Received: 19 July 2024 | Revised: 2 September 2024 | Accepted: 17 September 2024 | Published online: 30 September 2024

RESEARCH ARTICLE

Journal of Comprehensive Business Administration Research
2025, Vol. 2(1) 1–19
DOI: 10.47852/bonviewJCBAR42023877

BON VIEW PUBLISHING

Acquirer ESG, Home Country Policy Enforcement, Country Distance, and Cross-Border Mergers and Acquisitions: Evidence from Chinese Firms

Jianquan Guo[1,*] and Jiao Kou[2]

[1]*Sino-German College, University of Shanghai for Science and Technology, China*

[2]*Business School, University of Shanghai for Science and Technology, China*

Abstract: This paper examines the impact of Environmental, Social, and Governance (ESG) on cross-border mergers and acquisitions (M&A) activities and outcomes from the perspective of emerging economy firms. Using cross-border M&A events of Chinese acquirers between 2009 and 2021 as a sample, we employ logistic regression and multiple linear regression for analysis and conduct robustness tests. The study finds that: (1) Acquirers with lower ESG ratings are more likely to choose other developing countries for M&A, and the home country's policy enforcement significantly positively moderates this relationship; (2) Lower ESG ratings of acquirers have a significant negative impact on their M&A performance, while the country distance between China and the host country does not have a significant moderating effect on this relationship. These results suggest that under strong home country policy enforcement, emerging economy firms are pressured by their home country's ESG ratings to choose host countries with lower ESG requirements for M&A. However, this approach is like "drinking poison to quench thirst"; while selecting an "ESG haven" can temporarily reduce ESG rating pressure, low ESG ratings ultimately result in lower M&A performance.

Keywords: ESG, cross-border M&A, location choice, policy enforcement, country distance

1. Introduction

As global environmental degradation and the frequency of extreme climate events increase, public concern for sustainable development is also growing [1]. In 2004, the United Nations Global Compact first introduced the Environmental, Social, and Governance (ESG) concept, emphasizing that protecting the environment, fulfilling social responsibilities, and enhancing corporate governance capabilities are crucial for achieving sustainable development [2]. With the growing popularity of the ESG concept, scholars have begun to extensively investigate whether and how high ESG ratings bring economic benefits to companies [3, 4]. However, for companies with low ESG ratings, raising ESG standards often requires substantial investment, leading these companies to prefer entering countries that do not emphasize ESG principles, thereby avoiding these costs and obtaining greater profits [5–7].

Research shows that companies with high ESG ratings, supported by national policies, can obtain more favorable interest rates from financial institutions, thereby reducing debt costs [8]. Additionally, high ESG ratings help companies build a good reputation [9], which has allowed these companies to successfully reduce operational risks during the COVID-19 pandemic [10]. High ESG ratings also reflect good corporate governance practices, which help attract top talent and promote innovation, driving long-term development [11]. Conversely, lower ESG ratings may decrease corporate performance and reduce stakeholder engagement [12]. Therefore, understanding the impact of ESG ratings on corporate M&A decisions and performance is of significant importance for corporate competitiveness and sustainable development in the global market.

In recent years, some developing countries have also begun to pay attention to corporate ESG issues. For example, in 2018, the Chinese government required listed companies to disclose ESG information for the first time [13]. Although the government has issued regulations on corporate sustainability, academic opinions vary regarding the effectiveness of these policies in developing countries [14, 15]. For firms in emerging economies, whether ESG ratings become a key factor in their cross-border M&A decisions remains inconclusive. Unlike firms from developed countries, firms from emerging economies face greater uncertainties and challenges in cross-border M&A, such as cultural differences and management adjustments [16]. This study aims to empirically analyze how ESG ratings influence the cross-border M&A decisions and performance of firms in emerging economies, thereby providing valuable insights for policymakers and corporate managers.

Therefore, this paper studies the following two issues based on firms from emerging economies: First, it explores whether firms with low ESG ratings in emerging economies conform to the "pollution haven" hypothesis in cross-border M&A and examines whether

*Corresponding author: Jianquan Guo, Sino-German College, University of Shanghai for Science and Technology, China. Email: jasonguo@usst.edu.cn

the home country's policy enforcement increases the likelihood of these firms choosing other developing countries with less emphasis on ESG concepts as M&A target countries. Second, it studies the impact of corporate ESG ratings on their M&A performance, investigating the moderating effect of country distance on the relationship between acquirer ESG ratings and post-M&A performance. This paper selects 286 cross-border M&A transactions of Chinese-listed companies from 2009 to 2021 as the research sample. We believe these samples are representative and provide experience and advice for other emerging economies for the following reasons: China, as a typical emerging economy, shows high enthusiasm in the international M&A market [17], providing sufficient case data for this study. In recent years, the Chinese government has increasingly emphasized corporate ESG issues and enacted various environmental control measures and policies. However, as an emerging economy, the effectiveness of policy enforcement in China is insufficient [18, 19], providing suitable background information for this study.

This paper aims to make the following contributions: (1) Previous studies, although some scholars focused on issues related to ESG and M&A, mostly considered firms from developed countries as acquirers [1, 9, 20, 21]. Some scholars have indeed studied ESG ratings of firms from emerging economies but mainly focused on the financial field [8, 22, 23]. Therefore, the relationship between M&A-related behaviors and outcomes of firms from emerging economies and ESG has not received sufficient attention. Our research fills this gap and contributes to the literature on corporate M&A and business ethics; (2) our study reveals whether the emphasis on ESG in emerging economies can restrain firms under the condition of considering government policy enforcement. This provides evidence from corporate behavior for the debate on the effectiveness of policies in emerging economies. (3) This paper also has managerial implications. First, we find that with stronger government policy enforcement, the impact of ESG on firms becomes more significant, indicating that emerging economies' governments should emphasize policy enforcement to promote sustainable development. Second, we find that although firms with low ESG ratings tend to acquire in other developing countries (rather than developed countries) to exploit lower ESG awareness in the host country, low ESG ratings negatively impact long-term M&A performance. This may indicate that seeking an "ESG haven" is like "drinking poison to quench thirst"; although it may temporarily avoid ESG rating pressure, from a long-term perspective, as global attention to ESG increases, this approach will ultimately damage the firm's reputation and bring negative impacts.

The rest of this paper is organized as follows: Section 2 reviews the literature and hypotheses, Section 3 presents sample data and models, Section 4 analyzes empirical results, Section 5 provides robustness tests, and Section 6 concludes.

2. Literature Review

2.1. Acquirer ESG, policy enforcement, and location choice

Dunning [24] proposed the Ownership-Location-Internalization paradigm, suggesting that multinational companies choose regions with specific advantages for cross-border M&A to leverage their ownership advantages through internalized transactions. Based on this, scholars have analyzed M&A location choices from the perspectives of resource-seeking, market-seeking, and technology-seeking motivations [25]. With the rapid development of economic globalization, the reasons for corporate cross-border M&A have become more diverse, such as transferring high-pollution production stages to host countries with weaker environmental regulations to reduce operational risks [26].

Some scholars have studied the cross-border M&A decisions of Chinese firms from market-seeking and resource-seeking perspectives [27]. Additionally, some scholars have examined whether state-owned enterprises (SOEs) and private enterprises in China are influenced by politics during cross-border M&A [28]. Other scholars have considered China as a host country, investigating whether high-pollution firms from developed countries view China as a "pollution haven" and choose China for cross-border M&A [1]. It has also been confirmed that firms with lower ESG ratings perform worse than those with higher ESG ratings in terms of social reputation, government relations, and risk response [29, 30]. Therefore, studying whether the ESG ratings of Chinese firms affect their cross-border M&A decisions is crucial, especially for firms with low ESG ratings, to understand how they mitigate the M&A risk associated with lower ratings.

China actively explores sustainable development goals, and its ESG-related policies may be ahead of other developing countries [31]. For example, in 2015, the Chinese government implemented the "New Environmental Protection Law" to restrict emissions from high-pollution firms through mandatory measures. In terms of corporate governance, the "Company Law" enacted in 2005 requires companies to consider stakeholder interests in their business activities [32]. However, without strong government enforcement mechanisms, even well-designed policies may not achieve their intended effects [33]. This is especially true when firms with low ESG ratings are in countries with strict policies but insufficient enforcement, as they may face lower penalties. Therefore, the effectiveness of policies and governance is also crucial.

Based on this, we propose the following hypothesis:

Hypothesis 1: Chinese acquirers with lower ESG ratings are more likely to choose other developing countries as target countries, and stronger home country policy enforcement will strengthen this relationship.

2.2. Acquirer ESG, country distance, and M&A performance

Zheng et al. [34] confirmed that companies practicing social responsibility benefit from better relationships with stakeholders, including suppliers, employers, the general public, customers, government departments, and even the natural environment. Practicing social responsibility can win stakeholder trust, thereby achieving higher financial returns [34]. Deng et al. [20] studied samples of U.S. M&A transactions and found that companies with high corporate social responsibility experienced shorter integration times, lower failure rates, and better long-term performance. ESG, which considers corporate social responsibility and governance comprehensively, is a further development and improvement of the corporate social responsibility concept [8]. Zhou and Zhou [35] demonstrated that ESG brought excess returns to Chinese A-share companies from the perspective of M&A performance. Caiazza et al. [36] found that companies with high ESG ratings performed better in resisting financial crisis risks and received positive returns during market shocks by building trust with stakeholders through ESG investments.

Previous scholars have mostly examined the roles of cultural distance (CD) [37], geographical distance (GD) [38], and economic distance (ED) [39] in cross-border M&A from the

perspectives of M&A integration and location choice. This paper analyzes the moderating effect of country distance (cultural, geographical, and economic distance) on the relationship between acquirer ESG ratings and post-M&A performance to explore whether country distance still significantly affects M&A performance in the era of rapid ESG development.

Hofstede [40] defined culture as the collective programming of the mind that distinguishes members of one group from another. He identified six cultural value dimensions and proposed that CD is the degree of difference between the cultures of the host country and the home country. Some scholars confirmed that CD increases operational risks, raises the time cost of understanding and learning the host country's market, and that cross-cultural conflicts caused by cultural differences are one of the main factors leading to cross-border M&A failures [41]. Language barriers can make it difficult for acquirers to communicate with local personnel and obtain sufficient, high-quality information for decision-making, weakening the positive impact of ESG ratings on M&A performance [42, 43]. Therefore, we hypothesize that the greater the CD between the two countries, the more negatively it moderates the relationship between acquirer ESG ratings and M&A performance.

GD refers to the physical distance between the home country and the host country. Greater GDs can increase information asymmetry levels in M&A activities, potentially leading to higher M&A premiums in the early stages and making firms more likely to choose full acquisitions, thereby increasing M&A risks [44]. Scholars have confirmed that greater GD weakens the positive relationship between parent company ownership proportion and subsidiary performance [45]. Therefore, we hypothesize that the greater the GD between two countries, the more negatively it moderates the relationship between acquirer ESG ratings and M&A performance.

In M&A activities, ED mainly refers to the gap in economic development levels between the home country and the host country. Greater EDs can lead to higher management costs and increased M&A risk [46]. Additionally, it may hinder acquirers from replicating their business models in the host country, making it difficult to quickly conduct business in the host country [44]. Therefore, we hypothesize that the greater the ED between two countries, the more negatively it moderates the relationship between acquirer ESG ratings and M&A performance.

Based on this, we propose the following hypothesis:

Hypothesis 2: Higher acquirer ESG ratings lead to better post-M&A performance, with cultural, geographical, and EDs negatively moderating this relationship.

3. Methodology

3.1. Variables

3.1.1. Measurement of acquirer ESG scores

This paper uses the Hua zheng ESG rating indicators to measure the ESG performance of acquirers, as per the method by Wang et al. [47]. Compared to other ESG evaluation systems, the Hua zheng ESG rating system combines the evaluation methods of authoritative foreign institutions with the characteristics of the Chinese capital market, covering a broader scope and providing more timely data. The system includes 16 themes, 44 key indicators, and over 300 underlying data indicators. We assign values to Hua zheng ESG's C∼AAA 9 levels, with C as 1, CC as 2, CCC as 3; B as 4, BB as 5, BBB as 6; A as 7, AA as 8, and AAA as 9. Additionally, we classify firms with ESG scores below 5 as low ESG acquirers.

3.1.2. Measurement of dependent variables

This paper first studies whether low ESG rating acquirers are more likely to choose other developing countries for cross-border M&A, using the binary variable L_M&A to represent this. If the host country is a developing country, it is assigned 1; otherwise, it is 0.

In Hypothesis 2, following Zheng et al. [34], we use the one-year buy-and-hold abnormal returns (BHARs) after the M&A to represent post-M&A performance (BHAR_1year). BHARs essentially represent the excess return that an investor would earn if they purchased the acquiring company's stock in the month of acquisition and held it for a period of time, relative to the market benchmark. We use a value-weighted market index as the benchmark market portfolio and calculate BHAR as follows [34], with the calculation method as follows:

$$\mathrm{BHAR}_s = \prod_{t=0}^{s+T}(1+\mathrm{R}_{i,t}) - \prod_{t=0}^{s+T}(1+\mathrm{R}_{m,t}) \tag{1}$$

where i, t, and T represent the acquirer index, the month of the transaction announcement, and the holding period, respectively. Ri, t is the simple return of acquirer i, and Rm, t is the return of the market portfolio. The event window is 12 months after the M & A announcement.

3.1.3. Moderating variables

In Hypothesis 1, this paper uses the Government Efficiency: Estimate from the Worldwide Governance Indicators to proxy home country policy enforcement.

In Hypothesis 2, we study the impact of country distance as a moderating variable on the relationship between acquirer ESG ratings and M&A performance. We use CD, ED, and GD to represent country distance.

We calculate the CD between China and the host country using the latest six-dimension indicators from the Hofstede Cultural Dimensions website: individualism, collectivism, masculinity, femininity, long-term orientation, indulgence, and restraint. Referring to Guo et al. [44], the calculation formula is:

$$\mathrm{CD}_h = \left[\sum_{i=1}^{6}\left(\mathrm{I}_{ih} - \mathrm{I}_{h,\mathrm{Chian}}\right)^2/\mathrm{V}_i\right]/6 \tag{2}$$

where CDh is the CD value between country h and China, Iih is the cultural indicator of dimension i for country h, Ii, China is the cultural indicator of dimension i for China, and Vi is the variance of the cultural indicator for dimension i.

We use the natural logarithm of the straight-line distance between the capitals of the two countries to represent GD, with data from the CEPII database. For ED, we use the GDP ratio between the host country and China in the M & A year, with data from the WDI database.

3.1.4. Control variables

This paper follows Guo and Cheng [1] as well as Zheng et al. [34] in considering control factors in the study of cross-border M&A and the relationship between corporate ESG and cross-border M&A. We also select additional variables for control. All variables are listed in Appendix Table A1.

3.2. Sample selection and descriptive statistics

3.2.1. Sample selection

We selected cross-border M&A events of Chinese firms from 2009 to 2021 as the initial sample and screened them based on the following criteria: the acquirer is a Chinese firm listed on the Shanghai Stock Exchange or Shenzhen Stock Exchange; the M&A transaction is completed; financial industry samples are excluded; ST (Special Treatment) and *ST samples are excluded; samples with post-acquisition ownership below 10% are excluded; and samples with missing data are excluded. After these steps, 286 M&A events were selected. Correlation analysis of the independent variables showed that the correlation coefficients between variables were all below 0.5. Further examination of the variance inflation factors (VIF) for each model showed maximum VIF values below the critical value of 10, indicating no serious multicollinearity issues. Correlation analysis can be found in Appendix Tables A2 and A3.

The cross-border M&A transaction data come from the BvD_Zephyr database; the corporate ESG data comes from the Hua zheng Index; and corporate characteristics and stock data come from the CSMAR database.

3.2.2. Descriptive statistics

We divided the sample into industry and ESG panels, with the manufacturing industry having the most M&A events. Most Chinese acquirers had ESG ratings of B and BB, with no AAA and CCC acquirers. This indicates that Chinese firms still need to further practice social responsibility to improve their ESG ratings (see Appendix Table A4).

The descriptive statistics of acquirer ESG ratings show that the median ESG rating of the entire acquisition sample is 4. Therefore, we define acquirers with ratings equal to or above 5 as high ESG acquirers and those below 5 as low ESG acquirers (see Appendix Table A5).

We conducted descriptive statistics (mean and median) on the sample of low ESG acquirers (L_ESG) and their cross-border M&A location choices, as well as on samples classified by the economic development level of the host country (developing and developed economies). However, the differences were not significant (see Appendix Table A6).

3.3. Methods

3.3.1. Acquirer ESG, policy enforcement, and location choice

In Hypothesis 1, we use a logistic regression model to examine the location choices of Chinese acquirers with low ESG ratings (L_ESG) in cross-border M&A and the moderating effect of home country policy enforcement (RE).

First, we construct a model containing only control variables Model (1):

$$\text{Prob}\left(\text{L\_M\&A}_{i,t}=1\right)=\alpha_1+\sum\alpha_i\,\text{Controls}_{i,t}+\sum\alpha_i\,\text{Year}_{i,t}+\sum\alpha_i\,\text{Industry}_{i,t}+\varepsilon_1 \tag{3}$$

Second, to study the impact of acquirer ESG on cross-border M&A location choice, we generate Model (2):

$$\text{Prob}\left(\text{L\_M\&A}_{i,t}=1\right)=\alpha_1+\alpha_2\text{L}_{\text{ESG}_{i,t-1}}+\sum\alpha_i\,\text{Controls}_{i,t}+\sum\alpha_i\,\text{Year}_{i,t}+\sum\alpha_i\,\text{Industry}_{i,t}+\varepsilon_1 \tag{4}$$

Third, to include the moderating effect of home country policy enforcement, we generate Model (3):

$$\text{Prob}\left(\text{L\_M\&A}_{i,t}=1\right)=\alpha_1+\alpha_2\,\text{L}_{\text{ESG}_{i,t-1}}+\alpha_3\,\text{RE}_{i,t-1}+\alpha_4\,\text{L}_{\text{ESG}_{i,t-1}}\times\text{RE}_{i,t-1}+\sum\alpha_i\,\text{Controls}_{i,t}+\sum\alpha_i\,\text{Year}_{i,t}+\sum\alpha_i\,\text{Industry}_{i,t}+\varepsilon_1 \tag{5}$$

In these models, the dependent variable $\text{L\_M\&A}_{i,t}$ represents whether acquirer i in year t chooses to complete a cross-border M&A transaction in a developing country (1 if yes, 0 otherwise). $\text{L\_ESG}_{i,t-1}$ is the ESG score of acquirer i in year t−1; $\text{RE}_{i,t-1}$ represents the home country policy enforcement in year t−1. Controls are control variables, Year is the announcement year of the M&A transaction, Industry is the industry of transaction i in year t, α_1 is the intercept term, $\alpha_2, \alpha_3, \alpha_4$ are regression coefficients, and ε_1 is the random error term.

3.3.2. Acquirer ESG, country distance, and M&A performance

In Hypothesis 2, we use multiple linear regression to test the impact of Chinese acquirer ESG scores (ESG) on cross-border M&A performance and examine the moderating effects of GD, CD, and ED.

First, we construct a model containing only control variables Model (4):

$$\text{BHAR\_1 year}_{i,t}=\beta_1+\sum\beta_i\,\text{Controls}_{i,t-1}+\sum\beta_i\,\text{Year}+\sum\beta_i\,\text{Industry}_{i,t}+\varepsilon_2 \tag{6}$$

Second, we construct Model (5) to examine the impact of acquirer ESG on cross-border M&A performance:

$$\text{BHAR\_1 year}_{i,t}=\beta_1+\beta_2\,\text{ESG}+\sum\beta_i\,\text{Controls}_{j,t-1}+\sum\beta_i\,\text{Year}+\sum\beta_i\,\text{Industry}_{i,t}+\varepsilon_2 \tag{7}$$

Third, we include GD, CD, and ED as moderating variables, generating Models (6), (7), and (8):

$$\text{BHAR\_1 year}_{i,t+1}=\beta_1+\beta_2\,\text{ESG}_{i,t-1}+\beta_3\,\text{GD}+\beta_4\,\text{ESG}_{i,t-1}\times\text{GD}+\sum\beta_i\,\text{Controls}_{j,t-1}+\sum\beta_i\,\text{Year}+\sum\beta_i\,\text{Industry}_{i,t}+\varepsilon_2 \tag{8}$$

$$\text{BHAR\_1 year}_{i,t+1}=\beta_1+\beta_2\,\text{ESG}_{i,t-1}+\beta_3\,\text{CD}_j+\beta_4\,\text{ESG}_{i,t-1}\times\text{CD}_j+\sum\beta_i\,\text{Controls}_{j,t-1}+\sum\beta_i\,\text{Year}+\sum\beta_i\,\text{Industry}_{i,t}+\varepsilon_2 \tag{9}$$

$$\text{BHAR\_1 year}_{i,t+1}=\beta_1+\beta_2\,\text{ESG}_{i,t-1}+\beta_3\,\text{ED}_{nj}+\beta_4\,\text{ESG}_{i,t-1}\times\text{ED}_{nj}+\sum\beta_i\,\text{Controls}_{j,t-1}+\sum\beta_i\,\text{Year}+\sum\beta_i\,\text{Industry}_{i,t}+\varepsilon_2 \tag{10}$$

Finally, to test the robustness of the results, we construct Model (9) containing all control and moderating variables:

$$\begin{aligned}\text{BHAR\_1 year}_{i,t+1} = {} & \beta_1 + \beta_2\,\text{ESG}_{i,t-1} + \beta_3\,\text{GD} + \beta_4\,\text{ESG}_{i,t-1} \times \text{GD} \\ & + \beta_5\,\text{CD}_j + \beta_6\,\text{ESG}_{i,t-1} \times \text{CD}_j + \beta_7\,\text{ED}_{nj} \\ & + \beta_8\,\text{ESG}_{i,t-1} \times \text{ED}_{nj} + \sum \beta_i\,\text{Controls}_{j,t-1} \\ & + \sum \beta_i\,\text{Year} + \sum \beta_i\,\text{Industry}_{i,t} + \varepsilon_2 \end{aligned} \tag{11}$$

In these models, i represents the acquirer firm, and t represents the transaction announcement year. $\text{BHAR\_1year}_{i,t+1}$ represents post-M&A performance, indicating the acquirer firm's BHARs for the following year. The main independent variable is the acquirer ESG score at the end of year t−1. $\text{GD}_{i,t}$ represents the straight-line distance between the capitals of China and the host country, CD_j represents the CD between country j and China, and ED_{nj} represents the ED between home country n and host country j. Controls are control variables, Year is the announcement year of the M&A transaction, Industry is the industry of the target firm in year t, β_1 is the intercept term, $\beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$ are regression coefficients, and ε_2 is the random error term.

4. Regression Result Analysis

4.1. Acquirer ESG, policy enforcement, and M&A location choice

Table 1 presents the logistic regression results. Model (1) includes the regression results using only control variables, Model (2) tests Hypothesis 1, and Model (3) tests all variables. In Models (2) and (3), the coefficients of the acquirer ESG rating (L_ESG) are negative and statistically significant at $p < 0.1$. We find that each unit increase in the acquirer ESG rating (L_ESG) decreases the likelihood of acquiring in other developing countries. This indicates that the lower the acquirer ESG rating, the more likely they are to conduct cross-border M&A in other developing countries. Model (3) tests the moderating effect of home country policy enforcement (RE) on the relationship between the acquirer ESG rating and cross-border M&A location choice. The results show that the coefficient of RE is negative and statistically significant at $p < 0.1$.

Therefore, Hypothesis 1 is supported, consistent with the findings of Huang et al. [4] and He et al. [29]. That is, the lower the ESG rating of low ESG acquirers, the more likely they are to choose other developing countries for cross-border M&A, and stronger home country policy enforcement strengthens this likelihood.

Table 1
Logistic regression analysis on acquirer ESG, policy enforcement, and location selection

Variable	Model 1	Model 2	Model 3
L_ESG		−0.9165***	−20.2466***
		(2.7499)	(6.9121)
L_ESG*RE			−4.4163***
			(−6.7437)
RE			17.8627***
			(6.4232)
CASH	0.0403	0.0858	−0.0533
	(0.1898)	(0.4036)	(−0.3383)
ACR	−0.0237	−0.1175	0.0490
	(−0.1198)	(−0.6168)	(0.4349)
BookValue	0.1544	0.1656	0.1232*
	(1.2752)	(1.3661)	(1.9578)
GRO	−0.0218**	−0.0268**	−0.0115*
	(−2.0541)	(−2.4553)	(−1.7614)
Acquiredstake	0.1118	0.0807	−0.0045
	(1.5468)	(1.1283)	(−0.0990)
PAY	0.0114	0.0078	0.0327
	(0.2400)	(0.1636)	(1.1829)
ROA	−1.0697	−2.1157	−0.7098
	(−0.7347)	(−1.4520)	(−0.8335)
GD	−0.1736***	−0.1551***	−0.0480
	(−2.9111)	(−2.7082)	(−1.3966)
AGE	0.0023	0.0012	0.0058*
	(0.4071)	(0.2291)	(1.6813)
CC	−0.0162	−0.0515	0.0050
	(−0.2686)	(−0.8152)	(0.1452)
Size	0.0616**	0.0533*	−0.0026
	(2.1468)	(1.8974)	(−0.1938)
_cons	0.2477	−3.3655*	−81.6385***
	(0.2552)	(−1.9442)	(−6.5153)
Year Dummy	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes
N	144	144	144
r2_a	0.1791	0.2125	0.7660

Note: t-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

4.2. Acquirer ESG, country distance, and M&A performance

Table 2 presents the multiple regression results. Model (4) includes the regression results using only control variables, while Models (5) to (9) test Hypothesis 2. Model (9) tests all variables. In Models (5) to (9), the coefficients of the acquirer ESG rating (ESG) are positive and statistically significant at $p < 0.1$. Based on Model (5), we find that the acquirer ESG rating (ESG) is positively and significantly related to post-M&A performance (BHAR_1year). This indicates that higher acquirer ESG ratings lead to better post-M&A performance. Models (7) to (9) test the moderating effects of GD, CD, and ED on the relationship between acquirer ESG ratings and cross-border M&A performance. The results show that GD, CD, and ED do not have significant moderating effects.

Therefore, Hypothesis 2 is partially supported, indicating that higher acquirer ESG ratings lead to better post-M&A performance, but cultural, geographical, and EDs do not significantly affect this relationship. We provide the following explanations for these results:

First, the proliferation of social media and the development of short videos have brought countries closer together [48], allowing people to quickly understand a country's customs and cultural taboos through visual content, reducing the negative impact of CD on cross-border M&A [41].

Second, cultural diversity can provide learning opportunities for acquirers, promote management model updates, and foster

Table 2
Multiple regression results on acquirer ESG, country distance, and M&A performance

Variable	*Mode 4*	*Mode 5*	*Model 6*	*Model 7*	*Model 8*	*Model 9*
ESG		0.0636**	0.1133**	0.0553**	0.0477**	0.0730*
		(2.0126)	(2.0516)	(2.3114)	(2.1171)	(1.7150)
GD			4.2400			5.2029
			(0.8765)			(0.8914)
*ESG*GD*			−0.9526			−1.1827
			(−0.8555)			(−0.8794)
CD				−1.0643		−5.0866
				(−0.1575)		(−0.6299)
*ESG*CD*				0.2993		1.2215
				(0.1906)		(0.6522)
ED					−1.0003	−0.0679
					(−0.1398)	(−0.0089)
ESGED					0.2457	0.0196
					(0.1459)	(0.0109)
CASH	−0.1994	−0.2442	−0.2864	−0.2523	−0.2003	−0.2847
	(−0.2385)	(−0.2904)	(−0.3345)	(−0.3004)	(−0.2491)	(−0.3505)
ACR	0.1349	0.0953	0.1035	0.1067	0.0675	0.1207
	(0.2200)	(0.1570)	(0.1627)	(0.1762)	(0.1125)	(0.1930)
Acquiredstake	0.0694	0.0612	0.0096	0.0739	0.0419	0.0390
	(0.3399)	(0.2966)	(0.0492)	(0.3589)	(0.1822)	(0.1738)
BIND	−0.4390	−0.5083	−0.5118	−0.4434	−0.4603	−0.5081
	(−0.3698)	(−0.4287)	(−0.4215)	(−0.3694)	(−0.3895)	(−0.4187)
AGE	−0.2814	−0.2964	−0.2961	−0.2729	−0.2908	−0.2739
	(−1.1264)	(−1.1883)	(−1.2109)	(−1.0952)	(−1.1344)	(−1.0953)
SOE	−0.0793	−0.1045	−0.1128	−0.0837	−0.0899	−0.0968
	(−0.4206)	(−0.5491)	(−0.5886)	(−0.4377)	(−0.4373)	(−0.4689)
GRO	0.0384	0.0368	0.0298	0.0217	0.0365	0.0213
	(0.9108)	(0.8661)	(0.6618)	(0.4631)	(0.8712)	(0.4454)
PAY	0.0053	0.0021	−0.0104	0.0102	0.0096	0.0128
	(0.0311)	(0.0121)	(−0.0602)	(0.0581)	(0.0525)	(0.0683)
bookvalue12	−0.0115	−0.0036	0.0299	0.0099	−0.0081	0.0372
	(−0.0409)	(−0.0129)	(0.1096)	(0.0355)	(−0.0284)	(0.1316)
A_LAW	−0.1446	−0.1635	−0.1265	−0.0410	−0.1453	−0.0314
	(−0.9293)	(−1.0201)	(−0.8296)	(−0.2436)	(−0.8037)	(−0.1753)
TonbinQ	0.0850	0.0768	0.0723	0.0812	0.0745	0.0756
	(1.2911)	(1.1633)	(1.0439)	(1.1972)	(1.0562)	(1.0017)
CC	−0.0809	−0.1149	−0.1433	−0.1234	−0.1222	−0.1511
	(−0.4079)	(−0.5751)	(−0.7180)	(−0.6192)	(−0.6139)	(−0.7576)
Size	−0.0195	−0.0294	−0.0284	−0.0217	−0.0248	−0.0213
	(−0.2459)	(−0.3623)	(−0.3470)	(−0.2656)	(−0.3225)	(−0.2728)
_cons	1.1597	−1.8308	−40.2584	1.0376	−1.6126	−34.2957
	(0.5332)	(−0.4369)	(−0.9522)	(0.0554)	(−0.3548)	(−0.7780)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
N	241	241	241	241	241	241
r2_a	0.0569	0.0596	0.0637	0.0635	0.0719	0.0841

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

technological innovation [49, 50], thereby diminishing the negative impact of CD on the relationship between acquirer ESG ratings and M&A performance.

Third, long-distance M&A activities can diversify economic, institutional, and natural risks to some extent [51], reducing the negative impact of GD.

Fourth, some scholars have proven that choosing distant host countries for M&A activities can enhance acquirers' innovation capabilities [52], but this takes time. Therefore, firms may focus more on fostering innovation capabilities for sustainable development during M&A, mitigating the negative impact of GD.

Fifth, with the development of science and technology, China's economic ties with various countries have become closer, weakening the negative impact of ED on M&A performance [53].

Sixth, some host countries may introduce favorable policies to attract high ESG rating acquirers for investment, reducing post-M&A operational costs to a certain extent [54, 55], thereby mitigating the negative impact of ED.

Table 3
Robustness test of alternative measurement

Variable	Model 1	Model 2	Model 3
L_ESG		−0.0386**	−0.0366***
		(2.4491)	(3.1103)
L_ESG*RE			−0.0398**
			(2.0712)
RE			−1.0979***
			(−4.1030)
CASH	0.0657	0.0729	−0.0530
	(0.3118)	(0.3494)	(−0.3567)
ACR	−0.0145	−0.0997	−0.0120
	(−0.0736)	(−0.5214)	(−0.0940)
BookValue	0.1369	0.1606	0.1329**
	(1.1178)	(1.3330)	(2.0030)
GRO	−0.0243**	−0.0268**	−0.0112
	(−2.1006)	(−2.4209)	(−1.5833)
Acquiredstake	0.1199	0.0899	0.0365
	(1.6461)	(1.2316)	(0.6139)
PAY	0.0193	0.0128	0.0059
	(0.4100)	(0.2717)	(0.1847)
ROA	−0.8020	−1.8297	−1.0908
	(−0.5201)	(−1.2240)	(−1.0029)
GD	−0.1709***	−0.1580***	−0.0623*
	(−2.8666)	(−2.7555)	(−1.7528)
AGE	0.0021	0.0021	0.0073*
	(0.3737)	(0.3718)	(1.7648)
SOE	0.0764		
	(0.9590)		
CC	−0.0024	−0.0288	−0.0255
	(−0.0369)	(−0.4645)	(−0.5286)
Size	0.0538*	0.0571**	0.0075
	(1.7478)	(2.0694)	(0.5307)
_cons	0.3198	0.1742	4.3903***
	(0.3284)	(0.1823)	(4.7523)
Year Dummy	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes
N	144	144	144
r2_a	0.1805	0.2024	0.6700

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

5. Robustness Tests

5.1. Alternative measurement

In Hypothesis 1, we reference Zheng et al. [34] and establish an alternative ESG rating (ESG2) method, assigning C as 1, CC as 2, CCC as 3; B as 5, BB as 6, BBB as 7; A as 9, AA as 10, and AAA as 11. In Hypothesis 1, we also include whether the firm is SOE as a control variable. Table 3 presents the robustness test results. The significance of relevant variables remains largely unchanged, indicating that our results are robust.

5.2. Alternative variables

For Hypothesis 2, we adopt the alternative ESG rating (ESG2) method used in Hypothesis 1 and refer to Caiazza et al. [36] by including return on assets and return on equity for the year following the M&A as dependent variables to measure the relationship between acquirer ESG (ESG) and M&A performance. Tables 4, 5, and 6 show the robustness test results, indicating that higher acquirer ESG scores lead to better post-M&A performance, confirming the robustness of our findings.

5.3. Endogeneity test

This study uses the two-stage least squares (2SLS) method to examine endogeneity issues [56]. We use Mean1 and Mean2 as instrumental variables, which are the industry average ESG score for the same year and the average ESG score of other companies in the same industry and city for the same year, respectively. Financial industry and STPT samples were excluded, and the data was sourced from Huazheng. Tables 7 and 8 show the results using different instrumental variables, and the results demonstrate that the instrumental variables are effective.

Table 4
Robustness test of alternative variables (BHARs)

Variable	Mode 4	Mode 5	Model 6	Model 7	Model 8	Model 9
ESG2		0.0274*	0.1138*	0.1164*	0.0450*	0.1156*
		(0.4212)	(1.0807)	(1.1431)	(0.6078)	(1.0677)
GD			−1.1601			0.3272
			(−1.4237)			(0.1177)
ESG2*GD			0.2979			−0.0548
			(1.4670)			(−0.0856)
CD				−3.5235		−4.5372
				(−1.4864)		(−0.5788)
ESG2*CD				0.8743		1.1017
				(1.5485)		(0.6063)
ED					−6.0344	0.3749
					(−0.8294)	(0.0515)
ESG2*ED					1.4196	−0.0878
					(0.8329)	(−0.0512)
CASH	−0.1994	−0.1778	−0.1962	−0.2437	−0.1259	−0.2247
	(−0.2385)	(−0.2064)	(−0.2323)	(−0.2922)	(−0.1518)	(−0.2805)
ACR	0.1349	0.1546	−0.0019	0.0963	0.0932	0.0433
	(0.2200)	(0.2565)	(−0.0029)	(0.1562)	(0.1538)	(0.0689)
Acquiredstake	0.0694	0.0761	0.0479	0.0988	0.0535	0.0806
	(0.3399)	(0.3602)	(0.2346)	(0.4581)	(0.2283)	(0.3469)
BIND	−0.4390	−0.4354	−0.5954	−0.5932	−0.4137	−0.5989
	(−0.3698)	(−0.3645)	(−0.4754)	(−0.4733)	(−0.3446)	(−0.4741)
AGE	−0.2814	−0.2800	−0.2985	−0.2905	−0.2704	−0.2803
	(−1.1264)	(−1.1264)	(−1.2147)	(−1.1665)	(−1.0692)	(−1.1086)
SOE	−0.0793	−0.0720	−0.1211	−0.1048	−0.0624	−0.1088
	(−0.4206)	(−0.3886)	(−0.6058)	(−0.5258)	(−0.3062)	(−0.4998)
GRO	0.0384	0.0407	0.0375	0.0282	0.0426	0.0267
	(0.9108)	(0.9964)	(0.8801)	(0.6359)	(1.0714)	(0.5871)
PAY	0.0053	0.0119	0.0179	0.0400	0.0197	0.0372
	(0.0311)	(0.0710)	(0.1070)	(0.2426)	(0.1109)	(0.2085)
bookvalue	−0.0115	−0.0139	0.0294	0.0199	0.0032	0.0387
	(−0.0409)	(−0.0486)	(0.1070)	(0.0715)	(0.0111)	(0.1354)
A_LAW	−0.1446	−0.1338	−0.1252	−0.0242	−0.1165	−0.0193
	(−0.9293)	(−0.8795)	(−0.8290)	(−0.1449)	(−0.6813)	(−0.1091)
TonbinQ	0.0850	0.0869	0.0745	0.0746	0.0855	0.0771
	(1.2911)	(1.3290)	(1.1227)	(1.1610)	(1.2363)	(1.0785)
CC	−0.0809	−0.0727	−0.1779	−0.1636	−0.1091	−0.1829
	(−0.4079)	(−0.3677)	(−0.8545)	(−0.7951)	(−0.5497)	(−0.8859)
Size	−0.0195	−0.0124	−0.0151	−0.0105	−0.0005	−0.0093
	(−0.2459)	(−0.1448)	(−0.1775)	(−0.1229)	(−0.0062)	(−0.1149)
_cons	1.1597	1.0735	1.2371	1.4043	1.0659	0.7474
	(0.5332)	(0.4918)	(0.4831)	(0.5960)	(0.4962)	(0.2886)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
N	241	241	241	241	241	241
r2_a	0.0569	0.0615	0.0525	0.0475	0.0701	0.0710

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

6. Conclusion

Based on a sample of 286 M&A events completed by Chinese acquirers from 2009 to 2021, we found the following: (1) Chinese acquirers with lower ESG ratings are more likely to choose other developing countries as host countries for cross-border M&A, and this likelihood increases with stronger enforcement of Chinese government policies. (2) Higher ESG ratings of Chinese acquirers are associated with better post-M&A performance, but country distance does not significantly affect this relationship.

6.1. Theoretical contributions

The theoretical contributions of this paper are as follows:

1) First, while previous scholars have primarily focused on the relationship between ESG and cross-border M&A performance in developed countries [4] or studied the impact of ESG rating changes on M&A performance within China [34], few have examined the relationship between the ESG ratings of Chinese firms and their cross-border M&A activities.

Table 5
Robustness test of alternative variables (ROA)

Variable	Mode 4	Mode 5	Model 6	Model 7	Model 8	Model 9
ESG2		0.0091***	0.0072*	0.0071*	0.0086***	0.0071*
		(3.8678)	(1.8016)	(1.8371)	(3.0572)	(1.7758)
GD			−0.0268			−0.0142
			(−0.6356)			(−0.0983)
ESG2*GD			0.0056			0.0024
			(0.5715)			(0.0721)
CD				−0.0804		−0.0235
				(−0.6152)		(−0.0498)
ESG2*CD				0.0191		0.0061
				(0.6385)		(0.0555)
ED					−0.1797	−0.1196
					(−0.6791)	(−0.3870)
ESG*ED					0.0428	0.0288
					(0.6954)	(0.3995)
CASH	0.0675	0.0603	0.0587	0.0591	0.0635	0.0616
	(1.4495)	(1.3557)	(1.3024)	(1.3152)	(1.3555)	(1.3002)
ACR	0.0123	0.0058	0.0056	0.0042	0.0030	0.0044
	(0.4362)	(0.2221)	(0.2105)	(0.1614)	(0.1100)	(0.1563)
Acquiredstake	0.0132	0.0110	0.0117	0.0114	0.0096	0.0107
	(1.2958)	(1.1029)	(1.1782)	(1.1561)	(0.9605)	(1.0607)
BIND	−0.0076	−0.0088	−0.0135	−0.0134	−0.0063	−0.0096
	(−0.1116)	(−0.1361)	(−0.1982)	(−0.1926)	(−0.0940)	(−0.1335)
AGE	0.0154	0.0150	0.0138	0.0145	0.0154	0.0144
	(0.7729)	(0.7702)	(0.6779)	(0.7064)	(0.7842)	(0.6942)
SOE	0.0050	0.0026	0.0015	0.0016	0.0035	0.0028
	(0.5825)	(0.3195)	(0.1747)	(0.1860)	(0.4065)	(0.3167)
GRO	−0.0028	−0.0035	−0.0033	−0.0036	−0.0035	−0.0035
	(−1.1472)	(−1.4890)	(−1.3703)	(−1.3029)	(−1.4285)	(−1.2551)
PAY	0.0044	0.0022	0.0027	0.0028	0.0028	0.0034
	(0.5617)	(0.2972)	(0.3597)	(0.3779)	(0.3489)	(0.4111)
bookvalue	−0.0027	−0.0019	−0.0021	−0.0013	−0.0017	−0.0024
	(−0.1821)	(−0.1377)	(−0.1581)	(−0.0975)	(−0.1240)	(−0.1713)
A_LAW	0.0006	−0.0029	−0.0041	−0.0023	−0.0017	−0.0016
	(0.0850)	(−0.3966)	(−0.5738)	(−0.2965)	(−0.2073)	(−0.1837)
TonbinQ	0.0206***	0.0200***	0.0195***	0.0197***	0.0198***	0.0194***
	(5.9328)	(5.9396)	(5.7463)	(5.8971)	(5.6725)	(5.4343)
CC	0.0132	0.0105	0.0094	0.0086	0.0092	0.0089
	(1.0473)	(0.8780)	(0.6870)	(0.6222)	(0.7262)	(0.6335)
Size	0.0043	0.0020	0.0018	0.0019	0.0024	0.0022
	(1.2858)	(0.6106)	(0.5294)	(0.5757)	(0.7322)	(0.6268)
_cons	−0.2137	−0.1852	−0.1336	−0.1648	−0.1881	−0.1421
	(−1.3695)	(−1.2266)	(−0.6930)	(−0.8488)	(−1.2087)	(−0.7157)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
N	241	241	241	241	241	241
r2_a	0.3581	0.4088	0.4045	0.4041	0.4033	0.3913

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

2) Second, we investigated how ESG ratings influence the location choices of Chinese firms in cross-border M&As, using the enforcement of home country (China) policies as a moderating variable to examine its impact on acquirers' location choices. Our findings confirm that Chinese acquirers with lower ESG ratings are more inclined to choose other developing countries for cross-border M&A, and stronger policy enforcement by the Chinese government enhances this likelihood. Our research fills a gap in the field of ESG and cross-border M&A location choices.
3) Finally, we explored whether country distance (cultural, economic, and GD) negatively moderates the relationship between acquirer ESG ratings and post-M&A performance. The results show that country distance does not significantly

Table 6
Robustness test of alternative variables (ROE)

Variable	Mode 4	Mode 5	Model 6	Model 7	Model 8	Model 9
ESG2		0.0212***	0.0023**	0.0005**	0.0232**	0.0016**
		(2.9954)	(2.1669)	(2.0384)	(2.4926)	(2.1122)
GD			−0.3340			−0.5247
			(−1.6396)			(−1.0797)
ESG*GD			0.0684			0.1125
			(1.5814)			(1.0364)
CD				−0.9427		0.4008
				(−1.5461)		(0.3425)
ESG*CD				0.2179		−0.0918
				(1.5671)		(−0.3376)
ED					0.5888	1.7444
					(0.7127)	(1.5793)
ESG*ED					−0.1318	−0.4004
					(−0.6923)	(−1.5661)
CASH	0.1253	0.1085	0.0872	0.0961	0.1250	0.1017
	(1.2029)	(1.0898)	(0.8020)	(0.9043)	(1.2162)	(0.9129)
ACR	0.0888	0.0736	0.0745	0.0539	0.0671	0.0695
	(0.8774)	(0.7782)	(0.8296)	(0.6592)	(0.7024)	(0.7771)
Acquiredstake	−0.0088	−0.0140	−0.0041	−0.0100	−0.0219	−0.0138
	(−0.2125)	(−0.3377)	(−0.1219)	(−0.2669)	(−0.5048)	(−0.3712)
BIND	−0.0177	−0.0205	−0.0805	−0.0819	0.0023	−0.0527
	(−0.0962)	(−0.1160)	(−0.3929)	(−0.3899)	(0.0129)	(−0.2464)
AGE	0.0584	0.0574	0.0421	0.0491	0.0583	0.0400
	(1.0610)	(1.0664)	(0.7039)	(0.8190)	(1.0816)	(0.6591)
SOE	−0.0485	−0.0541	−0.0682	−0.0683	−0.0477	−0.0618
	(−1.2250)	(−1.3544)	(−1.6126)	(−1.5378)	(−1.2458)	(−1.5256)
GRO	−0.0100	−0.0118*	−0.0092	−0.0104	−0.0123*	−0.0107
	(−1.4746)	(−1.7062)	(−1.3294)	(−1.3177)	(−1.7039)	(−1.3418)
PAY	−0.0211	−0.0262	−0.0207	−0.0203	−0.0227	−0.0170
	(−0.6685)	(−0.8340)	(−0.8003)	(−0.7578)	(−0.7376)	(−0.6386)
bookvalue	−0.0258	−0.0239	−0.0286	−0.0190	−0.0300	−0.0397
	(−0.7466)	(−0.7365)	(−0.8683)	(−0.6368)	(−0.8862)	(−1.1164)
A_LAW	0.0169	0.0085	−0.0080	0.0009	0.0163	0.0022
	(0.7878)	(0.4296)	(−0.4795)	(0.0580)	(0.7380)	(0.1180)
TonbinQ	0.0272***	0.0258***	0.0201**	0.0218***	0.0242***	0.0171*
	(3.5096)	(3.4121)	(2.1319)	(2.7576)	(3.1350)	(1.7158)
CC	0.0299	0.0236	0.0114	0.0029	0.0248	0.0149
	(0.8320)	(0.6816)	(0.2711)	(0.0690)	(0.6785)	(0.3479)
Size	0.0207***	0.0152**	0.0123	0.0137*	0.0156**	0.0108
	(2.6786)	(2.0570)	(1.5649)	(1.7342)	(2.0661)	(1.2375)
_cons	−0.7502	−0.6835	0.0019	−0.3498	−0.7185	0.0040
	(−1.6232)	(−1.5327)	(0.0029)	(−0.5503)	(−1.5748)	(0.0057)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
N	241	241	241	241	241	241
r2_a	0.4729	0.4960	0.5329	0.5169	0.4937	0.5339

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

impact the relationship between ESG ratings and M&A performance, indicating that traditional notions of country distance have been mitigated to some extent with the development of M&A activities.

6.2. Managerial implications

This study focuses on the impact of Chinese acquirer ESG ratings on cross-border M&A and examines the moderating effects of home country policy enforcement and country distance. It offers implications for the government, Chinese firms, and the public:

For the government, first, ESG has become an important measure of corporate social responsibility. The government should establish a comprehensive legal framework and clearly define the regulatory body for ESG to promote corporate social responsibility and improve ESG ratings. Second, the government should provide incentives, such as tax reductions, for firms that

Table 7
2SLS test of endogeneity (Mean 1)

Variable	Model 1	Model 2
Mean 1	0.004**	
	(2.34)	
L_ESG		−31.824***
		(−2.72)
L_ESGRE	0.226***	−7.049***
	(141.96)	(−2.66)
RE	−0.960***	29.068***
	(−137.55)	(2.58)
CASH	0.001	0.012
	(0.14)	(0.08)
ACR	−0.003	0.057
	(−0.94)	(0.60)
BookValue	0.002	0.141**
	(0.69)	(2.17)
GRO	0.000	−0.014*
	(0.67)	(−1.81)
Acquiredstake	0.002	−0.050
	(1.26)	(−1.04)
PAY	−0.001	0.053*
	(−1.01)	(1.67)
ROA	−0.028	−1.060
	(−0.74)	(−1.01)
GD	−0.001	−0.050*
	(−1.34)	(−1.90)
AGE	0.000	0.007**
	(0.90)	(2.07)
CC	−0.002	0.078*
	(−1.19)	(1.67)
Size	0.001	−0.013
	(1.22)	(−0.95)
Constant	4.234***	−130.922***
	(211.50)	(−2.63)
Cragg-Donald Wald F		103.45
Year Dummy	Yes	YES
Industry Dummy	Yes	YES
Observations	144	144
R-squared	0.996	0.800

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table 8
2SLS test of endogeneity (Mean 2)

Variable	Model 1	Model 2
Mean 2	1.600*	
	(1.91)	
LNscore		1.558**
		(2.17)
GD	−0.494***	−0.772
	(−13.27)	(−0.15)
ESG*GD	0.114***	0.150
	(13.26)	(0.13)
CD	0.022	5.183
	(0.18)	(0.31)
ESG*CD	−0.004	−1.221
	(−0.16)	(−0.31)
ED	0.089	−12.131
	(1.23)	(−1.21)
ESG*ED	−0.021	2.905
	(−1.23)	(1.24)
CASH	0.002	−1.600*
	(0.39)	(−1.92)
ACR	−0.002	1.379**
	(−0.47)	(2.04)
Acquiredstake	0.000	−0.392*
	(0.11)	(−1.65)
BIND	0.002	−1.069
	(0.21)	(−0.75)
AGE	0.003	−0.410
	(1.21)	(−1.27)
SOE	0.001	0.162
	(0.37)	(0.66)
GRO	0.000	0.058
	(0.28)	(1.22)
PAY	−0.000	0.022
	(−0.19)	(0.12)
bookvalue	−0.000	0.417
	(−0.10)	(1.18)
A_LAW	0.001	−0.486*
	(0.64)	(−1.93)
TonbinQ	0.001**	0.007
	(2.62)	(0.10)
CC	−0.002	0.400*
	(−0.93)	(1.74)
Size	−0.000	−0.212***
	(−0.66)	(−2.87)
Constant	4.339***	−0.1382
	(190.32)	(−1.2436)
Cragg-Donald Wald F		151.59
Year Dummy	Yes	YES
Industry Dummy	Yes	YES
Observations	137	137
R-squared	0.998	0.531

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

actively enhance their ESG ratings. Finally, the government should enforce mandatory ESG information disclosure and ensure strong policy enforcement to create a favorable policy environment for ESG development in China.

For firms, Chinese companies with low ESG ratings should prioritize developing countries with more lenient policy environments as target countries for M&A. Post-acquisition, firms should actively practice social responsibility. From an environmental perspective, firms can reduce emissions of greenhouse gases and solid waste [57–59]. From a social perspective, firms should protect vulnerable groups and improve their living conditions [60, 61]. From a governance perspective, firms can enhance transparency, adhere to ethical standards, and follow business ethics [62].

For the public, increased attention to ESG can drive media coverage, further promoting the establishment and improvement of ESG rating agencies in China, providing references for domestic and international investors. Additionally, public pressure can compel firms to improve their ESG ratings, attracting new investors and promoting sustainable development. Therefore, the Chinese government can integrate ESG-related content into the education system or encourage media coverage of ESG issues to raise public awareness, thereby fostering deeper public participation and support for corporate ESG practices and sustainable development.

6.3. Limitations and future research

The limitations and future research directions of this study are as follows: (1) Given the continuous development of ESG, future research can include more comprehensive indicators for analysis, and increase other control variables such as industry characteristics and host country policy data as control variables and consider longer-term trends or more recent data. (2) Considering China's unique political system, further studies can explore the impact of ESG ratings on the M&A activities of state-owned versus private enterprises in China. (3) The study is limited to Chinese companies, which may restrict the generalizability and applicability of the results. Future research could further investigate the behavior of companies in other emerging economies. (4) It is difficult to prove that industry-level ESG affects the performance of companies within the industry solely through firm-level ESG. Therefore, the instrumental variables used in this paper have certain limitations. However, they still provide a meaningful analytical framework, and future research can explore this area more deeply.

Ethical Statement

This study does not contain any studies with human or animal subjects performed by any of the authors.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

The data that support this work are available upon reasonable request to the corresponding author.

Author Contribution Statement

Jianquan Guo: Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization, Supervision, Project administration, Funding acquisition. **Jiao Kou:** Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization.

References

[1] Guo, J., & Cheng, H. (2024). Acquirers' carbon risk, environmental regulation, and cross-border mergers and acquisitions: Evidence from China. *Environment, Development and Sustainability*, *26*, 15861–15904. https://doi.org/10.1007/s10668-023-03276-z

[2] Sun, H., Zhu, S., & Zhang, X. (2023). ESG biǎo xiàn, gōng sī tòu míng dù yǔ qǐ yè shēng yù [ESG, corporate transparency, and corporate reputation]. *Soft Science*, *37*(12), 115–121.

[3] Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, *22*, S119–S127. https://doi.org/10.1016/j.bir.2022.11.006

[4] Huang, C. J., Ke, W. C., Chiang, R. P. Y., & Jhong, Y. C. (2023). Which of environmental, social, and governance pillars can improve merger and acquisition performance? *Journal of Cleaner Production*, *398*, 136475. https://doi.org/10.1016/j.jclepro.2023.136475

[5] Chandrika, R., Mahesh, R., & Tripathy, N. (2022). Is India a pollution haven? Evidence from cross-border mergers and acquisitions. *Journal of Cleaner Production*, *376*, 134355. https://doi.org/10.1016/j.jclepro.2022.134355

[6] Choi, G. (2022). Determinants of target location selection for acquirers in the manufacturing sector: Pollution intensity, policy enforcement, and civic environmentalism. *Journal of Business Research*, *146*, 308–324. https://doi.org/10.1016/j.jbusres.2022.03.074

[7] Copeland, B. R., & Taylor, M. S. (1994). North-south trade and the environment. *The Quarterly Journal of Economics*, *109*(3), 755–787. https://doi.org/10.2307/2118421

[8] Yin, X. N., Li, J. P., & Su, C. W. (2023). How does ESG performance affect stock returns? Empirical evidence from listed companies in China. *Heliyon*, *9*(5), e16320. https://doi.org/10.1016/j.heliyon.2023.e16320

[9] Bose, S., Minnick, K., & Shams, S. (2021). Does carbon risk matter for corporate acquisition decisions? *Journal of Corporate Finance*, *70*, 102058. https://doi.org/10.1016/j.jcorpfin.2021.102058

[10] Broadstock, D. C., Chan, K., Cheng, L. T. W., & Wang, X. (2021). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance Research Letters*, *38*, 101716. https://doi.org/10.1016/j.frl.2020.101716

[11] Khan, W. (2012). Impact of capital structure and financial performance on stock returns: 'A case of Pakistan textile industry'. *SSRN*. Retrieved from: https://ssrn.com/abstract=2082306

[12] Gregory, A., Whittaker, J., & Yan, X. (2016). Corporate social performance, competitive advantage, earnings persistence and firm value. *Journal of Business Finance & Accounting*, *43*(1–2), 3–30. https://doi.org/10.1111/jbfa.12182

[13] Wang, X., Luan, X., & Zhang, S. (2023). Qǐ yè yán fā tóu rù, ESG biǎo xiàn yǔ shì chǎng jià zhí—Qǐ yè shù zì huà shuǐ píng de tiáo jié xiào yìng [Corporate R&D investment, ESG performance, and market value—The moderating effect of corporate digitalization level]. *Studies in Science of Science*, *41*(05), 896–904+915. https://doi.org/10.16192/j.cnki.1003-2053.20220606.001

[14] Song, P., Mao, X., Li, Z., & Tan, Z. (2023). Study on the optimal policy options for improving energy efficiency and co-controlling carbon emission and local air pollutants in China. *Renewable and Sustainable Energy Reviews*, *175*, 113167. https://doi.org/10.1016/j.rser.2023.113167

[15] Wu, R., & Hu, P. (2019). Does the "miracle drug" of environmental governance really improve air quality? Evidence from China's system of central environmental protection inspections. *International Journal of Environmental Research and Public Health*, *16*(5), 850. https://doi.org/10.3390/ijerph16050850

[16] Shimizu, K., Hitt, M. A., Vaidyanath, D., & Pisano, V. (2004). Theoretical foundations of cross-border mergers and acquisitions: A review of current research and recommendations for the future. *Journal of International Management*, *10*(3), 307–353. https://doi.org/10.1016/j.intman.2004.05.005

[17] Sha, Y., Kang, C., & Wang, Z. (2020). Economic policy uncertainty and mergers and acquisitions: Evidence from China. *Economic Modelling*, *89*, 590–600. https://doi.org/10.1016/j.econmod.2020.03.029

[18] Pan, X., & Tian, G. G. (2020). Political connections and corporate investments: Evidence from the recent anti-

corruption campaign in China. *Journal of Banking & Finance*, *119*, 105108. https://doi.org/10.1016/j.jbankfin.2017.03.005

[19] Zhou, K. Z., Wang, K., Xu, D., & Xie, E. (2022). Drinking poison to quench thirst: Does bribery foster firm performance in China? *Journal of Business Research*, *147,* 505–517. https://doi.org/10.1016/j.jbusres.2022.04.038

[20] Deng, X., Kang, J. K., & Low, B. S. (2013). Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics*, *110*(1), 87–109. https://doi.org/10.1016/j.jfineco.2013.04.014

[21] Li, J. (2022). Can technology-driven cross-border mergers and acquisitions promote green innovation in emerging market firms? Evidence from China. *Environmental Science and Pollution Research*, *29*(19), 27954–27976. https://doi.org/10.1007/s11356-021-18154-2

[22] Cao, M., Duan, K., & Ibrahim, H. (2023). Green investments and their impact on ESG ratings: An evidence from China. *Economics Letters*, *232*, 111365. https://doi.org/10.1016/j.econlet.2023.111365

[23] Luo, D., Yan, J., & Yan, Q. (2023). The duality of ESG: Impact of ratings and disagreement on stock crash risk in China. *Finance Research Letters*, *58*, 104479. https://doi.org/10.1016/j.frl.2023.104479

[24] Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, *11*(1), 9–31. https://doi.org/10.1057/palgrave.jibs.8490593

[25] Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., & Winter, S. G. (2009). *Dynamic capabilities: Understanding strategic change in organizations*. USA: Wiley.

[26] Coccia, M. (2019). Comparative world-systems theories. In A. Farazmand (Ed.), *Global encyclopedia of public administration, public policy, and governance* (pp. 1–6). Springer. https://doi.org/10.1007/978-3-319-31816-5_3705-1

[27] Zhang, Z., & Tan, S. (2019). Qiǎn tán lián xù bìng gòu de dòng yīn jí jì xiào fēn xī: Yǐ ā lǐ bā bā jí tuán wéi lì [Analysis of the motives and performance of continuous M&As: A case study of Alibaba Group]. *Modern Marketing (Information Edition)*, (04), 105–106. https://navi.cnki.net/knavi/journals/XIXX/issues/5l3vb1p_-rh5bL2Tq4k-3iIBEKLmQYsIO4Oyr_puRNRZF4Tlxk8zna7gbNKjuzMw?uniplatform=NZKPT

[28] Wang, K., Zhou, J., & Hu, F. (2022). Zhōng měi liǎng guó de qǐ yè hǎi wài bìng gòu cún zài xì tǒng xìng chā yì ma [Are there systematic differences in overseas M&As between Chinese and American companies]? *Journal of Finance and Economics*, *48*(10), 94–107. https://doi.org/10.16538/j.cnki.jfe.20211216.202

[29] He, F., Feng, Y., & Hao, J. (2023). Corporate ESG rating and stock market liquidity: Evidence from China. *Economic Modelling*, *129*, 106511. https://doi.org/10.1016/j.econmod.2023.106511

[30] Luo, D. (2022). ESG, liquidity, and stock returns. *Journal of International Financial Markets, Institutions and Money*, *78*, 101526. https://doi.org/10.1016/j.intfin.2022.101526

[31] Xie, H., Wen, J., & Choi, Y. (2021). How the SDGs are implemented in China – A comparative study based on the perspective of policy instruments. *Journal of Cleaner Production*, *291*, 125937. https://doi.org/10.1016/j.jclepro.2021.125937

[32] Guo, L., & Wu, H. (2023). ESG qū xiàng xià de gōng sī zhì lǐ xiàn dài huà [The modernization of corporate governance under the trends of ESG]. *Journal of Peking University (Philosophy and Social Sciences Edition)*, *60*(4), 149–157. http://journal.pku.edu.cn/EN/Y2023/V60/I4/149

[33] Gunningham, N. (2011). Enforcing environmental regulation. *Journal of Environmental Law*, *23*(2), 169–201. https://doi.org/10.1093/jel/eqr006

[34] Zheng, Z., Li, J., Ren, X., & Guo, J. M. (2023). Does corporate ESG create value? New evidence from M&As in China. *Pacific-Basin Finance Journal*, *77*, 101916. https://doi.org/10.1016/j.pacfin.2022.101916

[35] Zhou, D., & Zhou, R. (2022). ESG performance and stock price volatility in public health crisis: Evidence from COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *19*(1), 202. https://doi.org/10.3390/ijerph19010202

[36] Caiazza, S., Galloppo, G., & Paimanova, V. (2021). The role of sustainability performance after merger and acquisition deals in short and long-term. *Journal of Cleaner Production*, *314*, 127982. https://doi.org/10.1016/j.jclepro.2021.127982

[37] Ye, S., Zhou, J., Jiang, Y., & Liu, X. (2023). Managers as the bridge: How cultural friction influences the integration of cross-border mergers and acquisitions. *International Business Review*, *32*(4), 102138. https://doi.org/10.1016/j.ibusrev.2023.102138

[38] Li, C., Li, H., & Zhao, Z. (2022). Geographic proximity and M&As: Evidence from China. *Emerging Markets Review*, *51*, 100892. https://doi.org/10.1016/j.ememar.2022.100892

[39] Li, W., Su, Y., & Wang, K. (2022). How does economic policy uncertainty affect cross-border M&A: Evidence from Chinese firms. *Emerging Markets Review*, *52*, 100908. https://doi.org/10.1016/j.ememar.2022.100908

[40] Hofstede, G. (1993). Cultural constraints in management theories. *Academy of Management Perspectives*, *7*(1), 81–94. https://doi.org/10.5465/ame.1993.9409142061

[41] Yayla, S., Kutlubay, O. C., Cicek, M., & Yeniyurt, S. (2023). Once upon a time in a foreign market: The role of cultural distance in the economic performance of multilateral non-equity partnerships. *International Business Review*, *32*(4), 102139. https://doi.org/10.1016/j.ibusrev.2023.102139

[42] Cardillo, G., & Harasheh, M. (2023). Stay close to me: What do ESG scores tell about the deal timing in M&A transactions? *Finance Research Letters*, *51*, 103498. https://doi.org/10.1016/j.frl.2022.103498

[43] Chen, H., Yang, Q., & Yang, D. (2022). Nèi bù kòng zhì, guó jiā jù lí yǔ kuà guó bìng gòu jì xiào [Internal control, national distance and cross-border M&A performance]. *Journal of Beijing Technology and Business University (Social Science Edition)*, *37*(3), 60–71. https://doi.org/10.12085/j.issn.1009-6116.2022.03.006

[44] Guo, J., Li, M., & Run, Q. (2020). Hù lián wǎng fā zhǎn, guó jiā jù lí yǔ kuà guó gōng sī gǔ quán jìn rù mó shì de xuǎn zé [Network development, national distance and the choice of multinational corporation equity entry mode]. *Journal of Chongqing Technology and Business University (Social Science Edition)*, *37*(6), 34–43. https://journal.ctbu.edu.cn/sk/cqgsSk/article/abstract/20200604?st=search

[45] Liu, X., Zhao, J., & Jia, J. (2021). Mǔ gōng sī chí gǔ bǐ lì duì zǐ gōng sī cái wù jì xiào yǐng xiǎng jī lǐ yán jiū: Dì lǐ jù lí hé zhì dù jù lí de tiáo jié zuò yòng [The impact mechanism of parent company's shareholding on subsidiary financial performance: The moderating effects of geographic distance and institutional distance]. *Journal of Central University of Finance and Economics*, (7), 103–115.

[46] Run, Q., & Guo, J. (2018). Jīng jì jù lí, bìng gòu jīng yàn yǔ kuà guó gōng sī gǔ quán jìn rù mó shì yán jiū [Economic distance, acquisition experience and MNE's equity entry mode]. *Technology and Innovation Management*, *39*(05), 563–568.

[47] Wang, L., Lian, Y., & Dong, J. (2022). ESG biǎo xiàn duì qǐ yè jià zhí de yǐng xiǎng jī zhì yán jiū [Research on the mechanism of ESG performance's impact on corporate value]. *Securities Market Guide*, (05), 23–34.

[48] Paniagua, J., Korzynski, P., & Mas-Tur, A. (2017). Crossing borders with social media: Online social networks and FDI. *European Management Journal*, *35*(3), 314–326. https://doi.org/10.1016/j.emj.2016.09.002

[49] Morosini, P., Shane, S., & Singh, H. (1998). National cultural distance and cross-border acquisition performance. *Journal of International Business Studies*, *29*(1), 137–158. https://doi.org/10.1057/palgrave.jibs.8490029

[50] Tu, W., & Zhang, Y. (2022). How does cultural distance matter in long-term value creation of cross-border acquisitions? *Emerging Markets Finance and Trade*, *58*(4), 1027–1041. https://doi.org/10.1080/1540496X.2021.1873125

[51] Kang, S., & Hwang, J. (2019). Moderating factors in distant investment of corporate venture capital. *Journal of Open Innovation: Technology, Market, and Complexity*, *5*(1), 19. https://doi.org/10.3390/joitmc5010019

[52] Rosenkopf, L., & Almeida, P. (2003). Overcoming local search through alliances and mobility. *Management Science*, *49*(6), 751–766. https://doi.org/10.1287/mnsc.49.6.751.16026

[53] Feng, Z., & Jing, M. (2021). Duōwéi jù lí duì wǒ guó kuàng chǎn zī yuán qǐ yè kuà guó bìng gòu chéng bài de yǐng xiǎng: Dì lǐ, jīng jì, zhì dù yǔ wén huà [The impact of multidimensional distance on the success of cross-border M&As in China's mineral resource enterprises: Geography, economy, institution, and culture]. *Industrial Economic Review*, *12*(01), 148–160. https://doi.org/10.14007/j.cnki.cjpl.2021.01.010

[54] Boateng, A., Du, M., Bi, X., Kwabi, F. O., & Glaister, K. W. (2022). Ownership type, home-country government-directed investment policies and firm value in strategic sectors: Evidence from Chinese acquiring firms. *British Journal of Management*, *33*(3), 1412–1431. https://doi.org/10.1111/1467-8551.12538

[55] Chu, L., Grafton, R. Q., & Nguyen, H. (2022). A global analysis of the break-even prices to reduce atmospheric carbon dioxide via forest plantation and avoided deforestation. *Forest Policy and Economics*, *135*, 102666. https://doi.org/10.1016/j.forpol.2021.102666

[56] Allen, D. E., & McAleer, M. (2023). Drawbacks in the 3-factor approach of Fama and French (2018). *Annals of Financial Economics*, *18*(01), 2240001. https://doi.org/10.1142/s2010495222400012

[57] Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality*, *30*(1), 98–115. https://doi.org/10.1108/MEQ-12-2017-0149

[58] Hübel, B., & Scholz, H. (2020). Integrating sustainability risks in asset management: The role of ESG exposures and ESG ratings. *Journal of Asset Management*, *21*(1), 52–69. https://doi.org/10.1057/s41260-019-00139-z

[59] Mervelskemper, L., & Streit, D. (2017). Enhancing market valuation of ESG performance: Is integrated reporting keeping its promise? *Business Strategy and the Environment*, *26*(4), 536–549. https://doi.org/10.1002/bse.1935

[60] Saharti, M., Chaudhry, S. M., Pekar, V., & Bajoori, E. (2024). Environmental, social and governance (ESG) performance of firms in the era of geopolitical conflicts. *Journal of Environmental Management*, *351*, 119744. https://doi.org/10.1016/j.jenvman.2023.119744

[61] Velte, P. (2021). Does CEO power moderate the link between ESG performance and financial performance? A focus on the German two-tier system. *SSRN*. Retrieved from: https://ssrn.com/abstract=3755459

[62] Freudenreich, B., Lüdeke-Freund, F., & Schaltegger, S. (2020). A stakeholder theory perspective on business models: Value creation for sustainability. *Journal of Business Ethics*, *166*(1), 3–18. https://doi.org/10.1007/s10551-019-04112-z

How to Cite: Guo, J., & Kou, J. (2025). Acquirer ESG, Home Country Policy Enforcement, Country Distance, and Cross-Border Mergers and Acquisitions: Evidence from Chinese Firms. *Journal of Comprehensive Business Administration Research*, *2*(1), 1–19. https://doi.org/10.47852/bonviewJCBAR42023877

Appendix

Table A1
Variable definitions

Variable attribute	Name	Identifier	Definition	Data source
Dependent Variable	Whether the acquirer chooses to conduct cross-border M&A in developing countries (Dummy Variable)	L_M&A(Dummy)	Dummy variable, whether the acquirer chooses to conduct cross-border M&A in other developing countries in that year. If yes, then "1", otherwise "0".	BvD_Zephyr
	Acquirer's M&A performance	BHAR_1year	Abnormal return of the acquirer's buy-and-hold value-weighted market portfolio within one year after the announcement month	CSMAR
Independent Variable	Low ESG score acquirer	L_ESG	Acquirers with an ESG score below 5 in the year before the announcement	China Securities Index
	Acquirer ESG	ESG	ESG score of the acquirer in the year before the announcement	China Securities Index
	Strength of home country's policy implementation	RE	Government efficiency: Estimate	WDI
	Geographic distance between home country (China) and host country	GD	The natural logarithm of the distance (km) between the capital of the home country and the capital of the host country (Beijing, China)	CEPII
	Cultural distance between home country (China) and host country	CD	Composite index established by the five dimensions of Hofstede's national culture: power distance, individualism, masculinity, uncertainty avoidance, and long-term orientation	Hofstede cultural dimensions website
	Economic distance between home country (China) and host country	ED	Ratio of the GDP of the host country to the GDP of the home country in the year of M&A	WDI
Control Variable	Cash holding rate of acquirer	CASH	The ratio of cash assets to current assets	CSMAR
	Acquirer's current ratio	ACR	Total current assets/total current liabilities in the year before the M&A announcement	CSMAR
	Proportion of independent directors of the acquirer	BIND	Ratio of the number of independent directors to the size of the board in that year	CSMAR
	Age of acquirer	AGE	Duration since the establishment of the acquiring company	CSMAR
	Legal system of the host country	A_LAW Dummy	Dummy variable, whether the host country uses civil law. If yes, then "1", otherwise "0"	WDI
	Proportion of acquired shares after M&A	Acquiredstake	Proportion of the acquired company's shares held by the acquirer after the M&A	CSMAR
	Book value ratio of acquirer	BookValue	Total assets of the acquirer in the previous year/ market value	CSMAR
	Ownership nature of acquirer	SOE Dummy	Dummy variable, if it is a state-owned enterprise, then 1, otherwise 0	CSMAR
	Return on assets of acquirer	ROA	Net income/total assets balance in the year before the M&A	CSMAR
	Growth rate of acquirer's total operating revenue	GRO	(Total revenue of the current year – total revenue of the previous year)/total revenue of the previous year	CSMAR
	Tobin's Q of acquirer	Tobin'Q	Market value of equity/total assets	CSMAR
	Corporate competitive culture	CC	Using the annual reports of listed companies, we applied text analysis on keywords such as competition, promotion, and proactivity to construct word frequency statistics.	annual reports of publicly traded companies CSMAR
	Firm size	Size	The logarithm of total assets at the end of the year	
Instrumental Variables	Acquirer's industry average ESG score for the same year	Mean1	Total ESG score of companies in the same industry for the same year/number of companies	CSMAR
	Acquirer's industry and city average ESG score for the same year	Mean2	Total ESG score of other companies in the same industry and city for the same year/number of companies	CSMAR

Table A2
Correlation analysis (L_ESG as the main independent variable)

Variable	L_ESG	RE	CASH	ACR	BookValue	Acquiredstake	PAY	ROA	GD	AGE
L_ESG	1									
RE	−0.129*	1								
CASH	0.0810	0.0280	1							
ACR	0.183**	−0.0490	0.400***	1						
BookValue	0.113	−0.168**	−0.253***	0.0100	1					
GRO	0.137*	−0.0420	0.0250	−0.224***	0.0100					
Acquiredstake	0.0560	−0.0390	0.114	0.133*	−0.0580	1				
PAY	0.00600	0.0870	0.0100	−0.00700	−0.0250	−0.104	1			
ROA	0.274***	−0.0250	0.211***	0.0370	−0.265***	−0.0570	0.136*	1		
GD	−0.141*	−0.0480	−0.0410	0.0640	0.00400	0.0690	−0.0450	−0.0410	1	
AGE	−0.0250	0.436***	−0.0450	−0.0530	−0.0910	0.180**	−0.0110	−0.103	−0.134*	1

Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A3
Correlation analysis (ESG as the main independent variable)

	ESG	GD	CD	ED	CASH	ACR	Acquiredstake	BIND	AGE	SOE	GRO	PAY	bookvalue	A_LAW	Tobin'Q
ESG	1														
GD	–0.123**	1													
CD	–0.07	0.349***	1												
ED	–0.121**	0.281***	0.331***	1											
CASH	0.095	–0.05	–0.09	–0.04	1										
ACR	0.098*	0.02	–0.108*	0.112*	0.480***	1									
Acquiredstake	–0.04	0.068	–0.07	0.283***	0.110*	0.156***	1								
BIND	0.116*	0.038	–0.102*	–0.08	0.07	0.09	–0.02	1							
AGE	–0.02	–0.102*	–0.07	–0.07	–0.145**	–0.115*	–0.06	–0.119**	1						
SOE	0.108*	–0.07	–0.07	–0.143**	–0.130**	–0.03	0.076	–0.07	0.084	1					
GRO	0.279***	0.083	0.018	–0.07	–0.004	–0.05	0.101*	–0.009	0.022	0.114*	1				
PAY	–0.002	0.037	0.054	–0.100*	–0.04	–0.03	0.184***	0.003	–0.02	–0.200***	–0.04	1			
bookvalue	–0.02	–0.07	–0.01	0.036	0.014	0.018	0.124**	–0.151**	0.065	0.174***	0.101*	–0.08	1		
A_LAW	0.118**	0.175***	0.629***	0.277***	0.133**	0.141**	0.079	0.164***	–0.03	0.027	–0.05	–0.120**	–0.03	1	
Tobin'Q	0.021	0.013	0.08	0.145**	0.220***	0.041	–0.007	0.093	0.021	0.219***	–0.06	0.09	–0.08	–0.06	1

Table A4
Descriptive statistics

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	总计
Total	7	6	13	10	11	20	17	52	37	40	31	26	16	286
Mining Industry	0	1	2	0	1	0	1	0	1	1	1	1	1	10
Warehousing Industry	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Electricity and Heat Production and Supply Industry	0	0	0	0	0	0	1	1	0	0	1	0	0	3
Service Industry	0	0	0	0	1	0	1	7	4	2	0	1	1	17
Computer Industry	0	0	2	0	0	0	1	1	1	0	0	0	0	5
Processing Industry	0	0	1	0	0	0	0	3	0	4	4	0	6	18
Construction Industry	1	0	0	1	0	0	0	5	2	1	1	2		13
Education	0	0	0	0	0	0	0	1	0	0	0	1		2
Retail Industry	0	0	0	0	0	0	0	2	1	0	0	1	1	7
Agriculture	1	0	0	0	0	0	0	0	0	0	1	0	0	2
Water Production and Supply Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Health Industry	0	0	0	0	0	0	0	0	0	0	0	1	0	1
News and Publishing Industry	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Research and Experimental Development	0	0	0	0	0	0	0	0	0	0	2	0	1	3
Transportation Industry	0	1	0	0	0	0	0	0	2	1	1	0	0	5
Manufacturing Industry	4	2	8	9	9	16	13	30	26	31	19	19	6	192
Heavy Non-ferrous Metal Smelting Industry	1	2	0	0	0	0	0	0	0	0	0	0	0	3
Comprehensive Industry	0	0	0	0	0	0	0	1	0	0	0	0	0	1
AA	0	0	0	0	0	0	0	0	0	1	0	0	0	1
A	0	0	0	0	0	0	0	0	0	0	0	0	1	1
BBB	0	0	1	0	1	1	0	6	3	7	6	4	5	34
BB	5	4	5	4	7	6	4	12	12	12	4	10	3	88
B	2	0	6	4	1	6	9	17	11	10	10	8	3	87
CC	0	1	0	1	0	0	0	3	0	6	4	0	0	15
C	0	0	0	0	0	0	0	2	2	0	0	0	0	4
Total	7	6	13	10	11	20	17	52	37	40	31	26	16	286

Table A5
Descriptive statistics

Variable	Mean	SD	p25	p50	p75
ESG	4.227	1.164	3	4	5
GD	8.863	0.617	8.904	9.004	9.255
CD	2.947	1.125	2.003	3.421	3.970
ED	0.323	0.511	0.0280	0.162	0.300
CASH	0.152	0.122	0.0770	0.124	0.180
ACR	0.541	0.179	0.419	0.553	0.666
Acquiredstake	0.683	0.372	0.275	0.993	1
BIND	0.378	0.0650	0.333	0.357	0.429
AGE	2.806	0.322	2.627	2.841	3.012
SOE Dummy	0.241	0.429	0	0	0
GRO	0.975	5.074	0.0620	0.208	0.472
PAY	0.497	0.501	0	0	1
BookValue	0.555	0.249	0.358	0.538	0.742
A_LAW Dummy	0.469	0.500	0	0	1
Tobin'Q	2.017	1.329	1.211	1.671	2.343

Table A6
Descriptive statistics – Mean and median

	Full sample (178)		Host country (Developed countries) (105)		Host country (Developing countries) (73)		Developed – developing countries	
Variable	Mean	Median	Mean	Median	Mean	Median	Mean	Median
L_ESG	3.949	5	4.076	5	3.767	3	*	
RE	−0.105	−0.103	−0.117	−0.103	−0.088	−0.076		
CASH	0.139	0.116	0.135	0.110	0.144	0.131		
ACR	0.538	0.536	0.554	0.547	0.516	0.528		
BookValue	0.538	0.509	0.537	0.498	0.539	0.547		
GRO	2.357	0.237	2.472	0.271	2.190	0.232	**	
Acquiredstake	0.720	1	0.667	0.800	0.796	1		
PAY	0.517	1	0.543	1	0.479	0		
ROA	0.0370	0.0390	0.0350	0.0370	0.0400	0.0450		
GD	8.790	9.005	8.812	9.004	8.758	9.320		*
AGE	17.91	17.83	17.90	18.08	17.92	17.75		

Note: This table shows descriptive statistics (mean and median) for the main dependent and independent variables in this section. In addition to the overall sample, we also divide the sample into firms that chose developed countries and developing countries for cross-border M&A. We use *t*-tests and non-parametric tests to verify the significant differences in means and medians between developed and developing countries: Host Country (Developed Countries) – Host Country (Developing Countries). Note: *t*-values in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$