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Local CEO and Climate Risk Awareness

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Abstract. This study empirically examines the impact of locally hired CEOs on corporate climate risk awareness, using a sample of A-share listed companies in Shanghai and Shenzhen from 2007 to 2023. Findings reveal that firms employing local CEOs exhibit significantly higher levels of climate risk awareness. Mechanism analysis indicates that the impact of local CEOs on corporate climate risk attention is more pronounced in regions characterized by stronger CEO hometown attachment and greater media oversight pressure. Supplementary analysis reveals that this association is particularly significant in highly competitive regions and among companies with higher institutional investor ownership.

Keywords: Local CEO, Climate Risk Awareness, hometown identity.

1. Introduction

Against the backdrop of increasingly frequent extreme weather events,to meet compliance requirements and mitigate losses from climate risks, many enterprises are proactively developing strategies during production and operations to reduce potential threats posed by climate change to their business environment, market demand, and supply chain stability. For instance, establishing climate change management strategies to identify and assess climate-related risks and opportunities; implementing tiered management for carbon emission reduction and energy consumption reduction; adopting various energy-saving and emission-reduction initiatives to enhance energy efficiency; and actively exploring opportunities for renewable energy application to reduce energy consumption and greenhouse gas emissions.

Existing literature has examined factors influencing corporate attention to climate risks based on both internal and external governance characteristics. However, few studies have examined the impact of CEO hometown—a key characteristic of executive heterogeneity—on corporate climate risk awareness.To test the above inference, we examine the effect and mechanism of CEO local appointment on corporate climate risk awareness using Chinese A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2007 to 2023 as the initial research sample. The findings reveal that local CEO appointments significantly enhance corporate attention to climate risks, with this conclusion remaining robust after stability tests. Mechanism tests indicate that local CEOs, driven by stronger hometown attachment and heightened media scrutiny, elevate corporate climate risk awareness. Further analysis shows that the positive impact of local CEO appointments on climate risk attention is more pronounced in regions with higher competition levels and in companies with greater institutional investor ownership.

2. Literature Review and Research Hypotheses

2.1. Literature Review

Research has shown that corporate attention to climate risks is influenced by external governance characteristics, particularly policies and regulatory bodies. Gebhardt et al.[1] emphasize the critical role of the Task Force on Climate-related Financial Disclosures framework in guiding corporate disclosure of climate risks and opportunities, underscoring the TCFD framework's prominence in

current climate risk disclosure research. Regulatory guidance and mandatory requirements provide enterprises with clear disclosure frameworks and standards, thereby driving greater disclosure of climate risk information. Additionally, climate risk disclosure policies vary across different industries. Sautner et al.[2] found that sectors such as utilities (including electricity, gas, and sanitation services), construction, and transportation equipment generally exhibit higher levels of climate risk disclosure. This may stem from factors like energy dependency and the extent of regulatory policy influence.

Beyond external governance characteristics, the level of climate risk disclosure by enterprises is also influenced by internal governance factors. On one hand, board characteristics affect corporate attention to climate risks. Gebhardt et al.[1] found that board size is negatively correlated with the quality of climate risk disclosure, while the proportion of female directors is positively correlated with disclosure quality. Ben-Amar and McIlkenny observed that board diversity and independence significantly enhance the quality of climate information disclosure[3]. Cotter and Najah found that increasing board independence and diversity substantially improves the quality of climate information disclosure[4]. Damian Honey et al.[5] identified a significant positive correlation between corporate governance quality and climate risk disclosure, noting that the presence of a governance committee further amplifies the positive impact of governance quality on climate risk disclosure.

2.1.1. Economic Consequences of Locally Hired CEOs

Existing research on the impact of locally appointed CEOs on enterprises has not reached a unified conclusion, and the mechanism linking hometown attachment to corporate decision-making remains unclear. Research on the economic consequences of local CEO appointments has revealed that local CEOs exhibit distinct behavioral characteristics compared to non-local CEOs across multiple dimensions, exerting significant positive impacts on corporate operations and local long-term development. Based on the top-down theory, Ren et al.[6] found that in heavily polluting industries, a CEO's hometown identity can drive corporate green innovation. Lai et al.[7] found that local CEOs are less inclined than non-local CEOs to make short-sighted decisions. However, in recent years, some scholars have questioned the positive effects of hometown identification, arguing that local CEOs may exert negative influences. Local executives, driven by hometown attachment, may exhibit favoritism toward hometown interests, thereby harming corporate interests and adversely affecting the company. Huang Zhen et al. [8] found that local executives, driven by a sense of responsibility to benefit their hometown, tend to engage in excessive investment behavior motivated by hometown interests rather than corporate interests.

2.2. Research Hypotheses

Climate risks not only negatively impact a company's daily operations and financial performance[9], but also threaten the compliance and legality of its production and business activities. Moreover, these adverse effects can be amplified or mitigated depending on the location where the CEO is based. Local CEOs, driven by high hometown attachment, translate emotional bonds into altruistic motivation, integrating climate risks into strategy to benefit their hometowns. Simultaneously, the dense relational networks of familiar societies amplify public oversight, where negative evaluations directly erode their social capital locally, forming informal regulation. This dual mechanism of “emotion-public opinion” synergistically drives local CEOs to proactively enhance climate risk awareness, achieving symbiotic outcomes for corporate sustainability and hometown interests.

On one hand, based on hometown attachment theory, individuals maintain a unique and profound emotional bond with their hometown. Fullilove points out that hometown refers not only to a physical space but also serves as a vital repository of personal emotions, memories, and identity—forming the foundation of an individual's sense of security, belonging, and self-identity [10]. This emotional attachment motivates people to care about their hometown's development and generates an intrinsic drive to contribute to it. Generally speaking, individuals' emotional attachment to their hometown can inspire altruistic behavior, manifesting as concern for the sustainable social, economic, and environmental development of their hometown. This emotionally driven behavioral tendency is not

only reflected in everyday participation but may also extend to responsible practices within professional roles. For senior corporate executives, hometown attachment similarly influences strategic decisions and behavioral orientations. When CEOs serve in companies located in their hometowns, their emotional attachment may translate into profound concern for hometown development, thereby motivating them to leverage corporate resources to give back to their hometown and foster local growth[15]. Compared to non-local CEOs, local CEOs exhibit higher levels of hometown attachment. Consequently, driven by this emotional bond, local CEOs are more inclined to incorporate climate risks into corporate strategic considerations. Influenced by their altruistic tendencies, local CEOs may consciously elevate corporate attention to climate risks, enhance preparedness for specific climate risk events, and limit corporate exposure to climate disasters, thereby mitigating systemic societal risks to some extent. Furthermore, companies attentive to climate risks often prioritize green innovation, increasing investment in environmental technology R&D, optimizing the eco-friendliness of products and production processes, and enhancing their capacity to address climate change. For instance, by optimizing energy structures and improving energy efficiency, they reduce negative environmental impacts, thereby improving the overall ecological environment quality of their hometowns and creating more sustainable and healthy living environments.

On the other hand, from the perspective of public opinion, listed companies serve as vital components of regional economies. Their strategic decisions significantly impact local economic development, drawing attention and expectations from multiple stakeholders including local governments, media, and the public. In this era of heightened transparency, the proliferation of social media and online platforms enables the public to rapidly disseminate and amplify evaluations of corporate conduct, making corporate social responsibility increasingly a focal point of public discourse. Against this backdrop, the CEO, as the organization's highest leader, not only directly represents the corporate image through their words and actions but also shapes the company's social legitimacy in the public consciousness. Aligning with societal expectations helps companies build a positive reputation, enhance public trust, and gain market recognition. Conversely, if corporate actions deviate from social values, CEOs may face public criticism and reputational risks, ultimately impacting the company's social capital and long-term development. Therefore, in response to the public's ongoing concern about corporate social responsibility, CEOs often proactively address societal expectations, transforming external pressure into internal governance momentum. This drives companies to take more proactive actions in environmental protection, social welfare, and other areas. This “public opinion-response” mechanism constitutes an informal regulatory framework for corporate behavior. Furthermore, for local CEOs serving in their hometowns, the social pressure they face carries stronger relational characteristics. China's social structure exhibits typical “familiar society” attributes, where hometowns serve as the origin points of individuals' social networks. Reputation capital in these hometowns not only concerns personal image but directly impacts the accumulation of social capital within local relational networks. When a local CEO is exposed for irresponsible behavior, the resulting social backlash originates not only from external publics but also from direct condemnation and moral pressure within their local social networks. Compared to non-local CEOs, local CEOs possess denser social ties in their corporate locations, significantly amplifying the reputational damage and psychological costs of negative publicity. The potential risk of fracturing social networks creates a stronger behavioral constraint mechanism. Consequently, local CEOs find it harder to withstand the social capital depletion caused by negative public opinion. They are thus more inclined to maintain their local reputation and legitimacy through proactive social responsibility fulfillment and enhanced climate risk governance[11]. This informal governance mechanism, jointly formed by social networks and public oversight, effectively curbs opportunistic behavior among local CEOs, driving them to prioritize societal expectations and sustainable development goals in corporate decision-making.

Therefore, driven by altruism stemming from hometown attachment and facing the legitimacy pressure of familiar social discourse, local CEOs will be more consciously inclined to heighten their

companies' awareness of climate risks. This heightened awareness will in turn strengthen corporate preparedness for specific climate risk events and limit the exposure of local companies to such risks.

Thus, we propose Hypothesis H1: Local CEO tenure increases corporate attention to climate risks.

3. Data Sources and Study Design

3.1. Sample Selection and Data Sources

This study uses A-share listed companies on the Shanghai and Shenzhen stock exchanges in China from 2007 to 2023 as the initial research sample. The sample underwent the following processing: (1) Exclusion of financial listed companies; (2) Exclusion of ST and ∗ST listed companies; (3) Exclusion of samples with missing variable values; (4) Truncation of the top and bottom 1% of primary continuous variables. The local CEO variable incorporates data on the CEO's place of origin and the company's registered location. The CEO's place of origin data primarily originates from the Guotai An (CSMAR) China Listed Companies Research Database, supplemented manually using information from company prospectuses, web search engines, and official websites of enterprises and industry associations. The company's registered location data is sourced from the Guotai An (CSMAR) database. Climate risk awareness data was processed using Python, while control variables were sourced from the Guotai An (CSMAR) database. Following these procedures, a final dataset of 10,277 firm-year observations was obtained.

3.2. Variable Definition

3.2.1. Explanatory Variable—CEO Local Employment

This study measures CEO local employment based on the consistency between the CEO's place of origin and the company's registered location. First, following the approach of Zhang Haofei et al.[12], the positions of general manager, president, and chief executive officer are collectively referred to as CEO. These executives are primarily responsible for daily operations, key personnel decisions, and major operational decisions, exerting decisive influence on whether a company increases its attention to climate risks. Finally, following the methodology of Ren et al.[6] and Yan Ruosen and Zhou Ran[13], a CEO is classified as "locally appointed" when their place of origin matches the province where the company is registered. This study assigns a value of '1' to local CEO appointment (localceo) when the CEO's provincial origin aligns with the company's registered province, and "0" otherwise.

3.2.2. Dependent variable—Climate risk awareness

Foreign scholars have employed proxy variables for climate risk, such as dummy variables for climate risk disclosure[14], greenhouse gas emissions and energy consumption data[15], temperature increases[16], and third-party physical climate data[17]. However, these indicators face limitations including unsuitability at the corporate level, lack of consideration for the Chinese context, and inability to comprehensively reflect climate risk. Li et al.[18] constructed a lexicon through text analysis of earnings conference call transcripts from U.S. listed companies, measuring climate risk by calculating the frequency of the keyword "climate risk." This approach represents one of the more comprehensive methods for assessing corporate-level climate risk in existing research. However, Chinese expressions are more diverse than English ones. Simply translating the English lexicon constructed by Li et al.[18] is not feasible for applying their measurement method to the Chinese context.

Therefore, this paper adopts the methodology of Du Jian et al.[19], utilizing text analysis and machine learning to extract annual reports from listed companies and construct a climate risk attention indicator. The data underwent the following processing steps: (1) Downloaded annual report files from Chinese A-share listed companies for the period 2007–2023 from the China Securities Regulatory Commission's website, converted PDF documents to TXT format, and excluded scanned documents and missing files; (2) Performed word segmentation on the annual report content using

the Chinese general-purpose dictionary "Jieba" library package and removed stop words; (3) Calculated the word frequency of the word set corresponding to the climate risk attention indicator[19]. The word set corresponding to the climate risk attention indicator is shown in Table 1.

Table 1. Climate Risk Indicator Seed Word Set

	(1)Seed Word	(2)Expand Vocabulary
Source	Li et al. (2020), National Meteorological Science Data Center, Annual Report	Word vector model similarity expansion identifies terms not indicative of climate risk (e.g., "standard conditions," "meter box," "voltage regulation" among similarity terms for "electricity supply") and flags noisy terms in annual reports (e.g., "upgrading," "pace," 'strengthening' among similarity terms for "transformation").
Word	Energy conservation, electricity, energy, clean, fuel, ecological, water conservation, environment, green, transition, solar energy, upgrading, recycling, renovation, utilization rate, nuclear power, wind power, natural gas, efficiency enhancement, fuel oil, efficiency, recycling, renewable, high-efficiency, photovoltaic, emission reduction, consumption reduction, disasters, earthquakes, typhoons, tsunamis, flooding, drought and flooding, fire, extreme, torrential rain, severe, urban flooding, strong winds, sandstorms, hail, special, drought, hurricane, frost, flood, storm, mudslide, landslide, flood disaster, drought, blizzard, ice storm, snow disaster, ice and snow, climate, weather, natural, humidity, water temperature, cooling, cold, air temperature, rainfall, temperature, rainwater, rainy season, rainfall conditions, freezing, precipitation, early frost, low temperature, high temperature, rain and snow (76 terms)	Energy conservation, energy, clean, ecological, environmental, transition, solar energy, upgrading, circular, utilization rate, nuclear power, wind power, natural gas, efficiency enhancement, fuel oil, efficiency, renewable, emission reduction, environmental protection, green, low-carbon, consumption reduction, fuel, water conservation, photovoltaic, high efficiency, retrofitting, fuel consumption, electricity consumption, energy consumption, wind power, photovoltaic, efficacy, intensive, disasters, earthquakes, typhoons, tsunamis, drought and flooding, extreme, adverse, urban flooding, strong winds, sandstorms, hurricanes, frost, floods, storms, mudslides, landslides, ice jams, snow disasters, droughts, floods, torrential rains, tornadoes, hail, flood damage, rain and snow, freezing, blizzard, frost damage, drought, drought conditions, heavy rainfall, flood, severe cold, sandstorm, climate, weather, humidity, water temperature, cooling, cold, air temperature, rainfall, temperature, rainwater, rainy season, rainfall conditions, precipitation, overcast and rainy, rainy, extreme cold, winter, flood season, high humidity, water conditions, water level, sunlight, water shortage, high cold, cold wave, subsidence, groundwater, flood situation, surface, water storage (98 items)

3.2.3. Control Variables

This study references the research of Wu Yaqian et al.[20] and Li Jiyuan et al.[21], selecting control variables from both firm characteristics and executive characteristics. Control variables for firm characteristics include firm size (SIZE), return on assets (ROA), leverage ratio (LEV), firm losses (loss), firm revenue growth rate (Growth), and firm ownership structure (SOE). Control variables for

executive characteristics include dual role (DUAL), largest shareholder ownership ratio (TOP1), proportion of independent directors (IB), board size (BSIZE), separation between actual control and ownership (Separation), gender ratio (Gender), and management shareholding ratio (MSH). Additionally, this study further controls for year fixed effects and industry fixed effects to account for variations in firm characteristics due to temporal changes or industry differences. Specific variable definitions and measurement methods are detailed in Table 2.

Table 2. Variable Definition Table

Type	Symbol	Definition
Explanatory variable	localceo	Whether the CEO of an enterprise is locally employed. This is determined by whether the CEO's place of origin matches the enterprise's registered location. If they match, the value is 1; otherwise, it is 0.
Dependent variable	ClimateRisk	Climate Risk Attention Level: The sum of the word frequencies of 98 “climate risk” terms divided by the total word frequency in the annual report, multiplied by 10^4.
Control variables	SIZE	Enterprise scale, measured by the natural logarithm of total assets at the end of the period.
	ROA	Return on Total Assets equals net profit divided by total assets at the end of the period.
	LEV	The debt-to-asset ratio, equal to the ratio of total liabilities at the end of the period to total assets at the end of the period, measures a company's ability to repay its debts.
	loss	Enterprise loss dummy variable: takes a value of 1 if a loss occurs, otherwise 0.
	Growth	Enterprise operating revenue growth rate.
	SOE	Enterprise nature: State-owned enterprises are assigned a value of 1, while non-state-owned enterprises are assigned a value of 0.
	DUAL	Whether the Chairman and CEO positions are combined is a silent variable.
	TOP1	Shareholding ratio of the largest shareholder.
	IB	Percentage of independent directors in enterprises.
	BSIZE	Board size, the natural logarithm of the total number of board members.
	Separation	The difference between the actual controller's control over the enterprise and ownership of the enterprise.
	Gender	Percentage of males in management. Individuals whose gender cannot be determined are excluded from the calculation.

3.3. Model Design

As climate risks increasingly impact businesses, it has become crucial for companies to heighten their awareness of such risks. To examine whether a CEO's local appointment influences corporate attention to climate risks, this paper constructs the following model to test the effect of a CEO's local appointment on corporate climate risk awareness:

$$ClimateRisk_{i,t} = \alpha_0 + \alpha_1\ localceo_{i,t} + \alpha_i Controls_{i,t} + Industry + Year + \varepsilon_{i,t} \quad (1)$$

Among these, ClimateRisk represents the climate risk focus of listed companies, localceo indicates whether the incumbent CEO of a listed company is locally appointed, Controls represents a set of control variables in the model, α_0 denotes the constant term, α_1 serves as the regression coefficient and is the primary focus of this model, αi represents the coefficients for each control variable, Industry accounts for industry-specific fixed effects, Year accounts for year-specific fixed effects, $\varepsilon i,t$ denotes

the regression residuals of the model, where i and t represent the observed entity and the time period, respectively.

4. Empirical Analysis

4.1. Descriptive statistics

Table 3 reports descriptive statistics for key variables, with a total sample size of 10,277. The mean value for the dependent variable Climate Risk is 1.402, ranging from a minimum of 1.402 to a maximum of 102.7, indicating significant variation in climate risk awareness across firms. The mean value of the explanatory variable localceo is 0.557, with a minimum of 0 and a maximum of 1. This indicates that 55.7% of companies in the sample have locally appointed CEOs, consistent with the findings of Li, Ji, and Yuan[21], suggesting the validity of this indicator.

Table 3. Descriptive Statistics of Key Variables

Variable	Sample Size	Maximum	Minimum	Mean	Standard Deviation	Median
ClimateRisk	10277	102.70	1.402	15.270	16.700	10.170
localceo	10277	1.000	0.000	0.557	0.497	1.000
SIZE	10277	26.490	19.830	22.320	1.422	22.100
ROA	10277	0.2110	-0.209	0.040	0.059	0.038
LEV	10277	0.8840	0.051	0.435	0.206	0.434
loss	10277	1.000	0.000	0.107	0.309	0.000
Growth	10277	2.537	-0.546	0.177	0.404	0.113
SOE	10277	1.000	0.000	0.368	0.482	0.000
DUAL	10277	1.000	0.000	0.434	0.496	0.000
TOP1	10277	75.840	9.240	35.420	15.270	33.180
IB	10277	0.571	0.308	0.377	0.056	0.364
BSIZE	10277	2.773	1.792	2.248	0.188	2.303
Separation	10277	26.490	0.000	4.608	7.164	0.000
Gender	10277	100.000	50.000	81.340	11.370	82.610
MSH	10277	0.650	0.000	0.089	0.162	0.000

4.2. Regression Results

The regression results on the impact of local CEO appointments on climate risk awareness are presented in Table 4. This study employs a stepwise regression approach. Column (1) controls only for industry and year fixed effects. Column (2) incorporates selected firm-level characteristics, while Column (3) further includes corporate governance variables. From Column (1) to Column (3) in Table 4, the coefficient for local CEO appointments remains positive and statistically significant. In Column (3), the coefficient for local CEO appointment (localceo) is 0.88, significantly positive at the 1% level. This finding indicates that local CEOs promote corporate attention to climate risk, supporting Hypothesis H1. Among the control variables, the estimated coefficient for firm size (SIZE) is significantly positive, suggesting larger firms tend to allocate greater attention to climate risk. The estimated coefficients for return on assets (ROA) and corporate losses are significantly negative, indicating that companies with high ROA can afford to bear climate risks, while loss-making companies lack surplus funds to address climate risks. The debt-to-asset ratio (Lev) is significantly negative, suggesting that companies with high debt levels are unable to bear climate risks and thus need to increase their attention to climate risks.

Table 4. Local CEOs and Climate Risk Awareness

VARIABLES	(1) ClimateRisk	(2) ClimateRisk	(3) ClimateRisk
localceo	0.884***	0.930***	0.880***
	(2.88)	(3.09)	(2.92)
SIZE		2.206***	2.184***
		(15.39)	(14.40)
ROA		-7.831**	-8.583***
		(-2.43)	(-2.69)
LEV		4.835***	4.620***
		(5.23)	(4.94)
loss		-1.609**	-1.539**
		(-2.48)	(-2.37)
Growth		0.411	0.417
		(1.02)	(1.02)
SOE		-1.412***	-1.714***
		(-4.06)	(-4.34)
DUAL			-0.558
			(-1.63)
TOP1			0.020**
			(2.01)
IB			-10.853***
			(-3.55)
BSIZE			-1.688*
			(-1.78)
Separation			0.044**
			(2.05)
Gender			0.056***
			(4.15)
MSH			1.512
			(1.40)
Constant	0.936	-47.499***	-44.354***
	(1.35)	(-16.19)	(-12.39)
Observations	10,277	10,277	10,277
Adj.R^2	0.210	0.248	0.252
Industry	Control	Control	Control
Year	Control	Control	Control

t statistics in parentheses * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, The following tables are the same.

4.3. Robustness Test

4.3.1. Heckman

Although the results of the benchmark regression analysis validate the theoretical framework presented in this paper, the selected sample consists of companies with complete data on CEO hometowns. This may introduce self-selection bias into the sample, potentially leading to biased regression results. To address this issue, this paper employs Heckman's two-stage regression method to test the robustness of the prior findings, with the regression model specified as Equation (2).

$$\text{localceo\_dummy}_{i,t} = \beta_0 + \beta_7 \text{Control}_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

First, in Heckman's first stage, a dummy variable (localceo_dummy) is generated: it takes a value of 1 when the firm discloses the CEO's hometown, and 0 otherwise. This localceo_dummy is used as an

independent variable in a Probit regression to calculate an inverse Mills ratio (IMR) for correcting sample selection bias. In the second stage, the inverse Mills ratio (imr) estimated in the first stage is incorporated into the second-stage model as a new control variable for regression testing. The regression results are shown in Table 5. The results indicate that after incorporating the inverse Mills ratio, the regression coefficient for the local CEO's attention to climate risk remains significantly positive at the 1% significance level. Thus, local CEO appointments continue to enhance climate risk awareness. Consequently, the earlier findings remain robust after controlling for sample selection issues.

Table 5. Heckman

	(1) localceo_dummy	(2) ClimateRisk
localceo		0.881***
		(2.917)
imr		0.855
		(0.193)
SIZE	0.181***	2.300***
	(25.688)	(3.741)
ROA	0.275**	-8.406**
	(2.369)	(-2.531)
LEV	-0.130***	4.531***
	(-3.030)	(4.324)
loss	0.062**	-1.504**
	(2.310)	(-2.217)
Growth	-0.000*	0.416
	(-1.824)	(1.021)
SOE	-0.030*	-1.733***
	(-1.656)	(-4.386)
DUAL	0.688***	-0.124
	(43.604)	(-0.055)
TOP1	-0.001	0.019*
	(-1.591)	(1.917)
IB	0.432***	-10.585***
	(3.005)	(-3.142)
BSIZE	0.034	-1.668*
	(0.703)	(-1.748)
Separation	-0.004***	0.041
	(-4.589)	(1.633)
Gender	-0.001	0.055***
	(-1.209)	(4.018)
MSH	-0.375***	1.275
	(-7.832)	(0.798)
Constant	-5.415***	-47.803***
	(-26.709)	(-2.643)
Observations	46628	10277
Pseudo R^2	0.089	
Adj.R^2		0.248
Industry	Control	Control
Year	Control	Control

4.3.2. Placebo test

The effect of CEO local employment on climate risk awareness may stem from omitted variables. To eliminate the influence of omitted variables on the study's conclusions, a placebo test was conducted. The CEO local employment variable was randomly swapped across listed companies, and regression analysis was re-run using the reshuffled and rematched sample. If the positive correlation between CEO local residency and climate risk awareness stems from omitted variables, the regression coefficient for CEO local residency in the re-matched data will remain significantly positive. Conversely, if the coefficient becomes insignificant after random reassignment, it indicates that heightened climate risk awareness is indeed driven by CEO local residency.

To further strengthen the robustness of the placebo test results, this study randomly assigned the CEO local employment variable to each listed company and repeated the regression 1,000 times. If local CEO employment were indeed significantly correlated with corporate climate risk attention, the estimated coefficient for localceo should be insignificant across the multiple regression results of the placebo test. The kernel density estimate of the t-values from the 1,000 randomly shuffled regression results is shown in Figure 1. The figure reveals that most t-values fall between -1.96 and 1.96, indicating that the difference between the sample mean and the population mean is not significant at the 95% confidence level. The t-value for localceo in the main regression is 2.92, significantly exceeding 1.96. This confirms that the impact of local CEO appointment on climate risk awareness remains unaffected by other unobserved factors, further validating the robustness of the benchmark regression findings.

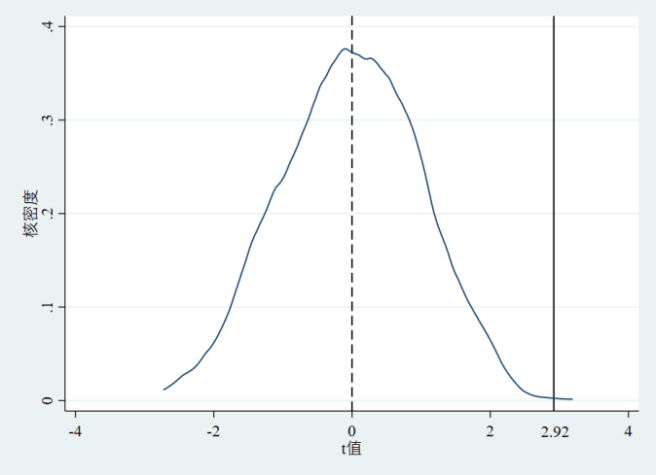

Fig. 1 Kernel Density Estimation of T-Values

4.3.3. Instrumental Variables Method

The findings of this study indicate that the local appointment of CEOs significantly influences corporate attention to climate risks. Conversely, corporate attention to climate risks may also affect CEO appointment decisions. This suggests a potential bidirectional causal relationship between CEO local appointments and corporate climate risk attention. Such bidirectional causality can lead to biased ordinary least squares (OLS) estimation results. To address this potential endogeneity issue, this study employs the instrumental variables (IV) method. Following the methodology of Henderson et al.[22] and Yan[13], we select the ratio of other firms in the same region hiring local CEOs in the same year after excluding the firm itself (Local_IV) as the instrumental variable. The proportion of other firms hiring local CEOs correlates with the firm's own hiring of a local CEO but does not directly affect its climate risk focus.

The results of the first-stage regression are shown in Column (1) of Table 6. The regression coefficient between local CEO (localceo) and the selected instrumental variable (Local_IV) is 0.728, significant at the 1% level. This indicates that a higher proportion of local CEO appointments in a region correlates with a CEO's tendency to work for a company in their hometown, thus satisfying the

fundamental requirement that the instrumental variable is correlated with the explanatory variable. Regarding the weak instrumental variable test, the F-statistic for the first-stage regression is 1046.050, exceeding 10. Thus, the null hypothesis of weak instrumental variables is rejected, confirming the appropriateness of the chosen instrumental variable. The results of the second-stage regression are shown in Column (2) of Table 7. The regression coefficient for local CEO employment (localceo) and climate risk awareness (ClimateRisk) is 3.032, significant at the 1% level, consistent with the previous empirical findings. This result indicates that after accounting for endogeneity issues such as omitted variables, the conclusion that local CEO employment significantly increases corporate climate risk awareness remains unchanged, confirming the robustness of the earlier results.

Table 6. Instrumental Variables Method

VARIABLES	(1) firststage localceo	(2) secondstage ClimateRisk
Local_IV	0.728***	
	(32.343)	
localceo		3.032***
		(3.087)
SIZE	0.001	2.155***
	(0.179)	(15.401)
ROA	0.049	-4.454*
	(0.588)	(-1.699)
LEV	0.013	4.793***
	(0.434)	(4.991)
loss	-0.019	-1.144*
	(-1.042)	(-1.939)
Growth	-0.002**	-0.002
	(-2.065)	(-0.084)
SOE	0.075***	-1.876***
	(6.012)	(-4.667)
DUAL	0.063***	-0.665**
	(5.967)	(-1.977)
TOP1	-0.001***	0.020**
	(-3.136)	(1.992)
IB	-0.190**	-10.382***
	(-2.095)	(-3.581)
BSIZE	0.012	-1.844*
	(0.395)	(-1.929)
Separation	0.002**	0.037*
	(2.435)	(1.856)
Gender	0.000	0.051***
	(0.274)	(3.564)
MSH	0.106***	1.046
	(3.196)	(0.987)
Constant	0.273**	-44.938***
	(2.285)	(-11.658)
Observations	10277	10277
R-squared	0.147	0.242
Industry	Control	Control
Year	Control	Control
Underidentification test:		
Kleibergen-Paap rk L statistic	953.692***	
Weak identification test:		
Cragg-Donald Wald F statistic	1046.050	
Stock-Yogo critical value at 10% IV size	16.380	

4.4. Mechanism Verification

Although theoretical analysis and empirical tests have demonstrated that local CEO appointments can significantly enhance corporate climate risk awareness, the underlying logic has yet to be validated through empirical methods. Previous discussions suggest that locally appointed CEOs, driven by heightened hometown attachment and greater sensitivity to public scrutiny, leverage their corporate platforms to elevate corporate climate risk awareness, thereby supporting their hometown's long-term development. To validate this mechanism, this study empirically examines two dimensions of hometown attachment: Confucian cultural influence and local public oversight pressure.

4.4.1. Confucian culture

Confucian traditional culture, functioning as an informal system alongside formal institutions such as law and regulation, provides guidance for individual behavior along specific trajectories, subtly shaping the value orientations and actions of administrators[23]. Confucianism first advocates "affection for relatives," meaning prioritizing love for one's own family members and kinship clans. Passages in the Analects such as "Though the village road is long, the heart is near" and "The foundation of filial piety lies in affection for one's parents" both emphasize cherishing one's hometown and family members. Under such a Confucian culture that strongly emphasizes "parental affection" and "the way of filial piety and brotherly devotion," individuals develop a stronger propensity for kin altruism[24]. Therefore, when local CEOs operate in regions with a stronger Confucian ethos, they tend to prioritize maintaining bonds with surrounding communities. This attachment to their hometown makes them more likely to care about local climate risks and long-term development.

To examine the mechanism through which hometown attachment influences CEOs' local tenure and climate risk awareness, this study adopts the Confucian culture measurement approach proposed by Dou Junsheng et al.[25]. Specifically, it uses the natural logarithm of the number of Confucian temple relics within a 100-kilometer radius of a listed company's registered location, plus one, as an indicator of Confucian cultural intensity. The sample was divided into two groups based on the median of Confucian culture (CONF), with a value of 1 for samples above the median and 0 otherwise. The regression results are shown in Table 11, where Column (1) represents samples with a stronger Confucian cultural atmosphere, and Column (2) represents samples with a weaker Confucian cultural atmosphere. The results indicate that when the local Confucian cultural atmosphere is strong, the regression coefficient for localceo is significantly positive at the 1% level. Conversely, when the local Confucian cultural atmosphere is weak, the regression coefficient for localceo is not significant. This suggests that a stronger Confucian cultural influence can enhance local CEOs' attention to corporate climate risks.

Table 11. Examination of Confucian Cultural Mechanisms

VARIABLES	(1) Stronger Confucian Culture ClimateRisk	(2) Weaker Confucian Culture ClimateRisk
localceo	1.214***	0.473
	(2.93)	(1.04)
SIZE	1.470***	2.401***
	(7.15)	(11.45)
ROA	-7.055*	-0.080
	(-1.74)	(-0.03)
LEV	6.300***	4.713***
	(4.75)	(3.88)
loss	-1.877*	-0.578
	(-1.93)	(-0.73)
Growth	0.097	-0.006
	(0.66)	(-0.42)
SOE	-0.565	-2.687***
	(-1.03)	(-4.42)
DUAL	-0.151	-0.900*
	(-0.33)	(-1.75)
TOP1	0.033**	-0.007
	(2.35)	(-0.48)
IB	0.015	-22.470***
	(0.00)	(-6.18)
BSIZE	1.427	-4.683***
	(1.14)	(-3.38)
Separation	-0.014	0.104***
	(-0.52)	(3.91)
Gender	0.062***	0.050**
	(3.45)	(2.45)
MSH	3.453**	-0.356
	(2.24)	(-0.24)
Constant	-44.777***	-37.819***
	(-6.39)	(-6.16)
Observations	5,447	4,830
Adj.R^2	0.301	0.224
Industry	Control	Control
Year	Control	Control

4.4.2. Media Oversight

As a vital component of the economy, listed companies influence local development through multiple channels including capital, employment, and taxation. Consequently, their actions attract scrutiny and expectations from local governments, communities, and media. As the primary agent representing corporate legitimacy, the CEO's decisions can be viewed as signals sent outward on behalf of the company, directly embodying its image. Aligning with public expectations helps build a positive corporate image, enhancing public trust and goodwill toward the company. Moreover, in an era of heightened information transparency and widespread social media, the public can rapidly disseminate and amplify evaluations of corporate behavior, creating reputational pressure. Consequently, CEOs often proactively align with public expectations. Compared to non-local CEOs, local CEOs possess denser social networks in their regions of operation. Negative incidents are more likely to be rapidly amplified through familiar social channels, leading to condemnation from local governments, business partners, and personal networks. To mitigate reputational damage and the risk of relationship breakdowns, local CEOs are more inclined to proactively embrace social responsibility. They actively incorporate climate risk awareness and disclosure into corporate strategy to respond to local societal expectations[11].

To examine the role of media oversight in the relationship between CEO local tenure and corporate climate risk, this study draws on research by Li Zhibin et al.[26]. Using data from the China Research Data Service (CNRDS) Finance Database—specifically counts of positive, negative, and neutral media coverage—we construct a media oversight indicator using the Janis-Fadner coefficient (JF), as shown below.

$$\mathrm{J-F}\begin{cases}\dfrac{e^2-ec}{t^2} & if\ e>c\\ \dfrac{ec-c^2}{t^2} & if\ e<c\\ 0 & if\ e=c\end{cases}$$

Among these, e represents the number of positive media reports, c denotes the number of negative media reports, and t signifies the sum of positive and negative reports. The J-F coefficient ranges from -1 to 1. When positive reports about a company increase, the J-F coefficient approaches 1, indicating reduced media oversight pressure on the company. Conversely, as negative reports about a company rise, the J-F coefficient nears -1, signifying heightened media oversight pressure. This study divides the sample into two groups based on the median J-F coefficient, assigning a value of 1 when the coefficient falls below the median and 0 otherwise. The regression results are shown in Table 12, where Column (1) represents samples with higher media supervision pressure and Column (2) represents samples with lower media supervision pressure. The results indicate that when a company faces greater media oversight pressure, the regression coefficient for localceo is significantly positive at the 1% level. When media oversight pressure is low, the localceo coefficient is not significant. This suggests that local CEOs are more sensitive to media oversight pressure, meaning greater media scrutiny can enhance their attention to corporate climate risks.

Table 12. Local Media Oversight Mechanism Evaluation

	(1)	(2)
	Higher Media oversight	Lower Media oversight
VARIABLES	ClimateRisk	ClimateRisk
localceo	1.131***	0.650
	(2.71)	(1.48)
SIZE	2.141***	2.248***
	(10.56)	(9.83)
ROA	-5.224	-12.939***
	(-1.15)	(-2.87)
LEV	5.638***	3.774***
	(4.32)	(2.86)
loss	-1.268	-1.791*
	(-1.39)	(-1.95)
Growth	0.731	0.086
	(1.28)	(0.15)
SOE	-1.331**	-2.179***
	(-2.45)	(-3.77)
DUAL	-1.142**	-0.032
	(-2.43)	(-0.06)
TOP1	0.026*	0.017
	(1.94)	(1.20)
IB	-9.642**	-11.944***
	(-2.24)	(-2.72)
BSIZE	-0.784	-2.609**
	(-0.57)	(-1.96)
Separation	-0.014	0.094***
	(-0.47)	(3.06)
Gender	0.026	0.084***
	(1.50)	(4.17)
MSH	1.483	1.637
	(0.94)	(1.09)
Constant	-45.228***	-44.398***
	(-8.71)	(-8.97)
Observations	5,054	5,223
Adj.R^2	0.296	0.215
Industry	Control	Control
Year	Control	Control

4.5. Further analysis

4.5.1. Level of competition

In a fiercely competitive market environment, competitive pressures compel enterprises to demonstrate competitiveness across multiple dimensions. Companies that disclose climate risks and climate management information communicate their long-term strategic direction to stakeholders, thereby earning positive reputational capital and establishing a competitive edge[27]. Competitive defeat often culminates in the departure of the CEO. While non-local CEOs can relocate to companies in other regions after leaving, local CEOs' attachment to their hometown and personal geographic preferences make them less inclined to leave the area. Consequently, intensified competitive pressure exerts a greater impact on local CEOs, transforming climate risk management from an optional behavior into a necessary strategic action. This significantly heightens local CEOs' attention to climate risks.

To validate the role of competition intensity in the relationship between CEO regional tenure and climate risk attention, this study adopts the methodology of Liu Guanchun et al.[28] and Zhang Qianxiao et al.[29], using the Herfindahl Index to measure market competitiveness. The Herfindahl Index (HHI) calculates a company's market share within an industry based on its primary business revenue; a higher index value indicates lower competition intensity. The sample was divided into two groups based on the median HHI value: a value of 1 was assigned when the HHI was below the sample median, and 0 otherwise. The regression results are shown in Table 13, where Column (1) represents samples from regions with stronger competition, and Column (2) represents samples from regions with weaker competition. The results indicate that when regional competition is intense, the regression coefficient for localceo is significantly positive at the 5% level. Conversely, when regional competition is weak, the localceo coefficient is not significant. This suggests that heightened regional competition fosters greater attention to corporate climate risks among local CEOs.

Table 13. Heterogeneity Test of Competition Intensity

	(1)	(2)
	High level of competition	Low level of competition
VARIABLES	ClimateRisk	ClimateRisk
localceo	1.068**	0.516
	(2.35)	(1.29)
SIZE	2.258***	2.013***
	(9.27)	(11.21)
ROA	-9.613**	0.946
	(-2.37)	(0.35)
LEV	6.050***	3.907***
	(4.51)	(3.17)
loss	-1.641*	-0.952
	(-1.73)	(-1.20)
Growth	-0.008	0.090
	(-0.52)	(0.58)
SOE	-3.757***	0.259
	(-6.62)	(0.46)
DUAL	-1.653***	0.677
	(-3.25)	(1.47)
TOP1	0.019	0.016
	(1.39)	(1.14)
IB	-9.590**	-13.599***
	(-2.27)	(-3.40)
BSIZE	-3.966***	0.392
	(-2.86)	(0.30)
Separation	0.045*	0.048*
	(1.69)	(1.75)
Gender	0.059***	0.046***
	(2.90)	(2.68)
MSH	-2.831**	5.136***
	(-1.99)	(3.24)
Constant	-38.669***	-45.301***
	(-6.98)	(-10.01)
Observations	5,145	5,132
Adj.R^2	0.249	0.269
Industry	Control	Control
Year	Control	Control

4.5.2. Institutional Investors

Existing research has found that institutional investors possess stronger long-term profit incentives. Leveraging their information advantages[30], oversight capabilities, and industry expertise, they can effectively mitigate corporate myopia, promote green innovation, and advance sustainable development[31-33]. Specifically, institutional investors compel companies to prioritize environmental responsibility and green governance through active participation in corporate governance[34], implementation of exit threats[35], or private interventions[36], thereby increasing corporate investment in green technologies and clean innovations[33]. Thus, in companies with high institutional ownership, institutional oversight and guidance heighten CEO sensitivity to environmental issues, driving the integration of climate risk into strategic decision-making to achieve dual economic and environmental objectives. Local CEOs possess a stronger long-term development perspective and face greater reputational pressures compared to non-local CEOs. When institutional investors exert oversight and guidance pressure on companies, local CEOs exhibit higher sensitivity to such pressures than their non-local counterparts. Consequently, institutional investors can play a positive role in shaping local CEOs' attention to corporate climate risks.

To examine the role of institutional investor ownership in shaping local CEOs' attention to corporate climate risks, this study adopts the methodology of Song Jianbo[37] et al., dividing samples into two groups based on the median ownership level. A value of 1 is assigned when institutional investor ownership exceeds the median, and 0 otherwise. Institutional investor ownership data is sourced from the Guotai An database. The regression results are presented in Table 14. Column (1) represents samples with higher institutional investor ownership, while Column (2) represents samples with lower ownership. The results indicate that when a company has a higher proportion of institutional investor ownership, the regression coefficient for localceo is significantly positive at the 1% level. Conversely, when institutional investor ownership is lower, the regression coefficient for localceo is not significant. This indicates that institutional investor ownership promotes local CEOs' heightened attention to corporate climate risks.

Table 14. Testing for Heterogeneity Among Institutional Investors

	(1)	(2)
	High proportion of institutional investor holdings	Low proportion of institutional investor holdings
VARIABLES	ClimateRisk	ClimateRisk
localceo	0.959***	0.341
	(2.79)	(0.58)
SIZE	2.105***	2.134***
	(13.04)	(6.83)
ROA	-9.220**	-7.879
	(-2.17)	(-1.18)
LEV	3.472***	8.370***
	(3.02)	(4.31)
loss	-1.099	-2.224*
	(-1.48)	(-1.92)
Growth	0.514	0.277
	(1.20)	(0.36)
SOE	-1.787***	-1.093
	(-3.98)	(-0.67)
DUAL	-0.584	-0.407
	(-1.46)	(-0.69)
TOP1	0.049***	-0.075***
	(4.21)	(-3.39)
IB	-8.378**	-15.646**
	(-2.43)	(-2.47)
BSIZE	-2.332**	-0.446
	(-2.14)	(-0.22)
Separation	0.043*	0.091*
	(1.80)	(1.91)
Gender	0.054***	0.055**
	(3.12)	(2.12)
MSH	0.778	3.352*
	(0.56)	(1.85)
Constant	-41.921***	-43.043***
	(-9.73)	(-4.89)
Observations	7,232	3,045
Adj.R^2	0.287	0.201
Industry	Control	Control
Year	Control	Control

5. Summary

This study empirically examines the impact of local CEO appointments on corporate climate risk awareness using a sample of Shanghai and Shenzhen A-share listed companies in China from 2007 to 2023. Findings reveal: (1) Firms with local CEOs exhibit higher levels of climate risk awareness. This conclusion remains robust after undergoing a series of stability tests, including the Heckman two-stage method, placebo tests, and instrumental variable analysis. (2) Robustness tests support the above findings. Furthermore, in regions where local CEOs exhibit stronger hometown attachment and face greater media scrutiny, their local appointments correlate with heightened corporate attention to climate risks.(3) Further analysis indicates that this relationship is particularly pronounced in regions with higher levels of competition and among companies with a greater proportion of institutional investor holdings.

This study examines the influence of local CEOs on corporate climate risk awareness, revealing the pivotal role of hometown attachment in business decision-making. Consequently, it both complements and expands existing literature on identity economics hypotheses and corporate climate risk awareness, while offering valuable insights for corporate talent strategies. The hometown sentiment and local cultural identity of native CEOs prompt them to prioritize corporate social responsibility and sustainable development in decision-making. This trait not only heightens corporate awareness of climate risks but also enhances the company's reputation and competitiveness within the local community. Therefore, selecting native CEOs and strategically leveraging their positive hometown identification effect can significantly improve corporate climate risk management outcomes. Governments can also leverage local CEOs' hometown sentiments to advance public-private partnerships, such as establishing climate risk-sharing platforms to facilitate information exchange and resource integration. Corporate alliances led by local CEOs can serve as representative bodies, guiding local enterprises to prioritize climate risk mitigation. Such collective action not only strengthens regional resilience against climate risks but also promotes social stability.

References

[1] GEBHARDT M, SCHNEIDER A, SIEDLER F, et al. Climate reporting in the fast lane? The impact of corporate governance on the disclosure of climate-related risks and opportunities [J]. Business Strategy and the Environment, 2024, 33(7): 7253-72.

[2] SAUTNER Z, VAN LENT L, VILKOV G, et al. Firm-Level Climate Change Exposure [J]. The Journal of Finance, 2023, 78(3): 1449-98.

[3] BEN-AMAR W, MCILKENNY P. Board Effectiveness and the Voluntary Disclosure of Climate Change Information [J]. Business Strategy and the Environment, 2015, 24(8): 704-19.

[4] COTTER J, NAJAH M M. Institutional Investor Influence on Global Climate Change Disclosure Practices [J]. Social Science Electronic Publishing.

[5] HONEY D, AHSAN T, MIGLIORI S. The impact of governance quality on corporate climate risk disclosure: The role of the governance committee [J]. International Review of Financial Analysis, 2025, 98: 103901.

[6] REN S, WANG Y, HU Y, et al. CEO hometown identity and firm green innovation [J]. Business Strategy and the Environment, 2021, 30(2): 756-74.

[7] LAI S, LI Z, YANG Y G. East, West, Home's Best: Do Local CEOs Behave Less Myopically? [J]. The Accounting Review, 2020, 95(2): 227-55.

[8] Huang Zhen, Bu Guoling. High-Level Officials' Hometown Affiliation and Excessive Investment: Suppression or Encouragement [J]. Management Science.

[9] HIRSHLEIFER D, SHUMWAY T. Good Day Sunshine: Stock Returns and the Weather [J]. The Journal of Finance, 2003, 58(3): 1009-32.

[10] FULLILOVE M T. Psychiatric implications of displacement: contributions from the psychology of place [J]. Am J Psychiatry, 1996, 153(12): 1516-23.

[11] Li Shujuan, Xu Xianxiang. Identity and Economic Growth [J]. Economics Quarterly, 2016, 15(2): 22.

[12] Zhang Haofei. CEO Power, Individual Risk Preference, and R&D Investment [D]; Shandong University of Finance and Economics, 2021.

[13] Yan Ruosen, Zhou Ran. Non-Local CEOs and Corporate Innovation Investment: The Influence of Culture [J]. Economic Management, 2021, (2): 18.

[14] BERKMAN H, JONA J, SODERSTROM N. Firm-specific climate risk and market valuation [J]. Accounting, Organizations and Society, 2024, 112: 101547.

[15] PARK J H, NOH J H. Relationship between Climate Change Risk and Cost of Capital [J]. Global Business & Finance Review, 2018, 23(2): 66-81.

[16] BALVERS R, DU D, ZHAO X. Temperature shocks and the cost of equity capital: Implications for climate change perceptions [J]. Journal of Banking & Finance, 2017, 77: 18-34.

[17] GINGLINGER É, MOREAU Q. Climate risk and capital structure [Z]. 9th Financial Engineering and Banking Society international Conference. Prague, Czech Republic. 2019

[18] LI Q, SHAN H, TANG Y, et al. Corporate Climate Risk: Measurements and Responses [J]. The Review of Financial Studies, 2024, 37(6): 1778-830.

[19] Du Jian, Xu Xiaoyu, Yang Yang. Does Climate Risk Affect Equity Capital Cost? Empirical Evidence from Text Analysis of Annual Reports of Chinese Listed Companies [J]. Financial Review, 2023, 15(3): 19-46.

[20] Wu Yaqian, Li Jiyuan, Wang Chengfang. Self-Restraint and Restoration of Rituals: The Relationship Between Local Board Chair Appointments and Corporate Violations [J]. Accounting Research, 2024, (4): 63-79.

[21] Li Jiyuan, Deng Yingwen, Zhang Min. Local CEOs and Corporate Tax Avoidance: Hometown Affiliation or Rent-Seeking? [J]. Accounting Research, 2020, (7): 12.

[22] HENDERSON M T, HUTTON I, JIANG D, et al. Lawyer CEOs [J]. Journal of Financial and Quantitative Analysis, 2025, 60(2): 580-616.

[23] Cheng Bo, Xiong Ting, Lin Minhua. Confucian Traditional Culture and Corporate Misconduct: An Analysis Based on Chinese Family-Owned Listed Companies [J]. Economic Theory and Management, 2018, (10): 72-86.

[24] Cheng Minying, Chen Menglu, Liu Jun. Kinship Altruism in Confucian Culture and Family Business Succession: An Asset Impairment Study [J]. Accounting Research, 2023, (10): 101-14.

[25] Dou Junsheng, Huang Yang, You Xialei. Innovation Factors in Confucian Culture [J]. Economic Management, 2024, 46(10): 47-65.

[26] Li Zhibin, Shao Yumeng, Li Zongze, et al. ESG Disclosure, Media Oversight, and Corporate Financing Constraints [J]. Scientific Decision Making, 2022.

[27] TAMIMI N, SEBASTIANELLI R, MURPHY P, et al. Transparency among S & P 500 companies: an analysis of ESG disclosure scores [J]. Management Decision, 2017: 00-.

[28] Liu Guanchun, Ye Yongwei, Zhang Jun. Social Insurance Contributions, Corporate Liquidity Constraints, and Employment Stability: A Quasi-Natural Experiment Based on the Implementation of the Social Insurance Law [J]. China Industrial Economics, 2021, (5): 152-69.

[29] Zhang Qianxiao, Duan Yixue. Digital Empowerment, Industrial Chain Integration, and Total Factor Productivity [J]. Economic Management, 2023, 45(4): 5-21.

[30] Du Yong, Sun Fan, Deng Xu. Common Institutional Ownership and Corporate Earnings Management [J]. China Industrial Economics, 2021, (6): 155-73.

[31] Li Wei'an, Li Bin. Empirical Study on the Effects of Institutional Investor Involvement in Corporate Governance: An Empirical Study Based on CCGINK [J]. Nankai Management Review, 2008, 11(1): 4-14.

[32] Zhu Lei, Wang Man, Wang Chunyan, et al. Shareholdings of Heterogeneous Institutional Investors and Corporate Green Innovation [J]. Accounting Journal, 2023, 54-63.

[33] Zhang Yun, Lü Xian, Han Yun. Institutional Investors Driving Corporate Green Governance: Supervision Effects and Underlying Mechanisms [J]. Management World, 2024, 40(4): 197-214.

[34] CHEN X, HARFORD J, LI K. Monitoring: Which institutions matter? [J]. Journal of Financial Economics, 2007, 86(2): 279-305.

[35] EDMANS A, MANSO G. Governance Through Trading and Intervention: A Theory of Multiple Blockholders [J]. Social Science Electronic Publishing, 2011, 24(7): 2395-428.

[36] JOSEPH, A., MCCAHERY, et al. Behind the Scenes: The Corporate Governance Preferences of Institutional Investors [J]. The Journal of Finance, 2016, 71(6): 2905-32.

[37] Song Jianbo, Su Zihao, Yang Donghe. Has Cross-Border Supervision by the China Securities Regulatory Commission Enhanced the Quality of Accounting Information in Listed Companies? [J]. Accounting Research, 2025, (4): 16-30.