck (2016) and Benlemlih et al. (2018) show that both E and

S performances negatively affect idiosyncratic risk while G performance has no impact. Our contribution highlights the mediating role of consumers and institutional investors as primary stakeholders in the relationship between E, S, and G performances and idiosyncratic risk. This aligns with recent calls for more emphasis on the potential mechanisms (vs. only direct effects) that underlie the relationships in marketing–finance interface literature (Edeling, Srinivasan, and Hanssens 2021; Malshe, Colicev, and Mittal 2020).

Managerial Implications

Our research has two implications for managers. First, we highlight an important challenge for managers of publicly listed firms face (Pérez et al. 2022): Which E, S, and G performances should they consider to optimally manage consumers and institutional investors? We show that the answer is not straightforward. Consumers and institutional investors care about different aspects of ESG, and as such, managers need to account for inevitable trade-offs between serving consumers and institutional investors to meet their goals in product and capital markets. If managers want to focus on consumers, they should prioritize E performance. Given the negative association between CBBE and firm risk, investing in E performance can reduce risk; at the same time, however, it might reduce the ownership of institutional investors, which can increase idiosyncratic risk. In addition, S performance is not significantly associated with CBBE but negatively and significantly associated with IIO, possibly because of its high costs and uncertain benefits. Indeed, while firms experience IIO decreases on average with higher S performance, managers may well decide it is the right thing to do for their employees and communities. For example, Disney boasts more than 11,000 employees enrolled in its education program Aspire, covering 100% of school tuition, books, and fees, with onsite "study hall" spaces and private career coaching (Hope 2022). Altruistic private and institutional shareholders can accept higher risk for the satisfaction of investing in firms that treat employees better. Heated debates about such trade-offs regularly make headlines, such as accusations that Unilever's management is "obsessed with publicly displaying sustainability credentials at the expense of focusing on the fundamentals of the business" (Naidu and Kerber 2022).

The findings for governance provide an interesting pattern—governance is associated negatively with CBBE and positively with IIO. G performance is the most overlooked of the ESG factors, according to industry reports and policy debates (Strine et al. 2022). Paradoxically, our findings show that among the three ESG performances, G performance seems to matter the most for consumers, institutional investors, and idiosyncratic risk. Thus, if firms want to please institutional investors and reduce idiosyncratic risk, even to the detriment of consumers, they should focus on governance. This suggestion is consistent with reports claiming that governance can help achieve better overall ESG performance (Peshawaria 2022).

Second, considering our findings related to the moderating effect of competitive intensity, managers should apply different strategies to engage and communicate ESG practices depending on the competitive intensity of the market. For example, in more competitive markets, S performance has a stronger association with CBBE. Therefore, managers may want to allocate higher budgets to social activities to better satisfy consumers. On the investor side, the positive association of G performance with IIO is stronger in more competitive markets. Thus, managers may want to promote governance practices more actively to meet institutional investors' expectations. Furthermore, managers should make a stronger case for ESG in competitive markets by undertaking more thorough outreach to institutional investors through investor conference presentations.

A crucial takeaway of our study is that managers need to be aware of inevitable trade-offs when it comes to ESG. They need to evaluate which stakeholders they want to cater to, decide on which ESG performance to leverage, and account for competitive intensity of the market in which they operate. We recommend that managers focus on E, S and G performances that better align with their firms' policies and ethics.

Future Research Avenues

Our study opens several avenues for future research. First, although consumer and institutional investors are the most likely stakeholders to care about ESG, stakeholder management theory hints that several other stakeholders can also play a role. While we included employees and media as additional stakeholders in robustness checks, future studies might consider other stakeholders, such as suppliers, which need to coordinate their efforts with firms to comply with regulations for ESG reporting, and government agencies that are responsible for enforcing ESG policies. In addition, another potential mediating mechanism could stem from how E, S, and G performance could lead to operational risk, strengthen financial performance, or offer better partnerships to supply chain partners. Second, while the goal of this study was to show how firm-specific E, S, and G performances are associated with firm-specific idiosyncratic risk, future studies could relate them to systematic risk. Third, we considered the role of one additional moderator – environmentally sensitive industries – but future research should also explore other possible moderators that affect a firm's resources and thereby affect those motives and expectations.

References

Aguilera, Ruth V., Deborah E. Rupp, Cynthia A. Williams, and Jyoti Ganapathi (2007), "Putting the S Back in Corporate Social Responsibility: A Multilevel Theory of Social Change in Organizations," *Academy of Management Review*, 32 (3), 836–63.

Aksoy, Lerzan, Sandhya Banda, Colleen Harmeling, Timothy L. Keiningham, and Anita Pansari (2022), "Marketing's Role in Multi-Stakeholder Engagement," *International Journal of Research in Marketing*, 39 (2), 445–61.

An, Heng and Ting Zhang (2013), "Stock Price Synchronicity, Crash Risk, and Institutional Investors," *Journal of Corporate Finance*, 21, 1–15.

Anderson, Eugene W., Claes Fornell, and Sanal K. Mazvancheryl (2004), "Customer Satisfaction and Shareholder Value," *Journal of Marketing*, 68 (4), 172–85.

Antia, Kersi D., Sudha Mani, and Kenneth H. Wathne (2017), "Franchisor–Franchisee Bankruptcy and the Efficacy of Franchisee Governance," *Journal of Marketing Research*, 54 (6), 952–67.

Atz, Ulrich, Tracy Van Holt, Zongyuan Zoe Liu, and Christopher C. Bruno (2023), "Does Sustainability Generate Better Financial Performance? Review, Meta-Analysis, and Propositions," *Journal of Sustainable Finance & Investment*, 13 (1), 802–25.

Awaysheh, Amrou, Randall A. Heron, Tod Perry, and Jared I. Wilson (2020), "On the Relation Between Corporate Social Responsibility and Financial Performance," *Strategic Management Journal*, 41 (6), 965–87.

Banker, Steve (2023), "Trade Rules Are Increasingly ESG Rules," *Forbes* (August 16), https://www.forbes.com/sites/stevebanker/2023/08/16/trade-rules-are-increasingly-esg-rules/.

Barney, Jay (1991), "Firm Resources and Sustained Competitive Advantage," *Journal of Management*, 17 (1), 99–120.

Bayer, Emanuel, Kapil R. Tuli, and Bernd Skiera (2017), "Do Disclosures of Customer Metrics Lower Investors' and Analysts' Uncertainty but Hurt Firm Performance?" *Journal of Marketing Research*, 54 (2), 239–59.

Benlemlih, Mohammed, Amama Shaukat, Yan Qiu, and Grzegorz Trojanowski (2018), "Environmental and Social Disclosures and Firm Risk," *Journal of Business Ethics*, 152 (3), 613–26.

Bhattacharya, C.B. and Sankar Sen (2003), "Consumer–Company Identification: A Framework for Understanding Consumers' Relationships with Companies," *Journal of Marketing*, 67 (2), 76–88.

Bhojraj, Sanjeev and Partha Sengupta (2003), "Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors," *Journal of Business*, 76 (3), 455–75.

Boone, Audra L. and Joshua T. White (2015), "The Effect of Institutional Ownership on Firm Transparency and Information Production," *Journal of Financial Economics*, 117 (3), 508–33.

Bouslah, Kais, Lawrence Kryzanowski, and Bouchra M'Zali (2013), "The Impact of the Dimensions of Social Performance on Firm Risk," *Journal of Banking & Finance*, 37 (4), 1258–73.

Bramoullé, Yann, Habiba Djebbari, and Bernard Fortin (2009), "Identification of Peer Effects Through Social Networks," *Journal of Econometrics*, 150 (1), 41–55.

Breen, Richard (1996), *Regression Models: Censored, Sample Selected, Or Truncated Data*. SAGE.

Brockman, Paul, Musa Subasi, and Cihan Uzmanoglu (2017), "Investor Conferences, Firm Visibility, and Stock Liquidity," *Financial Review*, 52 (4), 661–99.

Bushee, Brian J. (2001), "Do Institutional Investors Prefer Near-Term Earnings over Long-Run Value?" *Contemporary Accounting Research*, 18 (2), 207–46.

Bushee, Brian J. and Christopher F. Noe (2000), "Corporate Disclosure Practices, Institutional Investors, and Stock Return Volatility," *Journal of Accounting Research*, 38, 171–202.

Carhart, Mark M. (1997), "On Persistence in Mutual Fund Performance," *Journal of Finance*, 52 (1), 57–82.

CFA Institute (2017), "Environmental, Social, and Governance (ESG) Survey," (accessed March 6, 2023), https://www.cfainstitute.org/-/media/documents/survey/esg-survey-report-2017.ashx.

Chaudhuri, Arjun and Morris B. Holbrook (2001), "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty," *Journal of Marketing*, 65 (2), 81–93.

Chernev, Alexander and Sean Blair (2015), "Doing Well by Doing Good: The Benevolent Halo of Corporate Social Responsibility," *Journal of Consumer Research*, 41 (6), 1412–25.

Chung, Kee H. and Hao Zhang (2011), "Corporate Governance and Institutional Ownership," *Journal of Financial and Quantitative Analysis*, 46 (1), 247–73.

Cicchiello, Antonella Francesca, Matteo Cotugno, and Cristian Foroni (2023), "Does Competition Affect ESG Controversies? Evidence from the Banking Industry," *Finance Research Letters*, 55, 103972.

Cillo, Paola, David A. Griffith, and Gaia Rubera (2018), "The New Product Portfolio Innovativeness–Stock Returns Relationship: The Role of Large Individual Investors' Culture," *Journal of Marketing*, 82 (6), 49–70.

Clarkson, Max B.E. (1995), "A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance," *Academy of Management Review*, 20 (1), 92–117.

Colicev, Anatoli, Ashwin Malshe, Koen Pauwels, and Peter O'Connor (2018), "Improving Consumer Mindset Metrics and Shareholder Value through Social Media: The Different Roles of Owned and Earned Media," *Journal of Marketing*, 82 (1), 37–56.

Donaldson, Thomas and Lee E. Preston (1995), "The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications," *Academy of Management Review*, 20 (1), 65–91.

Drumwright, Minette E. (1996), "Company Advertising with a Social Dimension: The Role of Noneconomic Criteria," *Journal of Marketing*, 60 (4), 71–87.

Duan, Tinghua, Frank Weikai Li, and Roni Michaely (2023), "Consumers' Reaction to Corporate ESG Performance: Evidence from Store Visits," working paper, IESEG School of Management.

Durand, Rodolphe, Olga Hawn, and Ioannis Ioannou (2019), "Willing and Able: A General Model of Organizational Responses to Normative Pressures," *Academy of Management Review*, 44 (2), 299–320.

Edeling, Alexander, Shuba Srinivasan, and Dominique M. Hanssens (2021), "The Marketing–Finance Interface: A New Integrative Review of Metrics, Methods, and Findings and an Agenda for Future Research," *International Journal of Research in Marketing*, 38 (4), 857–76.

Ellen, Pam Scholder, Deborah J. Webb, and Lois A. Mohr (2006), "Building Corporate Associations: Consumer Attributions for Corporate Socially Responsible Programs," *Journal of the Academy of Marketing Science*, 34 (2), 147–57.

Fairchild, Angie, Olga Hawn, Ruth V. Aguilera, Anatoli Colicev, and Yakov Bart (2023), "Gender Inequality, Social Movement, and Company Actions: How Do Wall Street and Main Street React?" working paper, University of North Carolina at Chapel Hill.

Ferreira, Miguel A. and Paul A. Laux (2007), "Corporate Governance, Idiosyncratic Risk, and Information Flow," *Journal of Finance*, 62 (2), 951–89.

Ferreira, Miguel A. and Pedro Matos (2008), "The Colors of Investors' Money: The Role of Institutional Investors Around the World," *Journal of Financial Economics*, 88 (3), 499–533.

Flammer, Caroline (2015), "Does Product Market Competition Foster Corporate Social Responsibility? Evidence from Trade Liberalization," *Strategic Management Journal*, 36 (10), 1469–85.

Freeman, R. Edward (1984), *Strategic Management: A Stakeholder Approach*. Pitman.

Freeman, R. Edward and John McVea (2005), "A Stakeholder Approach to Strategic Management," in *The Blackwell Handbook of Strategic Management*, Michael A. Hitt, R. Edward Freeman, and Jeffrey S. Harrison, eds. John Wiley & Sons, 183–201.

Garcia-Castro, Roberto, Miguel A. Ariño, and Miguel A. Canela (2011), "Over the Long-Run? Short-Run Impact and Long-Run Consequences of Stakeholder Management," *Business & Society*, 50 (3), 428–55.

Germann, Frank, Peter Ebbes, and Rajdeep Grewal (2015), "The Chief Marketing Officer Matters!" *Journal of Marketing*, 79 (3), 1–22.

Giese, Guido (2017), "Has ESG Affected Stock Performance?" (accessed January 15, 2024), https://www.msci.com/www/blog-posts/has-esg-affected-stock/0794561659.

Giroud, Xavier and Holger M. Mueller (2010), "Does Corporate Governance Matter in Competitive Industries?" *Journal of Financial Economics*, 95 (3), 312–31.

Giroud, Xavier and Holger M. Mueller (2011), "Corporate Governance, Product Market Competition, and Equity Prices," *Journal of Finance*, 66 (2), 563–600.

Gorley, Adam (2022), "What Is ESG and Why It Is Important for Risk Management," (accessed February 22, 2023), https://www.sustainalytics.com/esg-research/resource/corporate-esg-blog/what-is-esg-why-important-risk-management.

Goyal, Amit and Pedro Santa-Clara (2003), "Idiosyncratic Risk Matters!" *Journal of Finance*, 58 (3), 975–1007.

Hajric, Vildana and Emily Graffeo (2021), "Retail Traders Slide Back Below 20% of Market's Total Volume," Bloomberg (November 17), https://www.bloomberg.com/news/articles/2021-11-17/retail-traders-retreat-as-choppy-markets-challenge-easy-profits.

Han, Kyuhong, Vikas Mittal, and Yan Zhang (2017), "Relative Strategic Emphasis and Firm-Idiosyncratic Risk: The Moderating Role of Relative Performance and Demand Instability," *Journal of Marketing*, 81 (4), 25–44.

Handelman, Jay M. and Stephen J. Arnold (1999), "The Role of Marketing Actions with a Social Dimension: Appeals to the Institutional Environment," *Journal of Marketing*, 63 (3), 33–48.

Ho, Soyoung (2023), "Nearly All Large Global Companies Disclose ESG Information," Thomson Reuters (March 1), https://tax.thomsonreuters.com/news/nearly-all-large-global-companies-disclose-esg-information/.

Homburg, Christian, Marcel Stierl, and Torsten Bornemann (2013), "Corporate Social Responsibility in Business-to-Business Markets: How Organizational Customers Account for Supplier Corporate Social Responsibility Engagement," *Journal of Marketing*, 77 (6), 54–72.

Hope, Blaise (2022), "Top 10: Global companies with best social impact initiatives," (accessed January 15, 2024), https://sustainabilitymag.com/top10/top-10-global-companies-with-best-social-impact-initiatives-esg.

Huberman, Gur (2001), "Familiarity breeds investment," *Review of Financial Studies*, 14 (3), 659–80.

Hughes, Arthur, Michael A. Urban, and Dariusz Wójcik (2021), "Alternative ESG Ratings: How Technological Innovation Is Reshaping Sustainable Investment," *Sustainability*, 13 (6), 3551.

IBM (2022), "What Is Sustainability in Business?" (accessed March 1, 2023), https://www.ibm.com/topics/business-sustainability.

Izcan, Doga and Eralp Bektas (2022), "The Relationship Between ESG Scores and Firm-Specific Risk of Eurozone Banks," *Sustainability*, 14 (14), 8619.

Keller, Kevin Lane (1993), "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity," *Journal of Marketing*, 57 (1), 1–22.

Keller, Kevin Lane (2001), "Building Customer-Based Brand Equity," *Marketing Management*, 10 (2), 14.

Keller, Kevin Lane (2003), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*. Prentice Hall.

Korinth, Fabio and Rainer Lueg (2022), "Corporate Sustainability and Risk Management—The U-Shaped Relationships of Disaggregated ESG Rating Scores and Risk in the German Capital Market," *Sustainability*, 14 (9), 5735.

Kothari, Sri Prakash (2001), "Capital Markets Research in Accounting," *Journal of Accounting and Economics*, 31 (1), 105–231.

Kurt, Didem and John Hulland (2013), "Aggressive Marketing Strategy following Equity Offerings and Firm Value: The Role of Relative Strategic Flexibility," *Journal of Marketing*, 77 (5), 57–74.

Lamin, Anna and Srilata Zaheer (2012), "Wall Street vs. Main Street: Firm Strategies for Defending Legitimacy and Their Impact on Different Stakeholders," *Organization Science*, 23 (1), 47–66.

Lange, Donald, Jonathan Bundy, and Eunyoung Park (2022), "The Social Nature of Stakeholder Utility," *Academy of Management Review*, 47 (1), 9–30.

Larcker, David F. and Edward M. Watts (2020), "Where's the Greenium?" *Journal of Accounting and Economics*, 69 (2/3), 101312.

Li, Jun and Di (Andrew) Wu (2020), "Do Corporate Social Responsibility Engagements Lead to Real Environmental, Social, and Governance Impact?" *Management Science*, 66 (6), 2564–88.

Li, Wanchen, Jing Meng, and Fang Cui (2023), "Scarcity Mindset Reduces Empathic Responses to Others' Pain: The Behavioral and Neural Evidence," *Social Cognitive and Affective Neuroscience*, 18 (1), nsad012.

Lichtenstein, Donald R., Minette E. Drumwright, and Bridgette M. Braig (2004), "The Effect of Corporate Social Responsibility on Customer Donations to Corporate-Supported Nonprofits," *Journal of Marketing*, 68 (4), 16–32.

Luo, Xueming and C.B. Bhattacharya (2006), "Corporate Social Responsibility, Customer Satisfaction, and Market Value," *Journal of Marketing*, 70 (4), 1–18.

Luo, Xueming and C.B. Bhattacharya (2009), "The Debate over Doing Good: Corporate Social Performance, Strategic Marketing Levers, and Firm-Idiosyncratic Risk," *Journal of Marketing*, 73 (6), 198–213.

Luo, Xueming, Ran Zhang, Weining Zhang, and Jaakko Aspara (2014), "Do Institutional Investors Pay Attention to Customer Satisfaction and Why?" *Journal of the Academy of Marketing Science*, 42 (2), 119–36.

Lusch, Robert F. and Gene R. Laczniak (1989), "Macroenvironmental Forces, Marketing Strategy and Business Performance: A Futures Research Approach," *Journal of the Academy of Marketing Science*, 17, 283–95.

Mallapragada, Girish, Sandeep R. Chandukala, and Qing Liu (2016), "Exploring the Effects of 'What' (Product) and 'Where' (Website) Characteristics on Online Shopping Behavior," *Journal of Marketing*, 80 (2), 21–38.

Malshe, Ashwin and Manoj K. Agarwal (2015), "From Finance to Marketing: The Impact of Financial Leverage on Customer Satisfaction," *Journal of Marketing*, 79 (5), 21–38.

Malshe, Ashwin, Anatoli Colicev, and Vikas Mittal (2020), "How Main Street Drives Wall Street: Customer (Dis)satisfaction, Short Sellers, and Abnormal Returns," *Journal of Marketing Research*, 57 (6), 1055–75.

Margolis, Joshua D., Hillary Anger Elfenbein, and James P. Walsh (2009), "Does it Pay to Be Good...And Does it Matter? A Meta-Analysis of the Relationship between Corporate Social and Financial Performance," working paper, Harvard University.

Martin, Roger (2009), "The Age of Customer Capitalism," *Harvard Business Review*, 88 (1), 58–65.

McGlinch, James and Witold Jerzy Henisz (2020), "Enhancing Profits & Reducing Losses by Managing Material Environmental, Social & Governance Factors," *Academy of Management Proceedings*, 2020 (1), 20390.

McKinsey (2023), "Do Consumers Care About Sustainability & ESG Claims?" (February 6), https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/consumers-care-about-sustainability-and-back-it-up-with-their-wallets.

Mitchell, Ronald K., Bradley R. Agle, and Donna J. Wood (1997), "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts," *Academy of Management Review*, 22 (4), 853–86.

Mizik, Natalie and Robert Jacobson (2003), "Trading Off Between Value Creation and Value Appropriation: The Financial Implications of Shifts in Strategic Emphasis," *Journal of Marketing*, 67 (1), 63–76.

Moon, Sungkyun, Kapil R. Tuli, and Anirban Mukherjee (2023), "Does Disclosure of Advertising Spending Help Investors and Analysts?" *Journal of Marketing*, 87 (3), 359–82.

Morgan, Neil A., Anna Kaleka, and Constantine S. Katsikeas (2004), "Antecedents of Export Venture Performance: A Theoretical Model and Empirical Assessment," *Journal of Marketing*, 68 (1), 90–108.

Morgenstern, Richard D., William A. Pizer, and Jhih-Shyang Shih (2001), “The Cost of Environmental Protection,” *Review of Economics and Statistics*, 83 (4), 732–38.

Naidu, Richa and Ross Kerber (2022), “Unilever Under Pressure to Show Sustainability Focus Is Good for Business,” Reuters (February 9), https://www.reuters.com/business/retail-consumer/unilever-under-pressure-show-sustainability-focus-is-good-business-2022-02-09/.

Nofsinger, John R., Johan Sulaeman, and Abhishek Varma (2019), “Institutional Investors and Corporate Social Responsibility,” *Journal of Corporate Finance*, 58, 700–725.

Pérez, Lucy, Vivian Hunt, Hamid Samandari, Robin Nuttall, and Krysta Biniek (2022), “Does ESG Really Matter—and Why?” *The McKinsey Quarterly* (August 10), https://www.mckinsey.com/capabilities/sustainability/our-insights/does-esg-really-matter-and-why.

Peshawaria, Rajeev (2022), “ESG: Will G Save Us From E and S Challenges?” *Forbes* (October 17), https://www.forbes.com/sites/rajeevpeshawaria/2022/10/17/esg-will-g-save-us-from-e-and-s-challenges/.

Petrin, Amil and Kenneth Train (2010), “A Control Function Approach to Endogeneity in Consumer Choice Models,” *Journal of Marketing Research*, 47 (1), 3–13.

Preacher, Kristopher J. and Andrew F. Hayes (2004), “SPSS and SAS Procedures for Estimating Indirect Effects in Simple Mediation Models,” Behavior Research Methods, Instruments, & Computers, 36 (4), 717–31.

PwC (2021), “2021 Consumer Intelligence Series survey on ESG,” (accessed March 6, 2023), https://www.pwc.com/us/en/services/consulting/library/consumer-intelligence-series/consumer-and-employee-esg-expectations.html.

Rego, Lopo L., Matthew T. Billett, and Neil A. Morgan (2009), “Consumer-Based Brand Equity and Firm Risk,” *Journal of Marketing*, 73 (6), 47–60.

Roe, Mark J. (2021), “Corporate Purpose and Corporate Competition,” *Wash. UL Rev.*, 99, 223.

Rogers, Charlotte (2019), “Why Managing Risk Is Now Essential to Marketing,” Marketing Week (May 14), https://www.marketingweek.com/the-rise-of-risk-management-in-marketing/.

Roodman, David (2011), “Fitting Fully Observed Recursive Mixed-process Models with cmp,” *The Stata Journal*, 11 (2), 159–206.

Roux, Caroline, Kelly Goldsmith, and Andrea Bonezzi (2015), “On the Psychology of Scarcity: When Reminders of Resource Scarcity Promote Selfish (and Generous) Behavior,” *Journal of Consumer Research*, 42 (4), 615–31.

Rubera, Gaia and Ahmet H. Kirca (2017), “You Gotta Serve Somebody: The Effects of Firm Innovation on Customer Satisfaction and Firm Value,” *Journal of the Academy of Marketing Science*, 45 (5), 741–61.

S&P Global (2019), “Understanding the ‘E’ in ESG,” (accessed February 21, 2023), https://www.spglobal.com/en/research-insights/articles/understanding-the-e-in-esg.

S&P Global (2020), “What Is the ‘S’ in ESG?” (accessed February 21, 2023), https://www.spglobal.com/en/research-insights/articles/what-is-the-s-in-esg.

SASB (2023), “Materiality Finder,” https://sasb.org/standards/materiality-finder/.

Sassen, Remmer, Anne-Kathrin Hinze, and Inga Hardeck (2016), “Impact of ESG Factors on Firm Risk in Europe,” *Journal of Business Economics*, 86 (8), 867–904.

Sen, Sankar and C.B. Bhattacharya (2001), "Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility," *Journal of Marketing Research*, 38 (2), 225–43.

Serafeim, George and Aaron Yoon (2023), "Stock Price Reactions to ESG News: The Role of ESG Ratings and Disagreement," *Review of Accounting Studies*, 28 (3), 1500–1530.

Shi, Huanhuan, Rajdeep Grewal, and Hari Sridhar (2021), "Organizational Herding in Advertising Spending Disclosures: Evidence and Mechanisms," *Journal of Marketing Research*, 58 (3), 515–38.

Shleifer, Andrei and Robert W. Vishny (1986), "Large Shareholders and Corporate Control," *Journal of Political Economy*, 94 (3), 461–88.

Snyder, Scott and Sanjay Macwan (2023), "The Missing Link Between ESG and Corporate Innovation," Knowledge at Wharton (March 13), https://knowledge.wharton.upenn.edu/article/the-missing-link-between-esg-and-corporate-innovation/.

Stäbler, Samuel and Marc Fischer (2020), "When Does Corporate Social Irresponsibility Become News? Evidence from More Than 1,000 Brand Transgressions Across Five Countries," *Journal of Marketing*, 84 (3), 46–67.

Statista (2023), "Leading ESG Characteristics for Investors," *Statista*, https://www.statista.com/statistics/1204036/top-esg-risks-and-opportunities-for-investors-worldwide/.

Strine, Leo E., Justin L. Brooke, Kyle M. Diamond, and Derrick L. Parker Jr. (2022), "It's Time to Focus on the 'G' in ESG," *Harvard Business Review* (November 18, https://hbr.org/2022/11/its-time-to-focus-on-the-g-in-esg.

Tari, Anna and Remi Trudel (2023), "Affording Disposal Control: The Effect of Circular Take-Back Programs on Psychological Ownership and Valuation," *Journal of Marketing*, OnlineFirst.

Teece, David J. (2007), "Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance," *Strategic Management Journal*, 28 (13), 1319–50.

Thomson Reuters (2021), "ESG Trends in Risk Management," https://legal.thomsonreuters.com/en/insights/articles/esg-trends-in-risk-management.

Tuli, Kapil R. and Sundar G. Bharadwaj (2009), "Customer Satisfaction and Stock Returns Risk," *Journal of Marketing*, 73 (6), 184–97.

Van Lange, Paul A.M. (2000), "Beyond Self-interest: A Set of Propositions Relevant to Interpersonal Orientations," *European Review of Social Psychology*, 11 (1), 297–331.

Vlachos, Pavlos A., Argiris Tsamakos, Adam P. Vrechopoulos, and Panagiotis K. Avramidis (2009), "Corporate Social Responsibility: Attributions, Loyalty, and the Mediating Role of Trust," *Journal of the Academy of Marketing Science*, 37 (2), 170–80.

Wang, Heli, Ming Jia, and Zhe Zhang (2021), "Good Deeds Done in Silence: Stakeholder Management and Quiet Giving by Chinese Firms," *Organization Science*, 32 (3), 649–74.

Washington, Paul and Andrew Jones (2023), "ESG Backlash Is Real and Growing. What to Know," Barron's (August 22), https://www.barrons.com/articles/esg-backlash-is-real-and-growing-what-to-know-264ec4f6.

Welch, Kyle and Aaron Yoon (2022), "Do High-Ability Managers Choose ESG Projects That Create Shareholder Value? Evidence from Employee Opinions," *Review of Accounting Studies*, 8 (4), 2448–75.

Wills, Ericka (2023), “Stop Stock Buybacks!” Dollars & Sense (May/June), https://dollarsandsense.org/archives/2023/0523wills.html.
Wolfe, Richard A. and Daniel S. Putler (2002), “How Tight Are the Ties That Bind Stakeholder Groups?” *Organization Science*, 13 (1), 64–80.
YouGov (2023), “Global Market Analysis – Importance of ESG in Consumer Purchase Decisions,” (February 10), https://business.yougov.com/content/7678-global-market-analysis-esg-importance-consumer-purchase-decisions.
Zasuwa, Grzegorz (2016), “Do the Ends Justify the Means? How Altruistic Values Moderate Consumer Responses to Corporate Social Initiatives,” *Journal of Business Research*, 69 (9), 3714–19.