



Research article

Do environmental, social, and governance standards improve the bargaining power of bidders? An empirical investigation

Tanveer Hussain^{a,*}, Abongeh A. Tunyi^b^a University of Essex, UK^b Swansea University, UK

ARTICLE INFO

Handling editor: Lixiao Zhang

JEL classification:

G34

D40

Keywords:

ESG standards

Takeover premiums

Bargaining power

Board independence

Minority shareholder protection

ABSTRACT

Drawing from the bargaining power hypothesis, we investigate the impact of environmental, social, and governance (ESG) standards on takeover premiums in the international takeover market. Using an international sample of 8336 mergers and acquisitions from 26 bidder countries between 2003 and 2021, we find that bidders with higher pre-deal ESG standards – ESG champions – pay lower premiums to win the bid auction, suggesting that better engagement of stakeholders provides higher bargaining power to ESG champions. Contrary to the stylized fact that bidders destroy shareholder value in mergers and acquisitions, the results show that all bidders are not the same, and those with higher ESG standards enjoy takeover benefits. We also show that board independence and minority shareholder protection are potential channels through which ESG champions pay fair premiums to targets. Finally, the results document that ESG champions select targets from dissimilar industries and engage in cross-border deals to strengthen their reputation among stakeholders. Our results pass several robustness tests and hold after addressing the endogeneity issue. Overall, our findings dispense new evidence on how ESG standards increase the bargaining power of focal firms to negotiate on better terms with targets.

1. Introduction

Environmental, social, and governance (ESG) standards are non-compulsory initiatives that firms adopt to improve transparency and accountability towards stakeholders (Broadstock et al., 2021; Cui et al., 2018; Halbritter and Dorfleitner, 2015; Jo and Harjoto, 2011). Firms with higher ESG standards disclose their practices to their stakeholders, prioritize mutual trust, and reduce information asymmetries (Benlemlih, 2017; Kartal et al., 2024; Qian and Liu, 2024; Shahab et al., 2020). The enhanced understanding of ESG standards among the investment community worldwide, their role has also been documented in mergers and acquisitions (M&As), from selection of the target to integrating combining firms (Arouri et al., 2019; Bereskin et al., 2018; Gomes and Marsat, 2018; Maung et al., 2020). Recently, KPMG (2022) conducted a survey and reported that ESG standards are becoming a significant element of decision-making. According to the survey, 50% of private equity firms (PE) in the United States and 70% of PE in the United Kingdom did not pursue M&As because of ESG concerns.

Existing M&As research shows the impact of bidders' ESG on deal completion (Hawn, 2021), stock price reaction (Arouri et al., 2019; Teti

et al., 2022), firm market value (Tampakoudis and Anagnostopoulou, 2020), deal probability (Boone and Uysal, 2020; Gomes and Marsat, 2018), and payment method (Gordano et al., 2024; Hussaini et al., 2023). For instance, Gordano et al. (2024) find that acquires with higher ESG standards are more likely to pay cash, complete the deals faster, and primarily target smaller firms. Considering a recent surge in M&A transactions involving ESG motives (Dessaint et al., 2017; Hussain and Shams, 2022; Hussaini et al., 2023; Malik and Al Mamun, 2024; Zhu and Wang, 2024), it has become essential to investigate how bidders' ESG standards especially those with higher pre-deal ESG – ESG champions – affect their bargaining power. Accordingly, this study extends earlier work by answering two important research questions: (i) Do ESG champions pay lesser premiums to targets relative to low-ESG counterparts? (ii) Does board independence and minority shareholder protection mediate the relationship between ESG champions and takeover premiums?

Importantly, M&As are a bargaining process where a rational bidder wants to buy its target at a fair price so that it can generate value for its shareholders (Ahern, 2012; Bertrand et al., 2016) but high enough to compete with the other bidders and win the bid auction (Alexandridis

* Corresponding author.

E-mail addresses: th22205@essex.ac.uk (T. Hussain), tunyi.abongeh@swansea.ac.uk (A.A. Tunyi).<https://doi.org/10.1016/j.jenvman.2024.123468>

Received 7 June 2024; Received in revised form 11 November 2024; Accepted 23 November 2024

Available online 28 November 2024

0301-4797/© 2024 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

et al., 2010; Humphery-Jenner and Powell, 2011; Hussain and Loureiro, 2023). Therefore, the final deal price is decided by the firm with relatively higher bargaining power (Lee, 2018). We hypothesize that ESG champions affect the bargaining process in M&As and can attract the target at a fair price compared to low-ESG counterparts. It is so because ESG champions face fewer competing bidders, as investing in ESG is a voluntary firm decision that requires abundant financial resources (Hussain et al., 2023). Also, targets may be more interested in ESG-oriented firms because they can learn higher ESG standards from such firms after the acquisitions. Consequently, such bidders may pay fair premiums to targets for realizing takeover gains. Our proposition is consistent with earlier M&A work advocating that bidders can enjoy takeover benefits with higher bargaining power (Ahern, 2012; Hussain et al., 2022). We also hypothesize that better monitoring mechanisms (i. e., board independence and minority shareholder protection) are potential channels through which ESG champions pay fair premiums to targets.

We used an international sample of M&As across 26 bidder nations from 2003 to 2021 to test our hypotheses. We use ESG scores (minimum 0 and maximum 100) from the ASSET4 ESG database to identify ESG champions as those having ESG scores above the sample median one year before the deal announcement. The results show that ESG champions pay 2.9 to 3.7 percentage points lower premiums than non-ESG firms. Apart from the overall ESG score, we observe a similar pattern when using scores on individual environmental, social, and governance dimensions. We also examine the potential channels through which ESG champions negatively affect takeover premiums. The role of better monitoring mechanisms has been reported in M&A research (Crocchi and Petmezas, 2010; Doidge et al., 2007; Lawrence et al., 2024; Redor, 2016). Specifically, ESG champions can have better monitoring mechanisms in place to prevent the empire-building behaviour of managers and work in the best interest of shareholders, thus ensuring better takeover outcomes. We test our conjecture by examining whether board independence and minority shareholder protection mediate the association between ESG champions and premiums. Our results show that ESG champions have higher board independence and better minority shareholder protection rights, which fully mediate the association between ESG champions and takeover premiums. Our results on the ESG champions-premium relationship pass several robustness tests (including alternative thresholds for identifying ESG champions, using subsamples, and controlling for exogenous shock in the sample period) and hold after addressing the endogeneity issue.

This study contributes to M&A literature in three ways. First, we contribute to bargaining power literature in M&As by identifying pre-deal ESG standards as an essential determinant of takeover premiums. The findings align with and extend other studies on bargaining power (Hussain et al., 2022; Kubick et al., 2015; Lee, 2018), documenting that higher ESG standards improve the bargaining power of focal firms to realize takeover benefits. In contrast to the stylized fact that bidders mostly destroy shareholder wealth (Harford et al., 2012; Moeller and Schlingemann, 2004; Renneboog and Vansteenkiste, 2019), we show that those having bargaining power can buy the target on better terms. Second, we add to the literature on the role of monitoring environment in M&As (Ellis et al., 2017; Hussain and Loureiro, 2023; Starks and Wei, 2013; Wang and Xie, 2009) by demonstrating how ESG champions leverage their better monitoring environment to pay fair premiums. Specifically, we show that higher board independence and better standards of minority shareholder protection are boundary conditions under which ESG champions pay fair premiums to targets as managers under independent boards and from countries with better minority shareholder protection rights do not show empire-building behaviour and pay a fair price to targets. Third, we extend the work on takeover choices (Faff et al., 2020; Hussain et al., 2022; Hussain and Shams, 2022) by highlighting that ESG champions have certain choices and engage in cross-border and diversifying deals to strengthen reputation among stakeholders.

The remaining study is arranged as follows: Section 2 explains hypotheses development; Section 3 describes data and methodology; Section 4 presents findings; and Section 5 concludes the study.

2. Literature review and hypotheses development

2.1. Bargaining power in M&As

The literature on the role of bargaining power in M&As has documented that a firm (i.e., either bidder, competing bidder, or target) with higher bargaining power in the takeover process can achieve its desired outcomes. This bargaining power-centered literature can be divided into three categories.

The first line of research investigates how a bidder's higher (lower) bargaining power increases (decreases) takeover returns of bidder shareholders. For instance, Hussain et al. (2022) show that powerful bidders have higher bargaining power than their non-powerful counterparts, positively associated with higher announcement returns. Hussain and Loureiro (2023) find that bidders acquiring targets from competitive industries destroy shareholder wealth due to intense competition among competing bidders. Alexandridis et al. (2010) show that bidders from countries with higher takeover competition realize negative returns, suggesting that the bidder's lower bargaining power results in poor takeover performance. Overall, these studies contend that a higher degree of takeover competition among potential bidders destroys the wealth of bidder shareholders.

The second body of literature examines how the bidder's higher bargaining power than the target affects takeover outcomes. Lee (2018) finds that the higher political uncertainty in the target's home country increases the bidder's bargaining power if the latter is from a politically stronger country. Bertrand et al. (2016) show that poor bilateral political ties between home countries of merging firms (i.e., bidder and target) reduce the bidder's bargaining power because the host country's government intercedes in the deal negotiation process. Hussain and Shams (2022) report a positive association between announcement returns and the bidder's better CSR practices than the target's. The third line of inquiry shows how the target's bargaining power emerges from anti-takeover measures (Comment and Schwert, 1995), termination fees (Officer, 2003), lock-up options (Burch, 2001), cash holdings (Cai and Vihj, 2007), higher CSR practices (Tong et al., 2020), and takeover competition (Alexandridis et al., 2010) affect their post-deal performance. In summary, these studies recommend that a target's higher bargaining power enables them to negotiate on better terms and demand a higher price to realize takeover benefits.

The bargaining power hypothesis can be critically discussed through unique resources (Capron and Pistre, 2002), market conditions (Ahern, 2012), and deal motivations (Michel et al., 2020). In M&As, bidders enjoy higher bargaining power when they own unique resources, either tangible or intangible (Hussain et al., 2024a), to attract targets on fair premiums for increasing their shareholders' wealth. Conversely, targets with takeover defenses (Ertugrul, 2015) or valuable resources (Upadhyay and Zeng, 2017), especially those lacking bidders, can have more bargaining power and ask for higher premiums. Therefore, the relative power of the bidder and target depends on the amount of distinct resources. Also, market conditions such as industry factors (Alexandridis et al., 2010) and regulatory environment (Ellis et al., 2017; Li et al., 2023a,b) affect the bargaining power of merging firms. For instance, industries with rapid technological changes and higher levels of competition also increase bargaining power to firms with innovative capabilities or higher market capitalization (Jurich and Walker, 2021). In the same vein, Lee (2018) suggests that bidders from countries with political stability have better bargaining power if the target is from a country of political instability. Bauer and Matzler (2014) argue that deal motivations enable acquirers to derive takeover success and bargain on better terms. Summarily, the bargaining power hypothesis provides a valuable framework by identifying the significance

of distinct resources in the bargaining process.

Drawing from stakeholder theory (Freeman, 1984), M&A scholars suggest that firm satisfying their stakeholders such as employees, customers, regulators, suppliers, and investors perform better in the takeover market (Bereskin et al., 2018; Cui et al., 2018; Hussain et al., 2023). For instance, Liao and Wu (2024) argue that ESG-focused firms can earn a good reputation from the stakeholders and capital markets reward such firms with higher returns. Hussain and Shams (2022) find that pre-deal difference in CSR standards between merging firms is positively associated with takeover synergies, corroborating that fulfilling stakeholder interests is positively viewed in takeovers. Hussaini et al. (2023) document that bidders with higher transparency emerging from ESG standards are more likely to pay in cash to targets to satisfy their stakeholders. The higher engagement of stakeholders improves a firm's image in restructuring activities such as M&As and eventually leads to higher bargaining power of focal firms. It is so because ESG bidders satisfy their stakeholders and the target also comes under the umbrella of higher ESG standards after the successful takeover.

2.2. Role of ESG in M&As

The importance of ESG in the context of M&As has been emphasized in evaluating takeover outcomes (Barros et al., 2022; Gillan et al., 2021; Lu et al., 2023). A commonly held view in these studies is that firms are involved in M&As to improve their ESG standards and satisfy their stakeholders and investors. For instance, Barros et al. (2022) find a positive association between the firm's ESG score and M&A deal, suggesting that improvements in ESG standards are not realized in the same year of the deal announcement but in the following years. It shows that a firm's sustainability issues are essential to achieving and implementing sustainable development goals in restructuring activities, including M&As. Other studies (Aktas et al., 2011; Gomes and Marsat, 2018) document that M&As between bidders and targets with more robust ESG standards realize takeover synergies and better tackle post-integration challenges.

Another strand of M&A literature highlights the reputational effects of sustainable practices and shows that sustainable firms gain a reputation among their stakeholders and become more attractive to bidders (Hussaini et al., 2023; Maung et al., 2020). Krishnamurti et al. (2019) find that bidders with higher sustainable practices target firms with similar practices to avoid post-deal challenges. This finding is also consistent with Boone and Uysal (2020), who found that firms with lower sustainable practices are less likely to be acquired as bidders avoid the deal's negative spillover. In summary, sustainable practices are highly valued in takeovers to increase reputation in the investment community and build an image of the sustainable firm.

2.3. ESG risk and M&As

The existing studies on ecological risks (Chaudhry et al., 2023; Chen et al., 2023; Shahab et al., 2018; Steffen et al., 2018) emphasize the effect of ESG on firms and investors. Ilhan et al. (2021) argue that investors care about ESG standards for investment decisions and prioritize sustainable firms. Accordingly, firms adopt ESG standards either voluntarily or obligatorily. In many countries such as the United Kingdom, the EU, China, and New Zealand, firms are bound to report ESG standards in financial or sustainability reports due to country laws (Chaudhry et al., 2023). The motive behind mandatory ESG reporting is to improve firms' sustainable practices, however, the effectiveness of obligatory ESG reporting is still challenging as firms also report sustainable practices voluntarily. Firms from countries with mandatory ESG are likely to perform well in M&As (Li et al., 2023a,b), whereby they transfer ESG standards to the target in deals where the latter lacks in ESG practices (Gillan et al., 2021; Gomes and Marsat, 2018). This spillover effect (bidders to targets) translates into a positive stock market reaction and bidder shareholders experience positive returns after

the acquisition. Similarly, bidders from mandatory ESG regimes have less propensity to engage in greenwashing, are well-aligned with the regulations, and stakeholders anticipate higher takeover value from such bidders (Maung et al., 2020). Conversely, bidders from origins with voluntary regulations, on average, perform poorly in ESG practices and destroy shareholders wealth when engaging in M&As (Baloria et al., 2019) as they prefer to buy a target from countries with higher ESG practices to improve their sustainability by paying higher takeover premium (Hussaini et al., 2023).

Other scholars contend that the target's ESG practices determine the level of takeover success (Hussaini et al., 2023; Barros et al., 2022). Target firms' environmental risks include pollution, climate change, resource depletion emerging from past regulatory violations, and pollution incidents (Aktas et al., 2011), which require a due diligence process by the bidder to avoid takeover losses. Identifying the social risk of the target is also important for the bidder to evaluate social practices related to human rights, community relations, and labor standards to know how much the target firm is reputed among employees and the community (Hussain and Shams, 2022). Governance risk encompasses poor board structure, board function, compensation policies, and shareholder rights, which lead to higher agency conflicts in the firm (Barros et al., 2022). In M&As, the bidder should be careful to buy the target with poor governance standards as it will increase post-integration challenges and destroy shareholders' wealth. Taking together three pillars of ESG, it is essential for the bidder to properly evaluate the target's ESG risk to avoid losses in M&As.

2.4. Hypotheses development

Empirical studies suggest that, on average, targets have higher bargaining power and require higher premiums to get financial benefits, whereas bidders typically destroy shareholders' wealth. Importantly, bidders have to balance two opposing factors when deciding the deal offer price (Haleblian et al., 2009) – minimizing takeover costs to maximize takeover gains (Haunschild, 1994; Hussain et al., 2022) and offering an attractive price to discourage competing bidders (Humphery-Jenner and Powell, 2011). Drawing upon the bargaining power hypothesis, we argue that ESG champions can have better negotiating ability than non-ESG bidders due to their better stakeholder engagement and that ESG champions may be more attractive to targets due to their disclosure quality. Therefore, we expect a negative relationship between bidders' pre-deal ESG standards and takeover premiums. More formally, we present our first hypothesis as follows.

Hypothesis 1. *Ceteris paribus*, ESG champions have a negative effect on takeover premiums.

The role of good governance in M&As shows that a better monitoring environment of the bidder reduces agency conflicts and restrains bidder managers from showing empire-building behavior (Ellis et al., 2017; Wang and Xie, 2009). Different internal governance mechanisms, such as board structure, board function, compensation policies, and shareholder rights, ensure that managers work in the shareholders' best interest (Hussain and Loureiro, 2022). Independent boards play a vital role in corporate decision-making (Defrancq et al., 2021; Levi et al., 2014; Schmidt, 2015). In the context of M&As, where managers can derive personal benefits on the cost of shareholders, independent boards prevent managers from making value-destructive M&A deals, not showing empire-building behaviour, facilitating smooth transition after the deal, selecting targets with growth potential, and avoiding overpayments to targets (Boateng et al., 2017; Lu and Wang, 2015). Therefore, the central role of independent boards in M&As is to provide a better monitoring environment under which bidder managers work in the best interest of shareholders. Most recently, Lawrence et al. (2024) found that bidders with independent board members earn positive returns around the deal announcement. Teti et al. (2017) suggest that independent directors provide a strict monitoring environment that forces managers to make

informed decisions regarding M&As. In short, these studies suggest that independent board members curb managerial empire-building behaviour and make better M&A decisions.

Several M&A studies suggest that bidders from countries with better protection of minority shareholders rights experience better takeover outcomes (Bris and Cabolis, 2008; Croci and Petmezas, 2010; Ellis et al., 2017; Hussain et al., 2023; Ouyang and Zhu, 2016). Bidders coming from a better monitoring environment select targets vigilantly (Rossi and Volpin, 2004) and particularly their shareholders earn higher returns when the institutional quality gap between the home countries of bidders and targets is higher (Martynova and Renneboog, 2009; Starks and Wei, 2013). Bris and Cabolis (2008) and Starks and Wei (2013) find that bidders from a better monitoring environment pay fairer premiums to targets and earn positive announcement returns. Thus, we propose that a better monitoring environment explains the negative association between ESG champions and premiums. Based on the discussion, we propose our second hypothesis as follows.

Hypothesis 2. *Ceteris paribus*, board independence, and minority shareholder protection mediate the negative association between ESG champions and takeover premiums.

3. Data and methodology

3.1. Data

We use Securities Data Corporation (SDC) to get M&A data for deals announced between 2003 and 2021. The deal-level data includes the date of the deal announcement, bidder and target status (public or private), payment method (cash, stock, or mix of both), type of deal (domestic or cross-border), combining firms' industries and countries, deal value, and takeover premium. We require that the announced deal is completed and that merging firms are publicly listed so that we can get takeover premium data and calculate the announcement returns of bidders. We drop deals if the bidder is from the financial or utility industries due to different regulations in these industries. We also exclude deals from bidder countries with less than five deals during the sample period to avoid noise in the analysis. The ESG data come from the ASSET4 ESG database, which is widely used in the literature (Drempetic et al., 2020; Halbritter and Dorfleitner, 2015; Hussain and Loureiro, 2023). The stock price and accounting data are from Thomson Reuters' DataStream and WorldScope, respectively. We match our SDC data with ESG data by year and exclude observations with missing values. The final sample covers 26 bidder countries with 8336 deals.¹

3.2. Dependent variable: takeover premium

The poor M&A performance of bidders is often attributed to paying higher premiums to targets (Alexandridis et al., 2010; Rossi and Volpin, 2004; Shams, 2021). Per our established hypotheses, we expect ESG champions to pay lower takeover premiums in the international takeover market. Using SDC, we get data on takeover premiums for one day, one week, and four weeks before the deal announcement. The takeover premium is the bidder's offer price ratio to the target's stock price. Apart from takeover premiums, we also use bidder announcement returns to capture the bidder's takeover performance.

¹ Our initial M&A sample comprises 24,308 deals where 6544 deals are of private targets and the data on takeover premiums is only available for publicly listed targets. We further dropped 4680 deals after applying the mentioned filters. We further dropped 4748 deals where either the ESG or accounting information is unavailable.

3.3. Independent variable of interest: environmental, social, and governance (ESG)

Our key independent variable of interest is the ESG score provided by the ASSET4 ESG database, which assigns a percentage score (minimum 0 and maximum 100) to firms based on their environmental, social, and governance standards. This database uses information from the firm's annual reports and regulatory filings to assign ESG scores. The research design of this study is based on the firm-level ESG strengths; therefore, we use an overall ESG score of the bidder one year before the deal announcement. We also use scores on individual ESG dimensions to ensure that all dimensions carry equal importance. We use the sample median as a cutoff to identify ESG champions – a dummy variable that equals one if the bidder's ESG score is above the sample median and zero otherwise. In our robustness tests, we also used tercile and quintile distributions whereby a bidder is an ESG champion if its ESG score lies in the upper tercile or quintile.

3.4. Control variables

We use two sets of control variables that affect takeover premiums: deal and firm characteristics. The deal characteristics we control include domestic deals, same-industry deals, cash-financed deals, and relative deal size. Within industry and country deals face lesser levels of information asymmetries to estimate the actual value of target resources and, therefore, have more significant potential to pay fair premiums to targets (Eckbo, 2009; Hussain et al., 2024b; Madura and Ngo, 2008; Starks and Wei, 2013). Bidders' cash payments negatively affect takeover premiums (Vladimirov, 2015), whereas stock payments positively affect premiums (Bris, 2002). Relatively larger deals significantly affect takeover outcomes (Eaton et al., 2021; Moeller and Schlingemann, 2004), and larger deals destroy bidder shareholders' wealth by paying higher premiums to targets.

Based on the M&A literature, we also control for merging firms' characteristics such as return on assets (Masulis et al., 2009), Tobin's Q (Hussain et al., 2023), and leverage (Lang et al., 1991); all of them are calculated using one-year lagged values. Higher leverage pressurizes managers not to overpay (Jandik and Makhija, 2005; Lang et al., 1991) and increase firm performance to keep their jobs alive (Gillan et al., 2021). Bidder's Tobin Q ratio negatively affects takeover premiums, whereas Target's Tobin Q positively affects premiums (Servaes, 1991). Bidders' higher return on assets (ROA) negatively affects premiums (Humphery-Jenner and Powell, 2011; Wu and Chung, 2019).

3.5. Estimated models

We employed the cross-sectional regression model to test the effect of ESG champions on takeover premium.

$$\begin{aligned} \text{Takeover premium}_{i,t-1} = & \alpha + \beta_1 \text{ESG Champion}_{i,t-1} + \sum \beta_x \text{Deal controls}_{i,t} \\ & + \sum \beta_y \text{Firm controls}_{i,t-1} + \lambda_a + \eta_b + \gamma_c + \varepsilon_{i,t} \end{aligned} \quad (1)$$

where $\text{Takeover premium}_{i,t-1}$, in separate regressions, is the ratio of the bidder's offer price to the target's stock price one day, one week, and four weeks before the deal announcement. Our variable of interest is $\text{ESG Champion}_{i,t-1}$ which is a dummy variable. $\text{Deal controls}_{i,t}$ is a set of deal-related characteristics for the bidder i at the deal announcement time t and includes: domestic deal, a dummy variable that equals one if bidder and target are from the same country and zero otherwise; same industry deal, a dummy variable with value of one if bidder and target belong to the same Fama-French 12 industry and zero otherwise; cash financed deal, a binary variable that is equal to one if deal is financed with cash and zero otherwise; relative deal size, deal value scaled by the bidder's market value of equity. $\text{Firm controls}_{i,t-1}$ is a set of firm-related

characteristics of the merging firms one year prior to the deal announcement including leverage, long-term debt divided by total assets; return on assets (ROA), operating income scaled by total assets; Tobin's Q, assets minus equity's book value plus equity's market value scaled by total assets. We used year (λ_a), industry (η_b), and country (γ_c) dummies in all of our models to control for omitted factors that can affect takeover premiums. Finally, to mitigate the effect of outliers, we winsorize one percent of distribution tails of takeover premiums, announcement returns, and firm-related controls.

We analyze mediation using the Structural Equation Modeling (SEM) approach to test our second hypothesis and identify potential channels. The literature on the SEM method (Bauer and Matzler, 2014; Hussain et al., 2022; Kelloway, 1995) guides that for a variable to be a good mediator, the previously significant impact of the key independent variable on the primary dependent variable should become insignificant upon including the mediator, keeping the mediator still significant. Following Tenenhaus (2008) for SEM implication, we can easily identify directionality (i.e., better monitoring environment) in the effect of ESG champions on takeover premium after controlling for other determinants of premium.

$$Board\ independence_{i,t-1} = \alpha + \beta_1 ESG\ Champion_{i,t-1} + \sum \beta_x Deal\ controls_{i,t} + \sum \beta_y Firm\ controls_{i,t-1} + \lambda_a + \eta_b + \gamma_c + \varepsilon_{i,t} \tag{2}$$

$$Takeover\ premium_{i,t-1} = \alpha + \beta_2 ESG\ Champion_{i,t-1} + \beta_3 Board\ independence_{i,t-1} + \sum \beta_x Deal\ controls_{i,t} + \sum \beta_y Firm\ controls_{i,t-1} + \lambda_a + \eta_b + \gamma_c + \varepsilon_{i,t} \tag{3}$$

The variable of interest here is *Board independence*_{*i,t-1*} which is the percentage of independent board members whose data is from ASSET4 ESG. All controls are the same as in Eq. (1). The same set of equations is estimated for minority shareholder protection using the revised Antidirector index of Djankov et al. (2008).

4. Empirical results and discussion

4.1. Descriptive statistics

Table 1 shows the sample distribution for M&As with and without ESG champions across deal announcement year (Panel A), bidder industries (Panel B), and bidder countries (Panel C). Panel A shows that the highest number of deals (674) happened in 2016 and the lowest (101) in 2021. The number of completed deals rose from 2003 to 2006, and in the following years, we observed a mixed trend; and importantly, the number of M&A deals reduced dramatically between 2017 and 2021. The potential reasons for this sharp decreasing trend include the Covid-19 pandemic, the US-China trade war, and Brexit negotiations. Panel B shows that most M&A deals (2695) appear in the healthcare industry, followed by the shops (2309), whereas consumer durables represent the lowest number of deals (152). Considering Panel C, we observed that the United States (US) is the dominant country in the international takeover market with 59.35% deals (4947), far greater than France (636), which is in the second spot. On the other hand, Malaysian firms show the lowest acquisition number (7) in our sample.

Table 2 exhibits descriptive statistics of variables employed in the study, along with mean and median differences between high ESG (i.e., ESG champions) and low ESG bidders. Panel A manifests that the average one-day takeover premium is 6.2% (0.062 x 100), and the mean and median differences between ESG champions and non-ESG bidders are negative and statistically significant at a 1% level. A similar trend is observed using other proxies of takeover premiums, and the economic magnitude of premiums is similar to that of other studies (Simonyan, 2014; Sudarsanam and Sorwar, 2010). Panel B shows that the mean

Table 1

Sample distributions This table shows the number of completed deals and the percentage of deals by year (Panel A), bidder industry (Panel B), and bidder country (Panel C). The M&A sample comprises publicly listed bidders and targets reported in Securities Data Corporation (SDC) from 2003 to 2021. We use Fama-French 12 industry categories by eliminating financials (6000–6999) and utilities (4900–4949).

Panel A: Sample distribution by year		
Deal announcement year	Number of deals	Percentage
2003	231	2.77
2004	299	3.59
2005	487	5.84
2006	581	6.97
2007	561	6.73
2008	559	6.71
2009	455	5.46
2010	595	7.14
2011	667	8.00
2012	643	7.71
2013	519	6.23
2014	622	7.46
2015	635	7.62
2016	674	8.09
2017	157	1.88
2018	195	2.34
2019	191	2.29
2020	164	1.97
2021	101	1.21
Total	8336	100.00
Panel B: Distribution by bidder industry		
Bidder industry	Number of deals	Percentage
Consumer nondurables	234	2.81
Consumer durables	152	1.82
Manufacturing	485	5.82
Energy	1013	12.15
Chemicals	395	4.74
Business equipment	583	6.99
Telecommunication	282	3.38
Shops	2309	27.70
Healthcare	2695	32.33
Others	188	2.26
Total	8336	100.00
Panel C: Sample distribution by bidder country		
Bidder country	Number of deals	Percentage
Australia	119	1.43
Austria	63	0.76
Belgium	68	0.82
Brazil	77	0.92
Canada	412	4.94
Chile	17	0.20
China	16	0.19
Denmark	34	0.41
Finland	146	1.75
France	636	7.63
Germany	596	7.15
Greece	16	0.19
India	42	0.50
Italy	44	0.53
Japan	250	3.00
Malaysia	7	0.08
Mexico	43	0.52
Norway	71	0.85
Poland	14	0.17
Portugal	15	0.18
Singapore	23	0.28
Spain	98	1.18
Sweden	181	2.17
Switzerland	225	2.70
United Kingdom	176	2.11
United States	4947	59.35
Total	8336	100.00

Table 2

Descriptive statistics The table reports descriptive statistics (mean, median, standard deviation, 5th percentile, and 95th percentile) of all variables employed in the regression analysis. Our sample covers all M&A deals among publicly listed bidders and targets reported in Securities Data Corporation (SDC) from 2003 to 2021. Takeover premium is the ratio of the bidder’s offer price to the target’s stock price one day, one week, and four weeks before the deal announcement. The key variable of interest “ESG score” is the percentage score (0–100) provided by the ASSET4 ESG. Takeover premium and firm characteristics are winsorized at the bottom and top 1% level. All variables are defined in the Appendix.

Variables							Differences in mean (t-test)			Differences in median (Wilcoxon rank-sum test)		
	Number of deals	Mean	Median	Standard deviation	5th percentile	95th percentile	High ESG Mean	Low ESG Mean	Difference (High-Low)	High ESG Median	Low ESG Median	Difference (High-Low)
Panel A: Takeover premium												
1-day Premium	8336	0.062	0.003	0.203	0.0002	0.602	0.048	0.077	−0.030***	0.002	0.003	−0.001***
1-week Premium	8336	0.065	0.002	0.211	0.0002	0.639	0.051	0.081	−0.030***	0.0021	0.0029	−0.0008***
4-weeks Premium	8336	0.067	0.002	0.220	0.0001	0.651	0.053	0.081	−0.027***	0.001	0.002	−0.001***
Panel B: ESG standards												
ESG score	8336	50.401	50.205	21.736	15.730	84.870						
Environment score	8336	44.157	45.180	36.139	0.000	96.620	68.200	18.406	49.794***	75.290	3.110	72.180***
Social score	8336	63.625	67.595	26.573	14.290	97.830	75.082	51.353	23.729***	82.260	51.140	31.120***
Governance score	8336	57.44	59.915	27.043	10.630	96.450	66.198	48.059	18.140***	70.670	48.290	22.380***
Panel C: Deal characteristics												
Domestic deal dummy	8336	0.530	1.000	0.499	0.000	1.000	0.481	0.583	−0.102***	0.000	1.000	−1.000***
Same industry dummy	8336	0.333	0.000	0.471	0.000	1.000	0.327	0.340	−0.013	0.000	0.000	0.000
Cash financed dummy	8336	0.102	0.000	0.302	0.000	1.000	0.096	0.108	−0.012**	0.000	0.000	0.000***
Relative deal size	8336	0.905	0.485	1.664	0.001	3.105	0.938	0.870	0.068**	0.545	0.423	0.122
Panel D: Firm characteristics												
Bidder leverage	8336	0.174	0.160	0.134	0.000	0.413	0.176	0.171	0.005	0.165	0.154	0.011***
Bidder ROA	8336	0.099	0.073	0.092	0.008	0.280	0.095	0.104	−0.009***	0.072	0.073	−0.001
Bidder Tobin’s Q	8336	2.122	1.739	1.753	0.962	4.301	2.019	2.232	−0.213***	1.735	1.745	−0.010**
Target leverage	8336	0.081	0.076	0.069	−0.017	0.193	0.083	0.078	0.005***	0.077	0.075	0.002***
Target ROA	8336	0.467	0.367	0.438	0.100	1.090	0.474	0.459	0.015	0.366	0.365	0.001
Target Tobin’s Q	8336	0.078	0.076	0.120	0.003	0.184	0.083	0.072	−0.011***	0.080	0.072	0.008***

bidders’ score on ESG accounts for 50.4, similar to Barros et al. (2022), whereas ESG champions have higher scores on all ESG dimensions. For instance, the average score difference between ESG champions and non-ESG counterparts is 49.7, statistically significant at 1%. The ESG champions also have higher scores than non-ESG counterparts in social

and governance dimensions. Panel C shows that most bidders in our sample engaged in domestic deals (53%), diversified industry deals (almost 67%), and stock or mixed financing deals (nearly 90%). These findings are similar to other studies (Ellis et al., 2017; Martynova and Renneboog, 2010; Wang and Xie, 2009). Panel D reports that the

Table 3

Correlation matrix The M&A sample consists of 8336 completed deals reported in Securities Data Corporation (SDC) between 2003 and 2021, where both the bidder and target are publicly listed firms. Premium is the ratio of bidder’s offer price to the target’s stock price one day, one week, and four weeks before the deal announcement. The variable of interest “ESG score” is the percentage score provided by the ASSET4 ESG. All variables are defined in the Appendix; *, **, and *** show statistical significance level at 10%, 5% and 1% respectively.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1-day Premium	1.00													
1-week Premium	0.98*	1.00												
4-weeks Premium	0.94*	0.96*	1.00											
ESG score	−0.06*	−0.06*	−0.05*	1.00										
Domestic deal dummy	−0.04*	−0.04*	−0.02*	−0.11*	1.00									
Same industry dummy	0.01	0.01	0.02	−0.03	−0.05*	1.00								
Cash financed dummy	0.04*	0.05*	0.05*	−0.04*	0.03*	0.00	1.00							
Relative deal size	−0.10*	−0.10*	−0.11*	0.00	0.01	0.03	−0.06*	1.00						
Bidder leverage	−0.02	−0.02	−0.01	−0.02	−0.01	−0.02	−0.02	−0.09*	1.00					
Bidder ROA	−0.05*	−0.06*	−0.05*	−0.05*	0.03*	0.07*	0.02	0.12*	−0.19*	1.00				
Bidder Tobin’s Q	−0.06*	−0.06*	−0.06*	−0.02	0.08*	0.04*	−0.02	0.23*	−0.17*	0.35*	1.00			
Target leverage	−0.10*	−0.10*	−0.10*	0.08*	0.08*	0.02	−0.06*	0.26*	−0.23*	0.29*	0.48*	1.00		
Target ROA	0.11*	0.10*	0.10*	−0.01	−0.05*	0.01	0.05*	−0.19*	−0.03*	−0.18*	−0.37*	−0.33*	1.00	
Target Tobin’s Q	0.01	0.00	0.00	0.07*	−0.03*	−0.03*	−0.05*	−0.14*	0.06*	−0.11*	−0.10*	0.02	0.09*	1.00

*p < 0.1; **p < 0.05; ***p < 0.01.

bidder’s average leverage, ROA, and Tobin’s Q are 0.17, 0.09, and 2.12, respectively, similar to Hussain and Loureiro (2023). Interestingly, the mean leverage values and Tobin’s Q for bidders are significantly higher than targets. On the other hand, the mean ROA is far higher in targets compared to the bidders, and this indicates the bidders’ general strategy in pursuing suitable targets, i.e., the firms with low leverage and Tobin’s Q but higher ROA.

Table 3 shows correlations among all involved variables. Importantly, we find that takeover premium proxy values are highly correlated, and that’s why we use one proxy at a time to gauge the impact of ESG standards on premiums. We also observed that ESG scores and takeover premiums are negatively correlated. Among other variables, we find that some variables are mildly correlated while others are not.

4.2. ESG champions and takeover premiums

We estimate Eq. (1) to examine the impact of ESG champions on takeover premiums and present the results in Table 4. In Models (1) to (3) of Table 4, we estimate the baseline model without controlling for other determinants of takeover premiums and find a negative and significant impact of ESG champions on the premiums. After controlling for deal and firm-specific characteristics in Models (4) to (6), the impact remains significant, confirming that ESG champions pay lower takeover premiums. Economically, ESG champions pay 2.9 to 3.7 percentage points lower takeover premiums than non-ESG counterparts. These results show that the first hypothesis is accepted, suggesting that ESG champions have bargaining power and pay fair premiums to targets. Among controls, the coefficients are similar in statistical significance and magnitude (Models 4 to 6). Importantly, we find that cash financing positively affects takeover premiums, and it is consistent with other studies that suggest the hubristic behaviour of managers in the presence of abundant cash (Martynova and Renneboog, 2008; Pereira, 2016).

Table 4

ESG champions and takeover premium The M&A sample consists of 8336 completed deals reported in Securities Data Corporation (SDC) between 2003 and 2021, where both the bidder and target are publicly listed firms. The key variable of interest “ESG champion” is a dummy variable with the value of one if the bidder’s ESG score is above the sample median and zero otherwise. The dependent variable is the takeover premium defined as the ratio of the bidder’s offer price to the target’s stock price one day, one week, and four weeks before the deal announcement. All other variables are defined in the Appendix; standard errors are corrected for heteroscedasticity (White,1980); t-statistics are reported in parenthesis; *, **, and *** show statistical significance at 10%, 5% and 1% levels, respectively. All models use year, industry, and country fixed effects, whose coefficients are not reported for brevity.

Dependent variables:	(1)	(2)	(3)	(4)	(5)	(6)
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks
ESG champion	-0.035*** (-7.419)	-0.037*** (-7.453)	-0.031*** (-6.144)	-0.034*** (-7.200)	-0.035*** (-7.161)	-0.029*** (-5.748)
Domestic deal dummy				0.006 (1.267)	0.005 (1.074)	0.011** (2.070)
Same industry dummy				0.006 (1.436)	0.007 (1.432)	0.010* (1.906)
Cash financed dummy				0.017** (2.287)	0.023*** (2.888)	0.025*** (2.815)
Relative deal size				-0.007* (-1.871)	-0.007* (-1.931)	-0.008** (-1.982)
Bidder leverage				-0.012 (-0.672)	-0.008 (-0.401)	-0.013 (-0.614)
Bidder ROA				-0.020 (-0.893)	-0.026 (-1.100)	-0.024 (-0.986)
Bidder Tobin’s Q				-0.001 (-0.460)	-0.000 (-0.303)	-0.000 (-0.260)
Target leverage				0.020 (0.479)	-0.002 (-0.040)	-0.020 (-0.383)
Target ROA				0.013 (1.552)	0.010 (1.197)	0.010 (1.111)
Target Tobin’s Q				-0.023 (-1.300)	-0.037 (-1.556)	-0.050* (-1.884)
Constant	0.139*** (6.636)	0.146*** (6.374)	0.142*** (6.234)	0.129*** (5.842)	0.136*** (5.718)	0.131*** (5.435)
Year, industry, and country FE	Yes	Yes	Yes	Yes	Yes	Yes
N	8336	8336	8336	8336	8336	8336
R ²	0.131	0.123	0.109	0.136	0.129	0.116

*p < 0.1; **p < 0.05; ***p < 0.01.

Consistent with earlier studies on bargaining power (Hussain et al., 2022; Kubick et al., 2015; Lee, 2018), and stakeholder theory (Bereskin et al., 2018; Hussaini et al., 2023), our findings are evident that bidders with pre-deal ESG standards, on average, pay lower takeover premiums as they are in a better position to bargain on better terms for driving takeover value. We attribute our findings to the bargaining power hypothesis (see, among others, Ahern, 2012; Bradley et al., 1988) and stakeholder theory (Hussaini et al., 2023), suggesting that one potential source of better takeover performance is the bidder’s ex-ante ESG, which we propose permits bidders to pay a lower price to targets. It means better ESG standards increase a firm’s reputation among stakeholders and improve their negotiating ability in restructuring activities such as M&As. Our results suggest that not all bidders are the same in the international takeover market; those with higher bargaining power perform better and realize takeover benefits.

Apart from overall ESG score, we also consider scores on individual ESG dimensions and reestimate Eq. (1). Table 5 presents the effect of individual dimensions such as environmental, social, and governance on takeover premiums. We find qualitatively similar results as reported in Table 5 and argue that all dimensions of ESG standards are equally important to improve the bidder’s bargaining power. Economically, the impact of the social dimension is the highest in absolute value terms (2.5–3.0 percentage points). All the models include year, industry, and country fixed effects along with the same set of controls as in Table 4. We next explore the potential channels through which ESG champions pay fair takeover premiums.

4.3. Role of monitoring environment

Better monitoring affects the bidder’s bargaining power because managers under independent boards or from countries with higher minority shareholder protection rights do not show hubristic or empire-

Table 5

Subcategories of ESG and takeover premium This table shows the regression results for the effect of high ESG standards on takeover premium for three subcategories (i.e., high environment, high social, high governance), separately. The key variables of interest, in separate regression models, high environment dummy, high social dummy, and high governance dummy are dummy variables having the value of one if the bidder's score in these categories lies above the sample median and zero otherwise. Our dependent variable is the takeover premium defined as the ratio of the bidder's offer price to the target's stock price one day, one week, and four weeks before the deal announcement. All models use year, industry, and country fixed effects, whose coefficients are not reported for brevity. *, **, and *** show statistical significance at 10%, 5% and 1% levels, respectively; t-statistics are reported in parenthesis; standard errors are corrected for heteroscedasticity (White,1980).

Dependent variables:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks	1-day	1-week	4-weeks
High environment dummy	-0.020*** (-4.212)	-0.022*** (-4.282)	-0.015*** (-2.997)						
High social dummy				-0.030*** (-6.522)	-0.030*** (-6.212)	-0.025*** (-5.013)			
High governance dummy							-0.014*** (-3.188)	-0.014*** (-3.006)	-0.013*** (-2.798)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	8336	8336	8336	8336	8336	8336	8336	8336	8336
R ²	0.132	0.125	0.113	0.135	0.127	0.115	0.131	0.124	0.113

*p < 0.1; **p < 0.05; ***p < 0.01.

building behaviour and pay a fair price to targets for increasing their shareholder's wealth (Cremers and Nair, 2005; Ellis et al., 2017; Hussain et al., 2023). Here, as in Table 6 we show that board independence and minority shareholder protection serve as channels through which ESG standards affect bargaining ability.

Considering Models (1) and (5), we observe that high ESG has a significant and positive relationship with board independence and minority shareholder protection (proxied by the Anti-director index), satisfying a key condition of mediation. Models (2) to (4) represent a significant negative impact of board independence on takeover premiums while the ESG champion dummy turns out to be insignificant in these models; hence, the final condition of good mediation is satisfied in all models. Further, to capture the minority shareholder rights, we use revised Anti-director index of Djankov et al. (2008) and find that ESG champions pay lower price to targets through better monitoring environment provided by protection rights of minority shareholders, corroborating that the second hypothesis is accepted.

These results extend the work on bidders' better monitoring environment in M&As (Banerjee et al., 2015; Ellis et al., 2017; Martynova and Renneboog, 2008; Wang and Xie, 2009; Hussain and Loureiro, 2022). For instance, Banerjee et al. (2015) find that independent boards prohibit overconfident CEOs from destroying firm value and help increase their performance during mergers and our results align with their findings. We suggest that independent directors can provide unbiased views on the deal and prevent the management from overpaying. The results on minority shareholder protection are also aligned with other studies (Bris and Cabolis, 2008; Hussain et al., 2023; Hussain and

Loureiro, 2023) and suggest that managers from countries with better institutional quality do not engage in empire-building behaviour and pay a fair price to targets.

4.4. Additional analyses

We further analyze whether ESG champions generate positive bidder announcement returns and have certain acquisition choices. The most plausible explanation for lower bidder returns is the payment of hefty premiums to targets (Alexandridis et al., 2010; Shams, 2021). Since we find that ESG champions pay fair premiums to targets, they will generate positive returns. Panel (A) of Table 7 shows that, on average, ESG champions earn 0.2 to 0.8 percentage points higher announcement returns than non-ESG bidders. It corroborates our conjecture that lower premiums translate into higher returns and complements studies documenting that bidders destroy shareholder wealth (Moeller et al., 2005; Liu et al., 2009). We argue that bidders' bargaining power is crucial to generating shareholder wealth. Panel (B) documents that ESG champions prefer cross-border (Model 1) and diversified (Model 2) deals, suggesting that ESG champions strengthen their reputation among stakeholders by engaging in diversified and cross-border deals. We further find that ESG champions are timely efficient and finalize the deal quickly (Panel C), which is consistent with the finding of Gordano et al. (2024). In short, these results provide further insights into the bargaining power of ESG champions and suggest that apart from financial gains, there are also non-financial gains associated with higher ESG standards.

Table 6

Role of monitoring environment The M&A sample comprises 8336 completed deals reported in Securities Data Corporation (SDC) between 2003 and 2021, where the bidder and target are publicly listed firms. In models 2 to 4, the key variable of interest "Board independence" is a percentage score (lowest 0 and highest 100) from ASSET4 ESG. We use Anti-director index as a proxy for minority shareholder protection rights. The dependent variable is the takeover premium defined as the ratio of the bidder's offer price to the target's stock price one day, one week, and four weeks before the deal announcement. Standard errors are corrected for heteroscedasticity (White,1980); z-statistics are reported in parenthesis; *, **, and *** show statistical significance at 10%, 5% and 1% levels, respectively. All models use year, industry, and country fixed effects, whose coefficients are not reported for brevity.

Dependent variables:	Firm governance			Takeover premium			Minority shareholder protection		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Board independence		1-day	1-week	4-weeks	Anti-director index	1-day	1-week	4-weeks	
ESG champion	3.134*** (10.450)	-0.0001 (-0.050)	0.0001 (0.050)	0.004 (1.130)	0.194*** (9.960)	-0.0003 (-0.100)	0.0004 (0.010)	0.003 (1.070)	
Board independence		-0.009*** (-73.580)	-0.009*** (-75.300)	-0.009*** (-72.780)					
Anti-director index						-0.148*** (-79.200)	-0.157*** (-81.250)	-0.159*** (-77.560)	
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
N	8336	8336	8336	8336	8336	8336	8336	8336	

*p < 0.1; **p < 0.05; ***p < 0.01.

Table 7

Additional analyses – announcement returns, takeover choices, and acquisition efficiency Panel A reports regression results for the impact of ESG champion on the bidder’s cumulative abnormal returns (using event windows of 3-day, 5-day, 7-day, 11-day, 21-day, and 51-day). Our dependent variable is cumulative abnormal returns (CARs) around the deal announcement which are computed using the market model for the period of 255 to 25 days before the deal announcement. Panel B shows the effect of ESG champion on certain acquisition choices – cross-border deals and diversified deals. The dependent variable cross-border deal is a dummy variable that is equal to one if a particular M&A deal is between firms from different countries and zero otherwise; diversified deal is a dummy variable with the value of one if the bidder and target are from different Fama-French 12 industrial categories. Standard errors are corrected for heteroscedasticity (White,1980); t-statistics are reported in parenthesis; *, **, and *** show statistical significance at 10%, 5% and 1% levels, respectively. All models use year, industry, and country fixed effects, whose coefficients are not reported for brevity.

Panel A: Announcement returns						
Dependent variables:	(1)	(2)	(3)	(4)	(5)	(6)
Cumulative abnormal returns	3-day CARs	5-day CARs	7-day CARs	11-day CARs	21-day CARs	51-day CARs
ESG champion	0.002*** (3.352)	0.005*** (5.391)	0.005*** (4.612)	0.006*** (4.435)	0.006*** (3.074)	0.008** (2.378)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes	Yes	Yes	Yes
N	8336	8336	8336	8336	8336	8336
R ²	0.039	0.035	0.033	0.034	0.044	0.046

Panel B: Takeover choices and acquisition efficiency			
Dependent variables:	Takeover choices		Acquisition efficiency
	(1)	(2)	(3)
	Cross-border deals	Diversified deals	Log days
ESG champion	0.115*** (3.660)	0.092*** (2.894)	-0.245*** (-8.808)
Control variables	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes
N	8336	8336	8336
Pseudo R ²	0.121	0.051	0.108

*p < 0.1; **p < 0.05; ***p < 0.01.

4.5. Addressing endogeneity

Our findings suggest that ESG champions pay lower prices to acquire targets. However, the findings may suffer from sample selection bias or reverse causality because firms with specific characteristics involved in M&As and lower takeover premiums may determine higher ESG standards. Therefore, we use the propensity score matching (PSM) technique to address sample selection bias. We use a one-to-one without replacement matching algorithm to determine the control group (non-ESG bidders) sharing characteristics similar to the treatment group (ESG champions). As presented in Panel (A) of Table 8, the results show that even after controlling for sample selection bias, ESG champions still pay lower premiums to targets. Panel (B) presents the estimates from the 2SLS regression used to deal with the endogeneity arising from reverse causality and simultaneity. We use “industry median ESG” values as instruments to compute the fitted ESG values in the first stage. To ensure exogeneity, the industry-wide median ESG scores should not be related to the takeover premium (primary dependent variable) by any means, which we have confirmed through a separate correlation test. The results from the second stage are no different from our main findings in Table 4 and show a significant and negative effect of the high ESG scores on takeover premiums.

4.6. Robustness tests

We conducted several robustness tests to make sure that inferences drawn are not derived by the measure of ESG champions (i.e., sample median), dominant subsamples (i.e., year, industry, or country), and do not change after controlling for exogenous shocks (i.e., financial crisis and covid). Panel (A) of Table 9 shows that the impact of high ESG standards remains significantly negative even if we divide samples into higher and lower terciles (quintiles) or replace the ESG dummy with original ESG scores as the main independent variable. Consistent with our primary estimates, lower terciles and quintiles of ESG scores have no significant impact on the takeover premium. Panel (B) shows results after excluding the dominant year (2016), industry (Healthcare), and country (the US). We still find that, on average, ESG champions pay

lower premiums. Most M&A transactions occur in market booms, leading to underperformance in the long run compared with the deals completed during market busts (Bouwman et al., 2009). So, we further analyze the impact of high-ESG standards on takeover premium changes due to the global financial crisis and COVID-19. The results in Panel (C) show that our results still hold even after controlling for these exogenous shocks. Apart from the takeover premium paid to targets, we also examine how bidders’ ESG standards affect target announcement returns. We use similar event windows to calculate target returns as of the bidder and expect a negative association between ESG champion and target returns. The results are reported in Panel (D), corroborating our conjecture that fair premiums reduce target returns. In Panel (E), we show that the ESG champion-premium relationship continues even after splitting our sample into two subsamples (2003–2012 and 2013–2021), confirming that the reported relationship exists in both subsamples. In Panel (F), we reestimate our baseline models for two subsamples of English origin bidders versus European Union bidders. The results show that ESG champions pay fair premiums to targets in both subsamples.

5. Conclusion

We examine the effect of pre-deal ESG standards of bidders on takeover premiums using an international sample of 8336 M&As from 2003 to 2021. Our ESG champion measurement is based on the bidder’s ESG score one year before the deal announcement, and the bidder is the ESG champion if its ESG score is above the sample median. The results show that the bidders classified as ESG champions in our takeover sample pay relatively lower premiums and realize takeover benefits. Our results support the bargaining power hypothesis and recommend that ESG champions employ their bargaining power to pay fair premiums to targets. Also, we identify that better monitoring mechanisms of higher board independence and minority shareholder protection are potential channels through which bidders’ ESG standards translate to takeover performance.

Further, ESG champions engage in diversifying and cross-border deals to gain a reputation among stakeholders. Together, we show new evidence of how ESG standards create bargaining power to acquire

Table 8

Endogeneity This table shows results for the effect of high ESG standards on takeover premium after addressing sample selection bias (Panel A) and reverse causality (Panel B). The dependent variable is the takeover premium defined as the ratio of the bidder’s offer price to the target’s stock price one day, one week, and four weeks before the deal announcement. All other variables are defined in the Appendix; standard errors are corrected for heteroscedasticity (White,1980); t-statistics are reported in parenthesis; *, **, and *** show statistical significance at 10%, 5% and 1% levels, respectively. All models use year, industry, and country fixed effects, whose coefficients are not reported for brevity.

Panel A: Propensity Score Matching (PSM)				
Dependent variables:	(1)	(2)	(3)	
Takeover premium	1-day	1-week	4-weeks	
ESG champion	-0.032*** (-5.416)	-0.033*** (-5.358)	-0.027*** (-4.232)	
Control variables	Yes	Yes	Yes	
Year, industry, & country FE	Yes	Yes	Yes	
N	6167	6167	6167	
R ²	0.101	0.097	0.091	

Panel B: Two stage least square (2SLS)	First stage	Second stage		
	(1)	(2)	(3)	(4)
		1-day	1-week	4-week
Industry median ESG	0.017*** (14.221)			
ESG (fitted)		-0.104** (-2.485)	-0.098** (-2.249)	-0.078*** (-1.761)
Control variables	Yes	Yes	Yes	Yes
Year, industry, and country FE	Yes	Yes	Yes	Yes
Underidentification test (Anderson Canon. Corr. LM statistics)		442.169		
p value		(0.000)		
Weak identification test (Cragg-Donald Wald F statistics)		466.264		
Overidentification test (Sargan statistics)		0.625		
p value		(0.817)		
N	8336	8336	8336	8336
R ²	0.181	0.131	0.124	0.113

*p < 0.1; **p < 0.05; ***p < 0.01.

targets on better terms. The documented results are robust to alternative identification of ESG champions, using different subsamples and controlling for exogenous shocks, and hold after addressing potential endogeneity issues. Our work shows that sustainable practices are vital to achieving sustainable development goals in restructuring activities such as M&As.

This study offers important theoretical implications for the bargaining power hypothesis, showing that apart from firms’ financial soundness, ESG practices are also important determinants of bargaining power in takeover negotiations. We suggest that higher ESG practices provide more power to focal firms to negotiate on better terms and pay

Appendix. Variable definitions

Variable	Definition
Panel A: Takeover premium	
Takeover premium	Ratio of the offer price to the target’s stock price one day, one week, and four weeks before the deal announcement. Source: SDC.
Panel B: ESG standards	
High ESG dummy	Dummy variable: 1 for bidders with higher (more than sample median) ESG score, 0 otherwise. Source ASSET4 ESG.
Panel C: Deal characteristics	
Domestic deal dummy	Dummy variable: 1 for domestic deal, 0 otherwise. Source: SDC.
Same industry dummy	Dummy variable: 1 for the same Fama-French 12 industry category, 0 otherwise. Source: SDC.
Cash financed dummy	Dummy variable: 1 for the purely cash-financed deal, 0 otherwise. Source: SDC.

(continued on next page)

fair premiums, which is the most common factor in M&A success. In doing so, we improve the knowledge of the bargaining power in takeovers and how this can determine takeover outcomes. For example, it is well-established that bidders, on average, destroy shareholder wealth, and we show that all bidders are not the same, especially those with sustainable practices, can derive takeover benefits by offering fair premiums through bargaining power.

We also offer implications for bidder managers, regulators, and shareholders. Our evidence documents that ESG champions outperform less-ESG counterparts. For potential bidders, it implies that investment in ESG standards is essential in establishing future M&A success, whether proxied by takeover premiums, takeover choices, or announcement returns. Our subsample analyses across different periods and countries provide more generalizability of results for corporate managers to consider ESG champions as value drivers in takeovers. Overall, ESG investment focuses on the UN sustainable development goals and more importantly in the context of this study, a fair takeover premium satisfies the goal of “Responsible Consumption and Production”, assisting managers in identifying investment decisions of ESG champions. Our study also provides insights for regulators on how international M&As can serve as a vehicle to promote ESG standards. Therefore, regulators must stress fair disclosures of ESG standards to improve information flow in restructuring activities, including M&As. Shareholders can use ESG standards as a signal about the quality of a firm to make informed investment decisions.

Our work is subject to a few limitations that welcome future research in the domain of M&As. First, we use M&As as a setting for examining the effect of ESG on premiums and can not generalize our findings to other restructuring activities including strategic alliances and joint ventures. Future studies can examine whether better ESG standards have similar impacts on other restructuring activities. Second, we use secondary data that do not permit us to get information on private bidders and further work can be done using a sample of private bidders to generalize our findings. Finally, we examine the impact of ESG standards on takeover premiums, announcement returns, and acquisition choices. However, others can investigate the effect of ESG standards on the probability of deal completion and combined returns to merging firms.

CRedit authorship contribution statement

Tanveer Hussain: Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Methodology, Investigation, Formal analysis, Conceptualization. **Abongeh A. Tunyi:** Supervision, Methodology, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Table 9

Robustness tests The table shows regression results for the effect of high ESG standards on takeover premium after using alternative thresholds for ESG champions – tertiles and quintiles and original ESG score (Panel A), excluding top year, industry, and country (Panel B), controlling for financial crisis and covid (Panel C). All variables are defined in the Appendix; standard errors are corrected for heteroscedasticity (White,1980); t-statistics are reported in parenthesis; *, **, and *** show statistical significance at 10%, 5% and 1% levels, respectively. All models use year, industry, and country fixed effects, whose coefficients are not reported for brevity.

Panel A: Alternative thresholds and ESG score									
Dependent variables:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks	1-day	1-week	4-weeks
Lower tertile	0.006 (1.224)	0.007 (1.258)	0.003 (0.617)						
Upper tertile	-0.022*** (-4.012)	-0.021*** (-3.640)	-0.019*** (-3.046)						
Lower quintile				-0.005 (-0.711)	-0.003 (-0.380)	-0.003 (-0.453)			
Upper quintile				-0.035*** (-5.309)	-0.032*** (-4.591)	-0.031*** (-4.170)			
ESG score							-0.001*** (-5.899)	-0.001*** (-5.623)	-0.001*** (-4.812)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	8336	8336	8336	8336	8336	8336	8336	8336	8336
R ²	0.133	0.126	0.114	0.137	0.129	0.117	0.134	0.127	0.115

Panel B: Excluding top year, industry, and country									
Dependent variables:	Excluding 2016			Excluding healthcare industry			Excluding US		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks	1-day	1-week	4-weeks
ESG champion	-0.036*** (-7.330)	-0.038*** (-7.268)	-0.031*** (-5.822)	-0.031*** (-5.088)	-0.032*** (-5.033)	-0.026*** (-3.900)	-0.117*** (-12.07)	-0.121*** (-11.94)	-0.109*** (-10.97)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	7662	7662	7662	5641	5641	5641	3389	3389	3389
R ²	0.142	0.134	0.120	0.142	0.133	0.120	0.240	0.230	0.225

Panel C: Controlling for financial crisis and covid							
Dependent variables:	(1)	(2)	(3)	(4)	(5)	(6)	
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks	
ESG champion		-0.034*** (-7.200)	-0.035*** (-7.161)	-0.029*** (-5.748)	-0.034*** (-7.200)	-0.035*** (-7.161)	-0.029*** (-5.748)
Financial crisis		-0.111*** (-6.112)	-0.104*** (-5.495)	-0.108*** (-5.462)			
Covid					-0.078*** (-3.619)	-0.078*** (-3.506)	-0.078*** (-3.042)
Control variables		Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE		Yes	Yes	Yes	Yes	Yes	Yes
N		8336	8336	8336	8336	8336	8336
R ²		0.136	0.129	0.116	0.136	0.129	0.116

Panel D: Target announcement returns						
Dependent variables:	(1)	(2)	(3)	(4)	(5)	(6)
Cumulative abnormal returns	3-day CARs	5-day CARs	7-day CARs	11-day CARs	21-day CARs	51-day CARs
ESG champion	-0.006*** (-3.404)	-0.008*** (-3.704)	-0.008*** (-3.238)	-0.008*** (-2.745)	-0.009* (-1.847)	-0.014** (-2.044)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes	Yes	Yes	Yes
N	8336	8336	8336	8336	8336	8336
R ²	0.012	0.013	0.010	0.010	0.011	0.007

Panel E: Subsamples over time						
Dependent variables:	2003–2012			2013–2021		
	(1)	(2)	(3)	(4)	(5)	(6)
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks
ESG champion	-0.043*** (-6.834)	-0.045*** (-6.686)	-0.038*** (-5.471)	-0.017** (-2.381)	-0.017** (-2.469)	-0.014* (-1.813)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes	Yes	Yes	Yes
N	5078	5078	5078	3258	3258	3258
R ²	0.160	0.152	0.131	0.145	0.143	0.136

Panel F: English versus European union						
Dependent variables:	Bidders from English origin			Bidders from EU origin		
	(1)	(2)	(3)	(4)	(5)	(6)
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks
ESG champion	-0.017*** (-3.609)	-0.016*** (-3.306)	-0.019*** (-3.429)	-0.191*** (-14.243)	-0.195*** (-13.880)	-0.180*** (-13.654)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, & country FE	Yes	Yes	Yes	Yes	Yes	Yes

(continued on next page)

Table 9 (continued)

Panel C: Controlling for financial crisis and covid						
Dependent variables:	(1)	(2)	(3)	(4)	(5)	(6)
Takeover premium	1-day	1-week	4-weeks	1-day	1-week	4-weeks
N	5654	5654	5654	2191	2191	2191
R ²	0.036	0.040	0.042	0.320	0.299	0.304

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

(continued)

Variable	Definition
Relative deal size	Deal value scaled by bidder market value of equity. Sources: SDC and World Scope.
Panel D: Firm characteristics	
Leverage	Long-term debt divided by total assets. Source: WorldScope.
Return on assets (ROA)	Operating income divided by total assets. Source: WorldScope.
Tobin's Q	(Assets minus book value of equity plus market value of equity) divided by assets. Source: WorldScope.
Panel E: Mediators	
Board independence	Percentage of independent board members. Source: ASSET4 ESG.
Minority shareholder protection	Revised Anti-director index. Source: Djankov et al. (2008).

Data availability

The authors do not have permission to share data.

References

- Ahern, K.R., 2012. Bargaining power and industry dependence in mergers. *J. Financ. Econ.* 103 (3), 530–550.
- Aktas, N., De Bodt, E., Cousin, J.G., 2011. Do financial markets care about SRI? Evidence from mergers and acquisitions. *J. Bank. Finance* 35 (7), 1753–1761.
- Alexandridis, G., Petmezas, D., Travlos, N.G., 2010. Gains from mergers and acquisitions around the world: new evidence. *Financ. Manag.* 39 (4), 1671–1695.
- Aroui, M., Gomes, M., Pukthuanthong, K., 2019. Corporate social responsibility and M&A uncertainty. *J. Corp. Finance* 56, 176–198.
- Baloria, V.P., Klassen, K.J., Wiedman, C.I., 2019. Shareholder activism and voluntary disclosure initiation: the case of political spending. *Contemp. Account. Res.* 36 (2), 904–933.
- Banerjee, S., Humphery-Jenner, M., Nanda, V., 2015. Restraining overconfident CEOs through improved governance: Evidence from the Sarbanes-Oxley Act. *Rev. Financ. Stud.* 28 (10), 2812–2858.
- Barros, V., Matos, P.V., Sarmiento, J.M., Vieira, P.R., 2022. M&A activity as a driver for better ESG performance. *Technol. Forecast. Soc. Change* 175, 121338.
- Bauer, F., Matzler, K., 2014. Antecedents of M&A success: the role of strategic complementarity, cultural fit, and degree and speed of integration. *Strat. Manag. J.* 35 (2), 269–291.
- Benlemlih, M., 2017. Corporate social responsibility and firm financing decisions: a literature review. *J. Multinat. Financ. Manag.* 42, 1–10.
- Bereskin, F., Byun, S.K., Officer, M.S., Oh, J.M., 2018. The effect of cultural similarity on mergers and acquisitions: evidence from corporate social responsibility. *J. Financ. Quant. Anal.* 53 (5), 1995–2039.
- Bertrand, O., Betschinger, M.A., Settles, A., 2016. The relevance of political affinity for the initial acquisition premium in cross-border acquisitions. *Strat. Manag. J.* 37 (10), 2071–2091.
- Boateng, A., Bi, X., Brahma, S., 2017. The impact of firm ownership, board monitoring on operating performance of Chinese mergers and acquisitions. *Rev. Quant. Finance Account.* 49, 925–948.
- Boone, A., Uysal, V.B., 2020. Reputational concerns in the market for corporate control. *J. Corp. Finance* 61, 101399.
- Bouwman, C.H., Fuller, K., Nain, A.S., 2009. Market valuation and acquisition quality: empirical evidence. *Rev. Financ. Stud.* 22 (2), 633–679.
- Bradley, M., Desai, A., Kim, E.H., 1988. Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *J. Financ. Econ.* 21 (1), 3–40.
- Bris, A., 2002. Toeholds, takeover premium, and the probability of being acquired. *J. Corp. Finance* 8 (3), 227–253.
- Bris, A., Cabolis, C., 2008. The value of investor protection: firm evidence from cross-border mergers. *Rev. Financ. Stud.* 21 (2), 605–648.
- Broadstock, D.C., Chan, K., Cheng, L.T., Wang, X., 2021. The role of ESG performance during times of financial crisis: evidence from COVID-19 in China. *Finance Res. Lett.* 38, 101716.
- Burch, T.R., 2001. Locking out rival bidders: the use of lockup options in corporate mergers. *J. Financ. Econ.* 60 (1), 103–141.
- Cai, J., Vijh, A.M., 2007. Incentive effects of stock and option holdings of target and acquirer CEOs. *J. Finance* 62 (4), 1891–1933.
- Capron, L., Pistre, N., 2002. When do acquirers earn abnormal returns? *Strat. Manag. J.* 23 (9), 781–794.
- Chaudhry, S.M., Chen, X.H., Ahmed, R., Nasir, M.A., 2023. Risk modelling of ESG (environmental, social, and governance), healthcare, and financial sectors. *Risk Anal.* 44 (9), 1–19.
- Chen, X., Chen, X., Xu, L., Wen, F., 2023. Attention to climate change and downside risk: evidence from China. *Risk Anal.* 43 (5), 1011–1031.
- Comment, R., Schwert, G.W., 1995. Poison or placebo? Evidence on the deterrence and wealth effects of modern antitakeover measures. *J. Financ. Econ.* 39 (1), 3–43.
- Creemers, K.M., Nair, V.B., 2005. Governance mechanisms and equity prices. *J. Finance* 60 (6), 2859–2894.
- Croci, E., Petmezas, D., 2010. Minority shareholders' wealth effects and stock market development: evidence from increase-in-ownership M&As. *J. Bank. Finance* 34 (3), 681–694.
- Cui, J., Jo, H., Na, H., 2018. Does corporate social responsibility affect information asymmetry? *J. Bus. Ethics* 148, 549–572.
- Dessaint, O., Golubov, A., Volpin, P., 2017. Employment protection and takeovers. *J. Financ. Econ.* 125 (2), 369–388.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2008. The law and economics of self-dealing. *J. Financ. Econ.* 88 (3), 430–465.
- Doidge, C., Karolyi, G. A., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance?. *Journal of financial economics*, 86(1), 1-39.
- Defrancq, C., Huyghebaert, N., Luypaert, M., 2021. Influence of acquirer boards on M&A value creation: evidence from Continental Europe. *J. Int. Financ. Manag. Account.* 32 (1), 21–62.
- Doidge, C., Karolyi, G.A., Stulz, R.M., 2007. Why do countries matter so much for corporate governance? *J. Financ. Econ.* 86 (1), 1–39.
- Drempetic, Samuel, Klein, Christian, Zwergel, Bernhard, 2020. The influence of firm size on the ESG score: corporate sustainability ratings under review. *J. Bus. Ethics* 167 (2), 333–360.
- Eaton, G.W., Liu, T., Officer, M.S., 2021. Rethinking measures of mergers & acquisitions deal premiums. *J. Financ. Quant. Anal.* 56 (3), 1097–1126.
- Eckbo, B.E., 2009. Bidding strategies and takeover premiums: a review. *J. Corp. Finance* 15 (1), 149–178.
- Ellis, J.A., Moeller, S.B., Schlingemann, F.P., Stulz, R.M., 2017. Portable country governance and cross-border acquisitions. *J. Int. Bus. Stud.* 48, 148–173.
- Ertugrul, M., 2015. Bargaining power of targets: takeover defenses and top-tier target advisors. *J. Econ. Bus.* 78, 48–78.
- Faff, R.W., Gunasekarage, A., Shams, S.M., 2020. Does takeover competition affect acquisition choices and bidding firm performance? Australian evidence. *Account. Finance* 60 (4), 3581–3619.
- Freeman, R.E., 1984. *Strategic Management: A Stakeholder Approach*. Pitman.
- Gillan, S.L., Koch, A., Starks, L.T., 2021. Firms and social responsibility: a review of ESG and CSR research in corporate finance. *J. Corp. Finance* 66, 101889.
- Gomes, M., Marsat, S., 2018. Does CSR impact premiums in M&A transactions? *Finance Res. Lett.* 26, 71–80.
- Gordano, S., Bauer, F., King, D.R., 2024. Environmental, social, and governance (ESG) acquisitions: deal structure and outcome. *Bus. Strat. Environ.*
- Halbritter, G., Dorfleitner, G., 2015. The wages of social responsibility—where are they? A critical review of ESG investing. *Rev. Financ. Econ.* 26, 25–35.
- Haleblian, J., Devers, C.E., McNamara, G., Carpenter, M.A., Davison, R.B., 2009. Taking stock of what we know about mergers and acquisitions: A review and research agenda. *J. Manag.* 35 (3), 469–502.
- Harford, J., Humphery-Jenner, M., Powell, R., 2012. The sources of value destruction in acquisitions by entrenched managers. *J. Financ. Econ.* 106 (2), 247–261.
- Hauschild, P.R., 1994. How much is that company worth?: interorganizational relationships, uncertainty, and acquisition premiums. *Adm. Sci. Q.* 391–411.
- Hawn, O., 2021. How media coverage of corporate social responsibility and irresponsibility influences cross-border acquisitions. *Strat. Manag. J.* 42 (1), 58–83.

- Humphery-Jenner, M.L., Powell, R.G., 2011. Firm size, takeover profitability, and the effectiveness of the market for corporate control: does the absence of anti-takeover provisions make a difference? *J. Corp. Finance* 17 (3), 418–437.
- Hussain, T., Loureiro, G., 2022. Portability of firm corporate governance in mergers and acquisitions. *Res. Int. Bus. Finance* 63, 101777.
- Hussain, T., Loureiro, G., 2023. Target industry takeover competition and the wealth effects of mergers and acquisitions: international evidence. *J. Int. Financ. Mark. Inst. Money* 89, 101865.
- Hussain, T., Saeed, A., Riaz, H., 2024b. Reputational risk and target selection: an evidence from China. *Int. J. Finance Econ.* 1–29.
- Hussain, T., Shams, S., 2022. Pre-deal differences in corporate social responsibility and acquisition performance. *Int. Rev. Financ. Anal.* 81, 102083.
- Hussain, T., Tunyi, A.A., Areneke, G., 2024a. Environmental innovation and takeover performance. *Bus. Strat. Environ.* 1–30.
- Hussain, T., Tunyi, A.A., Sufyan, M., Shahab, Y., 2022. Powerful bidders and value creation in M&As. *Int. Rev. Financ. Anal.* 81, 102076.
- Hussain, T., Tunyi, A.A., Agyemang, J., 2023. Corporate governance transfers: the case of mergers and acquisitions. *Int. J. Discl. Gov.* 1–25.
- Hussaini, M., Rigoni, U., Perego, P., 2023. The strategic choice of payment method in takeovers: the role of environmental, social and governance performance. *Bus. Strat. Environ.* 32 (1), 200–219.
- Ilhan, E., Sautner, Z., Vilkov, G., 2021. Carbon tail risk. *Rev. Financ. Stud.* 34 (3), 1540–1571.
- Jandik, T., Makhija, A.K., 2005. Leverage and the complexity of takeovers. *Financ. Rev.* 40 (1), 95–112.
- Jo, H., Harjoto, M.A., 2011. Corporate governance and firm value: the impact of corporate social responsibility. *J. Bus. Ethics* 103, 351–383.
- Jurich, S.N., Walker, M.M., 2021. Deal motivations and bargaining power: do executives show their hand in SEC filings? *SN Business & Economics* 1 (4), 60.
- Kartal, M.T., Taşkın, D., Shahbaz, M., Depren, S.K., Pata, U.K., 2024. Effects of Environment, Social, and Governance (ESG) disclosures on ESG scores: investigating the role of corporate governance for publicly traded Turkish companies. *J. Environ. Manag.* 368, 122205.
- Kelloway, E.K., 1995. Structural equation modelling in perspective. *J. Organ. Behav.* 16 (3), 215–224.
- Krishnamurti, C., Shams, S., Pensiero, D., Velayutham, E., 2019. Socially responsible firms and mergers and acquisitions performance: Australian evidence. *Pac. Basin Finance J.* 57, 101193.
- KPMG, 2022. Delivering on the promise of value creation-2022 market insights report.** <https://kpmg.com/uk/en/home/insights/2022/01/delivering-on-the-promise-of-value-creation>.
- Kubick, T.R., Lynch, D.P., Mayberry, M.A., Omer, T.C., 2015. Product market power and tax avoidance: market leaders, mimicking strategies, and stock returns. *Account. Rev.* 90 (2), 675–702.
- Lang, L.H., Stulz, R., Walkling, R.A., 1991. A test of the free cash flow hypothesis: The case of bidder returns. *J. Financ. Econ.* 29 (2), 315–335.
- Lawrence, E.R., Nguyen, T.D., Upadhyay, A., 2024. Independence of board leadership of acquirers and the success of mergers and acquisitions. *J. Corp. Finance* 86, 102581.
- Lee, K.H., 2018. Cross-border mergers and acquisitions amid political uncertainty: a bargaining perspective. *Strat. Manag. J.* 39 (11), 2992–3005.
- Levi, M., Li, K., Zhang, F., 2014. Director gender and mergers and acquisitions. *J. Corp. Finance* 28, 185–200.
- Li, H., Liu, Y., Xu, B., 2023a. Does target country's climate risk matter in cross-border M&A? The evidence in the presence of geopolitical risk. *J. Environ. Manag.* 344, 118439.
- Li, T., Peng, Q., Yu, L., 2023b. ESG Considerations in Acquisitions and Divestitures: Corporate Responses to Mandatory ESG Disclosure. Available at: SSRN 4376676.
- Liao, Y., Wu, Y., 2024. An analysis of the influence of ESG rating divergence on investor sentiment. *International Journal of Global Economics and Management* 3 (1), 162–177.
- Liu, Y., Taffler, R., John, K., 2009. CEO value destruction in M&A deals and beyond. *Long. Range Plan.* 31 (1), 347–353.
- Lu, J., Li, H., Wang, G., 2023. The impact of green mergers and acquisitions on illegal pollution discharge of heavy polluting firms: mechanism, heterogeneity and spillover effects. *J. Environ. Manag.* 340, 117973.
- Lu, J., Wang, W., 2015. Board independence and corporate investments. *Rev. Financ. Econ.* 24, 52–64.
- Madura, J., Ngo, T., 2008. Clustered synergies in the takeover market. *J. Financ. Res.* 31 (4), 333–356.
- Malik, M., Al Mamun, M., 2024. Impact of target firm's social performance on acquisition premiums. *J. Contemp. Account. Econ.* 20 (2), 100417.
- Martynova, M., Renneboog, L., 2008. A century of corporate takeovers: what have we learned and where do we stand? *J. Bank. Finance* 32 (10), 2148–2177.
- Martynova, M., Renneboog, L., 2010. Spillover of corporate governance standards in cross-border mergers and acquisition. In: *The Law and Economics of Corporate Governance*. Edward Elgar Publishing.
- Masulis, R.W., Wang, C., Xie, F., 2009. Agency problems at dual-class companies. *J. Finance* 64 (4), 1697–1727.
- Maung, M., Wilson, C., Yu, W., 2020. Does reputation risk matter? Evidence from cross-border mergers and acquisitions. *J. Int. Financ. Mark. Inst. Money* 66, 101204.
- Michel, A., Ahlers, O., Hack, A., Kellermanns, F.W., 2020. Who is the king of the hill? On bargaining power in private equity buyouts. *Long. Range Plan.* 53 (2), 101859.
- Moeller, S.B., Schlingemann, F.P., 2004. Are cross-border acquisitions different from domestic acquisitions? Evidence on stock and operating performance for US acquirers. *J. Bank. Finance*.
- Moeller, S.B., Schlingemann, F.P., Stulz, R.M., 2005. Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave. *J. Finance* 60 (2), 757–782.
- Officer, M.S., 2003. Termination fees in mergers and acquisitions. *J. Financ. Econ.* 69 (3), 431–467.
- Ouyang, W., Zhu, P., 2016. An international study of shareholder protection in freeze-out M&A transactions. *Int. Rev. Financ. Anal.* 45, 157–171.
- Pereiro, L.E., 2016. The misvaluation curse in mergers and acquisitions. *J. Corp. Account. Finance* 27 (2), 11–15.
- Qian, Y., Liu, Y., 2024. Improve carbon emission efficiency: what role does the ESG initiatives play? *J. Environ. Manag.* 367, 122016.
- Redor, E., 2016. Board attributes and shareholder wealth in mergers and acquisitions: a survey of the literature. *J. Manag. Govern.* 20, 789–821.
- Renneboog, L., Vansteenkiste, C., 2019. Failure and success in mergers and acquisitions. *J. Corp. Finance* 58, 650–699.
- Rossi, S., Volpin, P.F., 2004. Cross-country determinants of mergers and acquisitions. *J. Financ. Econ.* 74 (2), 277–304.
- Schmidt, B., 2015. Costs and benefits of friendly boards during mergers and acquisitions. *J. Financ. Econ.* 117 (2), 424–447.
- Servaes, H., 1991. Tobin's Q and the gains from takeovers. *J. Finance* 46 (1), 409–419.
- Shahab, Y., Ntim, C.G., Chen, Y., Ullah, F., Li, H.X., Ye, Z., 2020. Chief executive officer attributes, sustainable performance, environmental performance, and environmental reporting: new insights from upper echelons perspective. *Bus. Strat. Environ.* 29 (1), 1–16.
- Shahab, Y., Ntim, C.G., Chengang, Y., Ullah, F., Fosu, S., 2018. Environmental policy, environmental performance, and financial distress in China: do top management team characteristics matter? *Bus. Strat. Environ.* 27 (8), 1635–1652.
- Simonyan, K., 2014. What determines takeover premia: an empirical analysis. *J. Econ. Bus.* 75, 93–125.
- Starks, L.T., Wei, K.D., 2013. Cross-border mergers and differences in corporate governance. *Int. Rev. Finance* 13 (3), 265–297.
- Steffen, W., Rockström, J., Richardson, K., Lenton, T.M., Folke, C., Liverman, D., Summerhayes, C.P., Barnosky, A.D., Cornell, S.E., Crucifix, M., Donges, J.F., 2018. Trajectories of the earth system in the Anthropocene. *Proc. Natl. Acad. Sci. USA* 115 (33), 8252–8259.
- Shams, S., 2021. Competition in the acquisition market and returns to bidders in Australia. *Res. Int. Bus. Finance* 55, 101339.
- Sudarsanam, S., Sorwar, G., 2010. Determinants of takeover premium in cash offers: an option pricing approach. *J. Bus. Finance Account.* 37 (5–6), 687–714.
- Tampakoudis, I., Anagnostopoulou, E., 2020. The effect of mergers and acquisitions on environmental, social and governance performance and market value: evidence from EU acquirers. *Bus. Strat. Environ.* 29 (5), 1865–1875.
- Tenenhaus, M., 2008. Component-based structural equation modelling. *Total Qual. Manag.* 19 (7–8), 871–886.
- Teti, E., Dell'Acqua, A., Bonsi, P., 2022. Detangling the role of environmental, social, and governance factors on M&A performance. *Corp. Soc. Responsib. Environ. Manag.* 29 (5), 1768–1781.
- Teti, E., Dell'Acqua, A., Etrò, L., Volpe, M., 2017. The impact of board independency, CEO duality and CEO fixed compensation on M&A performance. *Corp. Govern.: The international journal of business in society* 17 (5), 947–971.
- Tong, L., Wang, H., Xia, J., 2020. Stakeholder preservation or appropriation? The influence of target CSR on market reactions to acquisition announcements. *Acad. Manag. J.* 63 (5), 1535–1560.
- Upadhyay, A., Zeng, H., 2017. Cash holdings and the bargaining power of R&D-intensive targets. *Rev. Quant. Finance Account.* 49, 885–923.
- Vladimirov, V., 2015. Financing bidders in takeover contests. *J. Financ. Econ.* 117 (3), 534–557.
- Wang, C., Xie, F., 2009. Corporate governance transfer and synergistic gains from mergers and acquisitions. *Rev. Financ. Stud.* 22 (2), 829–858.
- Wu, S.Y.J., Chung, K.H., 2019. Corporate innovation, likelihood to be acquired, and takeover premiums. *J. Bank. Finance* 108, 105634.
- Zhu, B., Wang, Y., 2024. Does social trust affect firms' ESG performance? *Int. Rev. Financ. Anal.* 93, 103153.