Research of the Relationship between Corporate Social Responsibility and Acquisition Performance in Cross-border Acquisitions by Chinese Listed Companies: A View from Legitimacy Theory

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Abstract: This paper focuses the relationship between corporate social responsibility (CSR) and performance of cross-border acquisitions (CBAs) from a legitimacy perspective. With a sample of Chinese CBAs, the empirical analysis found that there is a U-shaped relationship between CSR levels and CBA performance. Specifically, due to changes and influences in legitimacy, CBA performance initially decreases and then increases with the enhancement of CSR. Further analysis reveals that the characteristics of the host country and the ownership structure of the acquiring company significantly moderate the relationship between CSR and CBA performance. This research enriches the understanding of factors influencing CBA performance in emerging market firms from the CSR perspective and enhances the institutional theory's explanation of Chinese firms' CBA behavior and performance. Additionally, it offers practical guidance for the strategic decision-making of Chinese enterprises in CBAs.

Keywords: Legitimacy; Corporate Social Responsibility (CSR); Performance of Cross-border Acquisitions; Ownership Structure of the Acquiring Company; Characteristics of the Host Country

1. Introduction

In recent years, Chinese companies have been actively engaging in overseas acquisitions, but they have also faced significant challenges, with poor performance in CBAs being a persistent research focus. CBAs are one of the key avenues for Chinese enterprises to "go global" and acquire essential strategic resources abroad, such as technology, knowledge, and brands[1]. Notably, emerging market countries, including China, encounter a critical challenge of legitimacy during the internationalization process, particularly in CBAs[2]. To address issues of insufficient legitimacy and declining CBA performance, Chinese companies have begun to adopt strategies aimed at enhancing their CSR levels as a means to increase both legitimacy and CBA performance. While scholars have increasingly focused on the role of CSR in corporate acquisitions in recent years[3], a consensus has yet to be reached. Therefore, this study aims to analyze the influence of CSR on CBA performance based on the legitimacy theory and further examine the moderating effects of external and internal factors, specifically the characteristics of the host country and the ownership structure of the acquiring company, on this relationship.

2. Theory and Hypotheses

2.1 CSR and CBA Performance

According to institutional theory, in the context of globalization, different institutional environments can exert varying influences on organizations[4], their performance, or their technology, which in turn affects organizational decision-making[5]. Research on internationalization within institutional theory indicates that the level of CSR directly impacts **the legitimacy of Chinese enterprises during** cross-border acquisitions, thereby influencing acquisition performance. Specifically: First, in the early stages of low CSR, limited resource investment yields low-cost advantages. Second, as CSR levels rise, the associated costs increase, negatively affecting acquisition performance, with limited positive impact on stakeholders. Third, after a certain level of CSR investment, the resulting benefits can outweigh costs, leading to improved CBA performance. Thus, we propose the research hypothesis:

H1: CSR levle of Chinese enterprises is U-shaped related to cross-border acquisition performance, where performance first declines and then improves as CSR levels increase.

2.2 Moderating Role of Host Country Characteristics

Host country characteristics have long been a significant focus in the study of corporate internationalization. Differences in the developmental levels of host countries directly affect the meanings, outcomes, and performance of corporate social responsibility (CSR). As the Belt and Road Initiative expands, the target markets for cross-border acquisitions initiated by Chinese enterprises are increasingly diverse, presenting substantial regional environmental differences. It is essential to examine whether these regional environmental disparities influence the role of CSR in CBAs. On one hand, institutional theory suggests that differences in the host country's institutional environment directly impact corporate performance. The greater the institutional distance, the more challenging it becomes for Chinese enterprises to comprehend the foreign institutional environment and related legitimacy requirements, complicating optimal decision-making due to increased complexity, conflict, uncertainty, and information asymmetry. On the other hand, disparities between the institutional environments of developed and developing countries lead to significant differences in external legitimacy faced by Chinese firms during CBAs, with varying perceptions of CSR and related regulations across regions. Thus, we propose the second research hypothesis:

H2: Host country characteristics moderate the relationship between CSR and CBA performance, such that in developed countries, CSR has a more significant impact on CBA performance, with its positive effects manifesting more rapidly.

2.3 Moderating Role of Ownership Structure of the Acquiring Company

In the context of China's unique circumstances, state-owned enterprises (SOEs) and non-state-owned enterprises (NSOEs) are very different in terms of their social responsibility performance. Consequently, the ownership structure of Chinese enterprises profoundly influences their strategic behavior and performance, making it one of the most crucial variables in cross-border acquisitions. Some scholars argue that non-state-owned enterprises have higher acquisition success rates and better performance compared to SOEs. Higher proportions of state ownership in the acquiring company can weaken innovation performance. However, other scholars suggest that institutional distance can enhance the positive impact of SOEs' cross-border acquisitions on industrial technological innovation. The differing ownership characteristics of Chinese enterprises lead to distinct purposes and behaviors in their cross-border acquisition activities, directly affecting their legitimacy in foreign acquisitions. SOEs, as semi-political organizations with non-economic objectives, have long been tasked with enhancing social welfare, thus serving as the primary drivers of CSR. In contrast, while NSOEs may also have some political motivations in fulfilling their social responsibilities, they tend to prioritize economic benefits in the long run. Therefore, we propose the third hypothesis as below:

H3: The ownership structure of the acquiring company moderates the relationship between CSR and CBA performance, such that CSR has a more significant impact on CBA performance in state-owned enterprises, with its positive effects manifesting more rapidly.

3. Methodology

3.1 Sample Selection

This study focuses on cross-border acquisition events involving in the Wind database from 2011 to 2021. To address missing data, annual reports of companies were used for supplementation and refinement. The sample selection criteria were limited to completed acquisitions of listed companies, resulting in a final dataset of 446 acquisition samples.

3.2 Variables and Data

3.2.1 Dependent Variable

Cross-border Acquisition Performance: This study adopts ROE to measure CBA performance[6]. For robustness checks, ROA is used in place of ROE[7]. Both ROE and ROA data are sourced from the Wind database.

3.2.2 Independent Variable

CSR: This study utilizes the professional evaluation system for CSR provided by Hexun Information Network. This system integrates information from companies' CSR reports and annual financial reports, scoring companies across five dimensions: shareholder responsibility, employee responsibility, supplier responsibility, customer and consumer rights, and environmental and social responsibility[8]. A higher score indicates better corporate social responsibility performance.

3.3 Moderating Variables

① Host Country Characteristics

Host country characteristics refer to whether a country is developed or not, based on definitions provided by the World Bank, International Monetary Fund, United Nations Development Programme, and the CIA. If the host country is a developed nation, it is assigned a value of 1; otherwise, it is classified as a developing country and assigned a value of 0[9].

② Ownership Structure of the Acquiring Company

This study categorizes ownership in China into SOEs and NSOEs[10]. SOEs are defined as companies whose actual control lies with the central or local government. SOEs are assigned a value of 1, while 0 for NSOEs. This data is sourced from the Wind database.

3.4 Control Variables

Based on existing literature, control variables closely related to cross-border acquisition performance are selected, including environmental factors (industry consistency, high-tech industry, resource-sensitive industries), firm factors (CBA experience, debt-to-asset ratio, shareholding ratio of the largest shareholder, firm age, firm size), and transaction factors (acquisition ratio, acquisition scale). Notably: ① Industry consistency is classified according to the China Securities Regulatory Commission. ② The definition of high-tech industry is sourced from the National Bureau of Statistics' 2002 Classification of High-Tech Industries, with specific industries detailed in Appendix A. ③ Resource-sensitive industries are defined as including energy, mining, steel, materials, defense contracting, telecommunications, media, insurance, finance, and public utilities. ④ Data for firm and transaction factors are also sourced from the Wind database.

A summary of variable categories, names, symbols, definitions, and reference sources is provided in Table 1.

Table 1. Variable Categories, Names, Symbols, Definitions, and Reference Sources

Category		Variable	Symbol	Description
Dependent Variable		Cross-Border Acquisition Performance	ROE	ROE_{t+1}-sector ROE_{t+1}-(ROE_{t-1}-sector ROE_{t-1})
Independent Variable		Corporate Social Responsibility Index	CSR	Evaluation score from Hexun, with higher scores indicating better CSR performance.
Moderating Variable		Host Country Characteristics	DEV	Indicates whether the host country is developed (1) or not (0).
		Ownership Structure of the Acquiring Firm	SOE	Indicates whether the acquiring company is state-owned (1) or not (0).
Control Variable	Environmental Factors	Industry Relevance	IND	Assigned 1 for same industry acquisitions, 0 otherwise.
		High-Tech Industry	HIT	Indicates whether the acquired company is in the high-tech industry (1) or not (0).
		Resource-Sensitive Industries	RES	Indicates whether the acquired company is in a resource-sensitive industry (1) or not (0).
	Enterprise Factors	Acquisition Experience	EXP	Indicates whether the acquiring company has CBA experience (1) or not (0).
		Debt-to-Asset Ratio	LEV	Measures the acquiring company's debt-to-asset ratio.
		Shareholding Ratio of the Largest Shareholder	TOP1	The shareholding ratio of the largest shareholder one year before the acquisition.
		Enterprise size	SIZ	Total assets of the firm one year before the acquisition.
		Enterprise Age	AGE	Difference between the acquisition completion year and the firm's establishment year.

	Transaction Factors	Relative Size	RSIZ	Acquisition transaction amount divided by the acquiring company's total assets.
		Acquisition Ratio	PER	Percentage of shares acquired out of the total shares of the acquired company.

4. Empirical Results Analysis

This study conducted regression analysis using Stata. Prior to the regression, the following treatments were applied: (1) Winsorization of continuous variables was performed to eliminate the impact of outliers on the results. (2) Centering of interaction terms was applied to mitigate the influence of multicollinearity. Table 2 reports all regression results. Model 1 presents the regression analysis results that include only control variables.

4.1 Analysis of the U-shaped Relationship between Corporate Social Responsibility and Performance of Cross-border Acquisitions

Model 2 introduces the explanatory variables to validate Hypothesis 1. The results show that the regression coefficient for CSR is -0.203, significant at the 5% level, while the coefficient for CSR^2 is 0.002, significant at the 10% level. These results indicate a positive U-shaped relationship between corporate social responsibility and performance of cross-border acquisitions, thereby confirming Hypothesis H1.

4.2 Analysis of the Moderating Variables on the U-shaped Relationship between Corporate Social Responsibility and Performance of Cross-border Acquisitions

① Analysis of the Impact of Host Country Characteristics on the U-shaped Relationship

Model 3 incorporates the interaction term, revealing the influence of host country characteristics on the U-shaped relationship between corporate social responsibility and performance of cross-border acquisitions. The interaction term $CSR^2 \times DEV$ is significantly positive at the 1% level (coefficient = 0.009), supporting Hypothesis 2. This suggests that acquisitions occurring in developed countries positively moderate the U-shaped relationship between corporate social responsibility and performance of cross-border acquisitions.

② Analysis of the Impact of Ownership Structure of the Acquiring Company on the U-shaped Relationship

Model 4 shows the moderating effect of the ownership structure of the acquiring company on the relationship between corporate social responsibility and performance of cross-border acquisitions. The interaction term $CSR^2 \times SOE$ is significantly positive at the 1% level (coefficient = 0.022), indicating that when acquisitions occur in developed countries, the ownership structure of the acquiring company plays a moderating role in the U-shaped relationship between corporate social responsibility and performance of cross-border acquisitions.

Table 2. Regression analysis results of this research

Variables	Model 1	Model 2	Model 3	Model 4
PER	1.327	1.427*	1.284	1.504*
	(1.580)	(1.705)	(1.587)	(1.856)
SIZ	0.049	0.296	0.294	0.232
	(0.183)	(1.065)	(1.089)	(0.822)
AGE	0.096	0.093	0.113*	0.086
	(1.632)	(1.572)	(1.963)	(1.502)
TOP1	-0.006	0.813	1.703	2.217
	(-0.003)	(0.407)	(0.879)	(1.136)
RSIZ	0.496	2.048	1.210	3.063
	(0.205)	(0.844)	(0.516)	(1.265)
LEV	1.129	0.015	-0.725	0.282
	(0.613)	(0.008)	(-0.395)	(0.152)
IND	-0.453	-0.476	-0.322	-0.701
	(-0.735)	(-0.773)	(-0.542)	(-1.173)
HIT	0.272	0.158	0.056	-0.290
	(0.478)	(0.278)	(0.101)	(-0.519)
RES	0.198	0.065	0.231	-0.203
	(0.320)	(0.104)	(0.384)	(-0.338)
EXP	-0.084	-0.108	0.215	-0.124
	(-0.139)	(-0.179)	(0.365)	(-0.211)
CSR		-0.203**	-0.144*	-1.355***
		(-2.286)	(-1.672)	(-6.672)
CSR^2		0.002*	0.001	0.016***
		(1.653)	(0.679)	(6.351)
DEV			2.502	
			(0.865)	
CSR×DEV			-0.353*	
			(-1.882)	
CSR^2×DEV			0.009***	
			(3.488)	
SOE				27.936***
				(6.047)
CSR×SOE				-1.729***
				(-6.109)
CSR^2×SOE				0.022***
				(6.309)
R^2	0.096	0.122	0.226	0.260

5. Research Conclusions and Implications

This study analyzes the impact of CSR on the performance of cross-border acquisitions from the perspective of legitimacy, alongside the moderating roles of ownership structure and host country characteristics. The findings indicate that: (1) there is a U-shaped relationship between CSR and cross-border acquisition performance, where performance first declines and then increases as CSR levels rise; (2) host country characteristics moderate the positive U-shaped relationship between CSR and acquisition performance; and (3) the ownership structure of the acquiring company also moderates this relationship.

The theoretical contributions of this research are as follows: First, it examines how CSR levels influence cross-border acquisition performance, enriching the existing literature on factors affecting the performance of emerging market firms in such acquisitions. While previous studies often focused on specific factors at the corporate, environmental, or transaction levels, few have addressed the impact of CSR on acquisition performance, making this analysis necessary given the recent emphasis on CSR in both business and academic circles. Second, interpreting the relationship between Chinese CSR and cross-border acquisition behavior from a legitimacy perspective enriches institutional theory’s explanations of such behavior and performance in emerging markets. Traditional analyses typically rely on stakeholder or shareholder theories, which may not be applicable in the Chinese context due to the relatively late development of CSR practices and the voluntary nature of existing regulations. Many firms view CSR as a means to gain legitimacy or mask true profitability, making a legitimacy-focused analysis more relevant. Finally, by introducing two moderating variables—ownership structure at the firm level and host country characteristics (economic development level) at the environmental level—this study enriches the understanding of CSR's relationship with acquisition performance. Existing literature often directly analyzes CSR’s effects on acquisition performance without considering the U-shaped relationship or other moderating factors. The empirical results show significant differences in performance based on the ownership structure of the acquiring company and the economic development level of the host countries involved.

This study offers several managerial insights: On one hand, Chinese companies engaging in cross-border acquisitions must recognize that CSR can have varying impacts in different target regions. Therefore, they should consider their CSR levels and future development needs when making acquisition decisions and setting expectations. Due to the positive U-shaped relationship, acquisitions initiated in developed countries can more quickly influence stakeholders through CSR investments, enhancing legitimacy and acquisition performance. Achieving a certain level of CSR creates a differentiated advantage that competitors cannot easily imitate. In contrast, in developing countries, where social systems are less robust and CSR is often overlooked, more resources may be required to achieve desired effects, necessitating careful decision-making. On the other hand, companies of different ownership structures experience varying benefits from CSR investments. SOEs tend to gain stakeholder trust more easily through CSR efforts, which can improve legitimacy and acquisition performance. Therefore, the government should continue to support SOE reforms and implement positive policies to bolster their international competitiveness. SOEs should maintain their CSR advantages to enhance legitimacy and performance in acquisitions. Non-state-owned enterprises need to invest more heavily in CSR to gain stakeholder trust and improve legitimacy and performance. They should tailor their CSR actions to their specific situations to balance acquisition performance and legitimacy, recognizing that only with sufficient investment can they achieve the expected returns.

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