

Cross-border M&As, Complements or Substitutes for Emerging Economy Multinational Enterprises' Innovation Performance? A Resource Dependency Logic

Xiaoting Hu, Yuchen Gao, Peipei Yang, Wenjing Lyu

Abstract

Prior research suggests that emerging economy multinational enterprises (EMNEs) use cross-border mergers and acquisitions (M&As) as a springboard to compensate for innovation capability voids and enhance global competitiveness. However, inconsistent conclusions regarding the relationship between cross-border M&As and EMNEs' innovation performance exist. This can be attributed to the fact that some EMNEs use cross-border M&As as complements to improve innovation, while others acquire needed innovations through cross-border M&As, treating them as substitutes for internal innovation activities. Drawing on resource dependence theory (RDT), this study argues that the level of interdependence between EMNEs and the government and domestic customers matters. This study uses propensity score matching (PSM) with a difference-in-differences (DID) analysis on Chinese listed manufacturing firms between 2008 and 2017. The results suggest that the higher the dependence of EMNEs on the government and the domestic market, the higher likelihood that EMNEs leverage M&As as complements to improve innovation performance. However, these effects are weakened by the alternative strategies employed by EMNEs, such as political connections and cost-leading strategies.

Keywords: *Innovation performance; cross-border M&As; interdependence; resource dependence theory; EMNEs*

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1 INTRODUCTION

Cross-border mergers and acquisitions (M&As) have been widely employed by emerging economy multinational enterprises (EMNEs) to seek strategic assets globally (Dunning & Lundan, 2008; Liang et al., 2022; Luo & Tung, 2007, 2018). However, the impact of cross-border M&As on EMNEs' innovation performance remains inconclusive (Anderson et al., 2015; Awate et al., 2012). Some studies have found that cross-border M&As improve the innovation performance of Chinese EMNEs (e.g., Elia et al., 2020), while others suggest that EMNEs still lag in innovation capabilities due to the use of cross-border M&As as a substitute for their innovation activities (e.g., Awate et al., 2012).

In response to these inconsistent conclusions, prior research has paid much attention to factors such as the knowledge relatedness between acquirer and target firms (Makri et al., 2010),

institutional difference between home and host countries (Elia et al., 2020), and post-acquisition integration strategies (Liu & Woywode, 2013). However, the fact that EMNEs motivate leveraging cross-border M&As to either complement or substitute their innovation has been neglected. During the post-acquisition phase, EMNEs face a strategic choice: they can facilitate knowledge transfer and integration to strengthen their innovation performance, or they may capitalize on their cost advantages in production and manufacturing (Gao et al., 2010), and outsource more innovation activities to target firms. Firms use the former as a complement means, while the latter plays a substitute role.

Drawing on the resource dependence theory (RDT), we argue that the external interdependence of EMNEs plays a crucial role in determining the choice. RDT posits that organizational survival and success are influenced by their access to vital resources controlled by external entities (Pfeffer & Salancik, 1978). To mitigate constraints and alleviate power disadvantage resulting from dependence, managers take actions such as M&As, vertical integration, and political initiatives (Pfeffer & Salancik, 1978). Hence, RDT has been widely used to explain the motives of M&As in the pre-acquisition phase (e.g., Deng & Yang, 2015; Pfeffer, 1972)

In this study, we argue that EMNEs can leverage cross-border M&As as complements or substitutes to influence post-acquisition innovation performance, and thus manage their dependence on external resource providers, particularly the government and the domestic market, which are the main resource providers in emerging economies (Adomako et al., 2021; Lin et al., 2021; Ma & Hu, 2021; Wang et al., 2018; Zulu-Chisanga et al., 2021). Moreover, we examine the contingencies of the relationship if acquiring EMNEs already have other initiatives to manage that interdependence or reduce their power disadvantage, such as building political connections and adopting a cost leadership strategy.

To test our arguments, we conduct an empirical analysis, using a sample of Chinese listed manufacturing firms from 2008 to 2017, with the PSM-DID method. The findings reveal a positive relationship between acquiring firms' dependence on the government and their innovation performance improvement through M&As, which serve as complements rather than substitutes. However, this relationship is weakened when political affiliations exist within the top management team (TMT). Furthermore, acquiring firms' dependence on the domestic market positively influences their post-M&A innovation performance, suggesting that firms leverage M&As as complements in this situation. But this effect is weakened when they possess a stronger cost leadership advantage.

Our findings make important contributions to existing studies in the field of international business (IB) and RDT literature. First, we shed light on previously overlooked factors that determine the acquiring firms' choice between using cross-border M&As as complements and substitutes for their innovation. These findings not only enrich our understanding of the mechanism of cross-border M&As on the innovation performance of EMNEs but also provide an opportunity to reconcile inconsistent research findings. Second, we extend RDT to elucidate the innovation

performance and competitiveness of acquiring firms after M&As, rather than predicting why and whether M&As occur. Finally, our findings have important practical implications for both firms and policymakers.

2 THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1 The RDT logic and innovation performance of Chinese multinationals

Numerous studies have investigated the relationship between cross-border M&As and the innovation performance of EMNEs (Anderson et al., 2015; Awate et al., 2012). Nevertheless, the conclusions remain inconclusive (Cassiman et al., 2005; Colombo & Rabbiosi, 2014). Some studies have attempted to reconcile the mixed conclusions through different theoretical lenses, such as the resource-based view (e.g., Capron & Mitchell, 1998), organizational learning theory (e.g., Sears, 2018), and institutional theory (e.g., Meyer & Peng, 2016). However, RDT has been largely overlooked.

The core idea of RDT is that organizations are interdependent and constrained by their external environment, as they need to obtain critical resources from other organizations to survive and succeed (Casciaro & Piskorski, 2005; Chae et al., 2022; Wu et al., 2023). To reduce environmental interdependence and uncertainty, and strengthen their competitive position, organizations usually adopt various actions like conducting M&As and building political connections to control critical resources needed by themselves (Dong et al., 2024; He et al., 2025; Pfeffer & Salancik, 1978; Ulziisukh & Wei, 2022). Hence, RDT has been widely used to explain acquiring firms' motives for engaging in M&As in the pre-acquisition phase (e.g., Lin, 2018; Pfeffer, 1972). However, few studies explore how acquiring firms' external interdependence influences their post-acquisition decisions.

Drawing upon the RDT, we argue that EMNEs' choice to leverage cross-border M&As for innovation performance improvement is contingent upon the constraints of the domestic environment, such as the domestic market and government, the most influential resource providers for firms in emerging economies (Adomako et al., 2021; Ma & Hu, 2021; Zulu-Chisanga et al., 2021). Given that EMNEs often operate at a power disadvantage due to their dependence on these entities, they have strong incentives to reduce the influence of the government and domestic market over their operations. Moreover, the degree of this motive could be influenced by the presence of alternative strategies that acquiring firms utilize to address their external interdependence.

2.2 Dependence on the Government

In emerging economies, governments serve as providers of critical resources for firms, often through direct intervention in resource allocation and economic development—a common phenomenon in these contexts (Cuervo-Cazurra et al., 2019; Guo et al., 2017). Government policies, such as market regulation, tax incentives, and labor laws, also exert a substantial influence on firms, including market share, entry and exit barriers, cost structures, and revenue streams

(Lester et al., 2008). EMNEs' dependence on the government often results in power disadvantages. Consequently, EMNEs have strong incentives to either reduce government control over their operations or increase their power over the government.

In the context of China's pursuit of economic upgrading and innovation-driven development, innovations have become a critical resource for the government (Gao & Yuan, 2022; Liang & Li, 2023; Wang et al., 2023). Firms are essential actors in implementing innovations and achieving policy objectives (Shao & Chen, 2022; Wu et al., 2022). Thus, acquiring firms are likely to use cross-border M&As as complements to enhance their innovation performance, which can increase the government's dependence on them and ultimately strengthen their own bargaining power (Sun et al., 2010).

Moreover, from the RDT, firms that rely heavily on the government are more susceptible to state intervention and regulatory constraints (Pfeffer & Salancik, 1978). However, the goals of the government often conflict with the market logic-driven strategies that dominate firms' development (Guo et al., 2017). When EMNEs improve their innovation performance through cross-border M&As, government dependence on these firms increases, thereby strengthening the firms' bargaining power and affording them greater flexibility to operate according to their market logic. Otherwise, firms have to comply with government directives and allocate resources to fulfill the government requirements, which may be not conducive to achieving their own market-oriented goals and enhancing their competitiveness in the market.

Based on this discussion, we propose the following hypothesis:

Hypothesis 1: Chinese acquiring firms' innovation performance is more likely to improve through cross-border M&As when their dependence on the government is higher.

We delve deeper to examine the boundary conditions of the relationship between cross-border M&As and EMNEs' innovation performance. Specifically, we argue that firms' political connections weaken this relationship. Firms can establish political connections with government officials by appointing former government officials as directors or having TMT members serve in the Chinese People's Congress (CPC) (e.g., Kotabe et al., 2011; Krammer & Jimenez, 2020). These strategies are common and widely employed by EMNEs to manage their dependence on the government.

Empirical evidence suggests that political connections provide firms privileged access to critical resources and knowledge held by the government. For example, Kotabe et al. (2011) found that Chinese multinationals benefit from their political connections with government officials, which provide them access to critical resources and knowledge held by the government. These resources include financial support for trial-and-error experiments, opportunities to collaborate with universities and research institutions, and access to strategic information. Similarly, Sun et al. (2010) found that during the period spanning from the 1980s to the 2000s, foreign automotive firms actively embedded themselves in the local political networks to obtain strategic resources and information from the Chinese government. Given the advantages of political connections,

acquiring firms can reduce their dependence on the government. Their motivation to leverage cross-border M&As as complements to improve their innovation performance would be weakened.

Hence, we hypothesize:

Hypothesis 2: Chinese acquiring firms' political connections will negatively moderate the effect of their dependence on the government on their innovation performance improvement through cross-border M&As.

2.3 Dependence on the Domestic Market

The degree of dependence on domestic customers is a crucial factor influencing firms' bargaining power, profitability, and competitive strategies, making customers an important source of environmental constraints for firms (Chaithanapat et al., 2022; Huang et al., 2023; Xie et al., 2021). We argue that acquiring firms are motivated to leverage cross-border M&As to improve their innovation performance. On the one hand, both individual and corporate customers in the domestic market have increasingly high expectations for product and service innovation. Improving the innovation performance of acquiring firms is essential to accurately identify, understand, and respond to changes in domestic customer demand on time, thereby increasing the non-substitutability of their products and services and improving their bargaining power. This exerts pressure on acquiring firms to improve their innovation performance through cross-border M&As (Li et al., 2018).

On the other hand, the complexity of domestic consumer demand is particularly high in emerging markets such as China, where significant economic heterogeneity, regional disparities, varying levels of development, and diverse consumer groups create a fragmented market landscape (Buckley et al., 2018). When firms offshore innovation to others, challenges may arise, such as the issue of double-layered acculturation (Barkema et al., 1996), which can hinder R&D personnel from accurately interpreting domestic market needs. Furthermore, domestic customer demand is highly dynamic. If innovation activities are outsourced to others, delays in communication due to geographical distance and other barriers may prevent firms from effectively adapting to evolving consumer preferences. In this situation, Chinese acquiring firms are more likely to leverage cross-border M&As as complements to enhance their own innovation performance. Hence, we posit the following hypothesis:

Hypothesis 3: Chinese acquiring firms' innovation performance through cross-border M&As is more likely to improve when their dependence on the domestic market is higher.

We further investigate the influence of alternative strategies for managing acquiring firms' dependence on the domestic market and their impact on the relationship between this dependence and innovation performance. We mainly examine the cost leadership strategy, a widely adopted approach among Chinese acquiring firms to manage their reliance on the domestic market (Gao et al., 2010; Rugman & Li, 2007; Zhu & Zhu, 2016). We propose that it can weaken the aforementioned relationship, as it serves as an alternative mechanism for increasing customer

dependence on acquiring firms without necessarily enhancing innovation.

First, firms highly dependent on the domestic market seek innovation through M&As to differentiate themselves and reduce competitive pressures in their home markets. However, when firms have strong cost leadership advantages that help them attract distinct customer bases (Banker et al., 2014; Sitanggang & Absah, 2019), they would face greater barriers in transitioning to innovation-driven strategies through cross-border M&As, as their primary competitive focus remains on meeting the low-cost demands of domestic customers. Additionally, these firms may experience core rigidity stemming from deeply embedded cost-based competencies (Leonard-Barton, 1992), which reinforces their reliance on a cost-driven approach rather than shifting toward innovation-based strategies when engaging in cross-border M&As.

Second, the primary competitive strategy of firms with strong cost leadership advantages is usually based on efficiency. Instead of internalizing external innovation, these firms are more likely to use M&As as a means to optimize production efficiency, weakening the extent to which domestic market dependence drives innovation performance improvement. This effect is particularly evident in how firms structure post-M&A integration. Cost-leading acquiring firms often adopt a comparative advantage-based specialization strategy, wherein they relocate manufacturing activities to China while relying on target firms for innovation (Buckley et al., 2014). As a result, manufacturing activities are transferred to China after the M&As, while other activities with higher value-added activities remain in the target (Rui & Yip, 2008).

In this scenario, the positive relationship between domestic market dependence and innovation performance improvement through M&As is weaker as cross-border M&As serve as a substitute for the acquiring firm's innovation. Thus, we hypothesize the following:

Hypothesis 4: Chinese acquiring firms' cost leadership advantage will negatively moderate the effect of their dependence on the domestic market on their innovation performance improvement through cross-border M&As.

3 METHODOLOGY

3.1 Sample

We used panel data on Chinese listed manufacturing firms from 2008 to 2017 to examine our hypotheses. We collected cross-border M&A events from the WIND economic database, the Chinese Research Data Services Platform, and corporate annual reports. To control the confounding effects, we first deleted the data if the targets were holding companies from tax havens such as the Cayman and the Virgin Islands. Then, the corresponding data were also excluded if the acquiring firms received special treatment, or their industry codes were changed during the research periods. Ultimately, we obtained a final sample of 289 cross-border M&As completed by 211 acquiring firms. Following Desyllas and Hughes (2010), we count only one M&A observation in a given year even if a firm makes more than one acquisition in that year.

Financial and basic information of acquiring firms was obtained from the WIND database. Following the existing literature (Ahuja & Katila, 2001; Zhao, 2009), the innovation performance of a firm was measured by patent application counts, and the patent data were obtained from CCER and China Stock Market & Accounting Research Database (CSMAR). CCER was co-created by the China Center for Economic Research at Peking University.

To address selection bias, omitted variable bias, and time effects, we adopted the PSM-DID method in our analysis. We took 965 firms from the same subindustries for control, which did not conduct any cross-border M&As during the research period. Finally, firm-year observations from 1,176 enterprises were obtained, encompassing both the treatment and control groups for the PSM-DID analysis.

3.2 Measurements

Dependent variable

Innovation Performance (InPf). *InPf* is measured by the number of invention patent applications by a firm in a given year. Though patents have weaknesses as the measurements of firm innovation performance, they also have significant strengths in indicating technological novelty and are highly correlated with other measures of innovation performance (e.g., new products and sales growth) (Ahuja & Katila, 2001). Therefore, patents have been widely used as the proxy of innovation performance in the acquisition literature (Makri et al., 2010; McCarthy & Aalbers, 2016). To mitigate the impact of patent bubbles, we only included the number of invention patents.

Independent variable

Dependence on the Government (Dgovn). *Dgovn* is measured on a dichotomous scale (high-low), coded as “1” to indicate high dependence on the government by a firm (and as zero otherwise). The variable is constructed based on one sub-index of the “marketization” index. The marketization index is issued yearly by the National Economic Research Institute (NERI) in China and is extensively employed to indicate China’s institutional development at the provincial level (Zhou et al., 2017). This index is comprised of five sub-indices, and the specific sub-index utilized in our study is the “relationship between the government and the market.” The sub-index indicates the degree to which economic resources are distributed through market mechanisms. The higher the ranking in a province, the more resources are allocated by the market, and vice versa, the more resources are allocated by the government. We first calculated the average of each province’s ranks during the research periods. In the case of the higher-ranked group, where resources are more allocated by the market, *Dgovn* is assigned the value of 0. Whereas, for the lower ranked group, *Dgovn* is assigned the value of 1.

Dependence on the Domestic Market (Ddmark). *Ddmark* is also measured by a binary variable. Initially, we computed the ratio of a firm’s domestic revenue to its total revenue. Subsequently, the mean value of the ratio for a firm ($Mark_f$) was calculated alongside the mean value for the industry, excluding the focal firm ($Mark_{ind}$). Finally, *Ddmark* takes the value of 1 when $Mark_f$ is

larger than $Markind$, and zero otherwise.

The independent variables are lagged by one year.

Moderators

Political connection (Pc). Consistent with previous research (Albino-Pimentel et al., 2018; Hillman, 2005), a count variable is employed to measure a firm's political connection. First, a top manager or a board director is defined as politically connected if they were a representative in the Chinese People's Congress (CPC), the Chinese People's Political Consultative Conference (CPPCC), or an officer in local or central government. These basic data were collected from the CSMAR database.

Then, the absolute number of politically connected members in a firm's TMT and board directors is computed as the proxy of a firm's political connection (**Pc**) in the benchmark regression. For the sake of robustness, a dummy variable (**Pcdum**) is also considered. The variable equals 1 when the CEO or chairman is politically connected, and 0 otherwise (Li et al., 2015; Schweizer et al., 2019).

Cost leadership advantage (Cla). Refer to the operationalization method of (Gao et al., 2010), the following formula is adopted to calculate a firm's cost leadership advantage:

$$Cla_{i,t} = \frac{(CL)_{i,j,t} - \text{median}_{-i,j,t}(CL)}{\text{range}\{(CL)_{i,j,t} - \text{median}_{-i,j,t}(CL)\} \forall i \in j, t} \in [-1, 1] \quad (3-1)$$

where $Cla_{i,t}$ is the cost leadership advantage of firm i in year t . $(CL)_{i,j,t}$ is the ratio of production cost to total operating income of firm i in industry j in year t . $\text{Median}_{-i,j,t}(CL)$ is the median of all listed firms in industry j excluding firm i in year t . The value range of $Cla_{i,t}$ is $[-1, 1]$. The smaller the value, the higher the firm's cost leadership advantage. However, this paper follows the adjustments of Duanmu et al. (2018) on the formula. The ratio of total operating revenue to production cost is used when calculating $(CL)_{i,j}$. Then, based on equation (3-1), the larger the value of $Cla_{i,t}$, the higher the firm's cost leadership advantage. It is then easier to understand the results.

Control Variables

We include an array of firm characteristics as control variables that have been proven by prior studies to exert significant influence on firms' innovation. These variables include firm age, size, ownership, R&D intensity, and slack resources. **Firm age** is calculated based on the date the firm is registered. **Firm Size** is measured by the natural logarithm of total employees in a given year. **Ownership** is measured by a categorical variable, and it equals 1 (zero otherwise) when the firm is state-owned. R&D intensity (**R&D**) equals the ratio of R&D expenses divided by the firm's main business income. Slack resources are measured by financial slack (**Slack**), which equals the ratio of cash available to the firm divided by total firm assets per year (Josephson et al., 2016). **Industry** dummies and **Year** dummies are also included in the model to control industry and year effects.

3.3 Analytical Strategy

The propensity score matching (PSM) and difference-in-difference (DID) methods are used for the estimations. Based on the panel data of the treatment and control group, the DID method is used to estimate the impact of CBMAs on firm innovation performance. The following model was adopted when conducting the DID analysis:

$$InPf_{it} = \beta_0 + \beta_1 Treat_{it} + \gamma X_{it} + \mu_i + t_t + \varepsilon_{it} \quad (3-2)$$

Where $InPf_{it}$ is the innovation performance of firm i in year t , μ_i , and t_t are vectors of firm and year dummies that account for firm and year fixed effects, X_{it} is a set of time-varying control variables, and ε_{it} is the error term. Specifically, the time-varying control variables include *Firm Size*, *Age*, *Ownership*, *R&D*, and *Slack*. $Treat_{it}$ is a dummy variable that equals one during the years following the completion of cross-border M&As, and zero otherwise. The coefficient, β_1 , indicates the impact of cross-border M&As on the acquirer firm's innovation performance.

4 RESULTS

4.1 Propensity score matching

To find a well-suited control group, propensity score matching is adopted. Following prior studies (Bertrand, 2009; Desyllas & Hughes, 2010; Szücs, 2014), the observable characteristics used in the matching process were *Firm Age*, *Ownership*, *Size*, *ROA* (return on assets), *Debt* (Asset-Liability Ratio), *Innovation capability*, *Year* and *Industry* dummies. We estimate the propensity score of cross-border M&As using a logit regression, and a common support (overlap condition) is imposed. All the variables were lagged by one year (Bertrand, 2009; Desyllas & Hughes, 2010). Five observations from the treatment group were dropped because their propensity scores were off common support. Subsequently, each acquiring firm is paired with the nearest non-acquiring firm from the same industry and year based on its propensity score.

We conducted a balancing test to evaluate whether a balanced sample was obtained. The results indicate a significant reduction in the standardized biases of the variables between the treatment and control groups. The maximum standardized bias is 7.5%, significantly below the commonly accepted threshold of 20% (Rosenbaum & Rubin, 1985). Furthermore, the p-values of the t-tests conducted to compare the means of all observable variables between the treatment and control group firms post-matching suggest that there is no statistically significant difference. A total of 210 treatment firms were retained, and they were matched with 225 control firms. The final panel sample is comprised 3,734 firm-year observations spanning from 2008 to 2017.

4.2 Descriptive statistics

Table 1 presents the descriptive statistics and correlations. The low value of the correlations suggests multicollinearity is not a major concern for our regression analysis. Besides, the variance inflation factors (VIFs) have also been examined, which are lower than the threshold value of 10.

Tab. 1 – Descriptive statistics and correlation matrix. Source: own research

Variables	Obs	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Firm Age	3734	15.273	5.457	1.000										
(2) Firm Size	3734	7.976	1.185	0.207*	1.000									
(3) Ownership	3734	0.222	0.416	0.116*	0.371*	1.000								
(4) R&D	3367	4.367	4.334	-0.039*	-0.239*	-0.123*	1.000							
(5) Slack	3734	0.178	0.125	-0.199*	-0.317*	-0.076*	0.183*	1.000						
(6) Treat	3734	0.273	0.446	0.131*	0.089*	-0.029	0.055*	-0.137*	1.000					
(7) Ddmark	3734	0.509	0.500	-0.004	-0.051*	0.057*	0.068*	0.034*	-0.189*	1.000				
(8) Dgovn	3734	0.476	0.500	-0.067*	0.090*	0.192*	0.005	-0.023	-0.047*	0.120*	1.000			
(9) Cla	3734	0.035	0.143	-0.097*	-0.204*	-0.123*	0.172*	0.245*	-0.033*	0.077*	0.025	1.000		
(10) Pc	3734	2.014	1.685	0.091*	0.201*	0.163*	-0.081*	-0.065*	-0.021	0.018	0.088*	-0.039*	1.000	
(11) Pcdum	3734	0.439	0.496	-0.008	0.064*	0.002	-0.027	0.003	-0.005	-0.008	-0.005	-0.008	0.349*	1.000
(12) InPf	3734	17.400	96.826	0.097*	0.226*	0.132*	0.017	0.025	0.020	-0.018	-0.005	-0.005	0.049*	0.049*

Note. * $p < 0.1$. Year dummies are included, but not shown.

4.3 Regression Results

In response to prior literature that sheds light on the association between cross-border M&As with firm innovation performance (Ornaghi, 2009; Thakur-Wernz et al., 2019), we started our regression analysis by examining whether cross-border M&As affect firm innovation performance (*InPf*). Model 1 in table 2 reports the results. All the control variables are included, but the coefficients of year dummies are suppressed. In model 1, the coefficient of *Treat* is 3.969 and statistically significant at the 5% level, which indicates that the innovation performance of acquiring firms markedly increased after cross-border M&As. It is consistent with previous research findings (e.g., Stiebale, 2016; Thakur-Wernz et al., 2019).

Tab. 2 - Regression results - Dependence on the government. Source: own research

Variables	(1) <i>InPf</i>	(2) <i>InPf</i> <i>Dgovn=0</i>	(3) <i>InPf</i> <i>Dgovn=1</i>	(4) <i>InPf</i> <i>Dgovn=0</i>	(5) <i>InPf</i> <i>Dgovn=1</i>	(6) <i>InPf</i> <i>Dgovn=0</i>	(7) <i>InPf</i> <i>Dgovn=1</i>
Firm Age	1.027** (0.437)	0.267 (0.326)	2.183** (0.902)	0.231 (0.326)	2.256** (0.900)	0.258 (0.325)	2.206** (0.900)
Firm Size	10.181*** (1.568)	8.227*** (1.182)	12.796*** (3.157)	8.369*** (1.181)	12.341*** (3.159)	8.205*** (1.181)	12.883*** (3.153)
Ownership	9.389* (5.545)	6.248 (6.036)	9.886 (8.655)	5.560 (6.038)	7.783 (8.695)	5.813 (6.039)	9.832 (8.666)
R&D	15.891** (7.019)	-4.899 (5.265)	41.480*** (14.322)	-5.321 (5.264)	41.643*** (14.321)	-5.028 (5.263)	43.702*** (14.327)
Fslack	0.032 (0.172)	0.265 (0.254)	-0.017 (0.248)	0.271 (0.254)	-0.020 (0.247)	0.257 (0.254)	-0.011 (0.247)
Treat	3.969** (1.946)	-1.643 (1.496)	10.688*** (3.833)	-2.852 (1.866)	18.462*** (5.122)	-1.969 (1.729)	15.201*** (4.559)
Pc				-0.952**	-0.191		

				(0.388)	(0.903)		
Treat * Pc				0.642	-3.633**		
				(0.643)	(1.550)		
PCdum						-2.455**	-2.643
						(1.230)	(2.865)
Treat * Pcdum						0.505	-9.039*
						(2.011)	(5.245)
_cons	-89.823***	-57.519***	-135.757***	-56.164***	-132.224***	-55.998***	-136.091***
	(13.465)	(9.915)	(27.944)	(9.919)	(27.917)	(9.930)	(27.902)
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3367	1796	1571	1796	1571	1796	1571
R ²	0.035	0.046	0.053	0.050	0.058	0.049	0.057

Note. Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Then, we separated the sample into two groups based on the value of the *Dgovn* variable to test hypothesis 1. Model 2 presents the regression results based on the data of the low dependence on the government group (i.e., *Dgovn* equals zero), and model 3 reports the regression results including only the sample with a value of 1 for the *Dgovn* variable. The coefficient of *Treat* is -1.643 and nonsignificant in model 2, however, the corresponding coefficient is 10.688 and significant in model 3. The remarkable differences between the coefficients of the two sample groups indicate firms' dependence on the government positively affects firm innovation performance after cross-border M&As, supporting our hypothesis 1.

Models 4 and 5 in table 2 report the regression results of the moderation effects of political connections (*Pc*). The results of models 4 and 5 are based on the sample firms with lower and higher dependence on the government, respectively. The coefficients of the interaction of *Treat* and *Pc* are significantly different in the two models. Similar results are found in models 6 and 7, where the measurement of political connection has changed to the binary variable (*Pcdum*) for robustness concerns. Thus, our hypothesis 2 is supported.

Our hypothesis 3 argues firms' dependence on the domestic market positively influences their innovation performance after cross-border M&As. In table 3, model 1 included firms that have lower dependence on the domestic market (i.e., *Ddmark* equals 0), whereas firms contained in model 2 have a higher dependence on the domestic market (i.e., *Ddmark* equals 1). The coefficient of *Treat* is 0.083 and non-significant in model 1, while that coefficient is 8.756 and significant at the 1% levels in model 2. Therefore, our hypothesis 3 is supported.

To examine the moderation effects of cost leadership advantage (*Cla*), we included the interaction terms between *Cla* and *Treat* in model 3 and model 4 in table 3. Model 3 shows that the coefficient of the interaction is -9.761 and non-significant, whereas the corresponding coefficient is -36.190 and significant at the 5% level in model 4. The results suggest firms' cost leadership advantage will negatively moderate the main relationship, which is consistent with our hypothesis 4.

Tab. 3 - Regression results - Dependence on the domestic market. Source: own research

Variables	(1)	(2)	(3)	(4)
	<i>InPf</i>	<i>InPf</i>	<i>InPf</i>	<i>InPf</i>

	Ddmark=0	Ddmark=1	Ddmark=0	Ddmark=1
Firm Age	0.492 (0.505)	1.731** (0.724)	0.497 (0.507)	1.751** (0.728)
Firm Size	17.238*** (1.916)	4.133* (2.476)	17.294*** (1.920)	4.186* (2.483)
Ownership	12.944 (12.088)	9.840 (6.801)	13.204 (12.099)	10.295 (6.798)
R&D	4.117 (8.149)	30.402*** (11.710)	3.983 (8.312)	30.267** (11.740)
Fslack	0.145 (0.227)	-0.040 (0.254)	0.144 (0.227)	-0.058 (0.255)
Treat	0.083 (2.250)	8.756*** (3.315)	0.389 (2.289)	10.247*** (3.387)
Cla			2.659 (8.924)	6.834 (9.701)
Treat * Cla			-9.761 (13.175)	-36.190** (17.181)
_cons	-137.019*** (16.607)	-55.356*** (21.302)	-137.690*** (16.680)	-56.673*** (21.528)
Year	Yes	Yes	Yes	Yes
N	1677	1690	1677	1690
R ²	0.070	0.033	0.070	0.036

Note. Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

4.4 Robustness tests

We take robustness tests by changing our sample sets. Each treated firm was paired with one control firm in the main analysis. We paired two and three control firms with one treated firm to run the robustness checks, respectively. Table 4 shows the results of fixed-effect linear regressions based on the new panel sample with two paired control firms. The results are consistent with previous findings, indicating that our results are robust.

Tab. 4 - Robustness test based on the sample with two paired control firms. Source: own research

Variables	(1) <i>InPf</i>	(2) <i>InPf</i> <i>Dgovn=0</i>	(3) <i>InPf</i> <i>Dgovn=1</i>	(4) <i>InPf</i> <i>Ddmark=0</i>	(5) <i>InPf</i> <i>Ddmark=1</i>
Firm Age	0.853** (2.27)	0.346 (0.93)	1.532** (2.21)	0.716 (1.61)	1.099* (1.79)
Firm Size	8.828*** (6.40)	7.229*** (5.31)	11.236*** (4.42)	15.384*** (8.78)	3.485* (1.65)
Ownership	8.115 (1.62)	4.861 (0.70)	9.609 (1.33)	9.397 (0.92)	8.523 (1.39)
R&D	13.933** (2.41)	-1.190 (-0.21)	32.956*** (3.02)	1.995 (0.29)	26.535*** (2.84)
Fslack	-0.000 (-0.00)	0.080 (0.27)	-0.020 (-0.09)	0.149 (0.67)	-0.094 (-0.41)
Treat	3.496* (1.94)	-2.045 (-1.14)	10.414*** (3.19)	-1.731 (-0.83)	9.911*** (3.17)
_cons	-75.384***	-50.313***	-111.121***	-123.226***	-40.000**

	(-6.39)	(-4.44)	(-4.97)	(-8.17)	(-2.21)
Year	Yes	Yes	Yes	Yes	Yes
<i>N</i>	4490	2327	2163	2245	2245
<i>R</i> ²	0.030	0.027	0.046	0.057	0.030

Note. Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

5 DISCUSSION AND CONCLUSION

Despite extensive research on cross-border M&As and innovation, there remains limited understanding of how firms from emerging economies strategically navigate external dependencies in post-M&A innovation decisions. Existing studies primarily focus on M&As as a means to acquire strategic assets, yet little attention has been given to the conditions under which EMNEs leverage M&As as either complements or substitutes for innovation (Degbey et al., 2021; Deng & Yang, 2015; Yang et al., 2024).

This study examines how EMNEs leverage cross-border M&As as either complements or substitutes for innovation, shaped by their external dependencies on government resources and the domestic market. Drawing on RDT, our findings indicate that firms with higher dependence on the government are more likely to use M&As to enhance innovation performance, though this effect diminishes when political connections exist. Similarly, reliance on the domestic market encourages firms to innovate post-M&As, but a strong cost leadership strategy weakens this effect. Additionally, our study highlights the role of M&As in strengthening firms' competitive positioning by enhancing innovative capabilities and reducing external vulnerabilities, offering new insights into how EMNEs navigate constraints to sustain long-term competitiveness.

Moreover, our conclusions can be further expanded by drawing on international evidence. Comparative case studies by Awate et al. (2012) and Awate et al. (2015) on the wind turbine sector illustrate how Suzlon, a leading Indian wind turbine manufacturer, did not apply for a single patent at its headquarters in India after acquiring multiple foreign firms with cutting-edge technology. This case exemplifies how cross-border M&As can serve as a substitute for innovation, particularly when firms have low dependence on their domestic market. Before its international expansion in 1999, Suzlon had already established itself as the market leader in India. As its primary clientele shifted beyond India, its reliance on the domestic market decreased, reducing the incentive to enhance innovation performance at its headquarters. Instead, the company leveraged its acquired subsidiaries to obtain advanced technology and serve foreign markets. This example underscores the broader applicability of our findings, reinforcing the idea that external dependencies shape firms' post-M&A innovation trajectories in distinct ways.

5.1 Theoretical contributions

Our study makes theoretical contributions to the IB and RDT literature. First, this paper sheds light on the overlooked factors that determine the acquiring firms' choice between using cross-border M&As as complements and substitutes for their innovation, which also provides a potential

approach to reconcile the inconsistent conclusions between cross-border M&As and multinationals' innovation performance and competitiveness (Awate et al., 2012, 2015; Elia et al., 2020; Luo & Tung, 2007, 2018). Both of the two choices are capable of addressing the technological gap faced by EMNEs. However, they release significantly different impacts on acquiring firms' innovation performance and few studies have focused on the factors that determine the acquiring firms' choices. Our study thus provides more insights into this field.

Second, we extend RDT to explain EMNEs' innovation performance after M&As rather than limit it to predict the occurrence of M&As before M&As. Based on the RDT logic, this study aims to not only identify the factors that directly affect Chinese multinationals' innovation performance but also clarify the boundary conditions of the relationship. The aforementioned findings contribute to enhancing our understanding of the mechanism of cross-border M&As on EMNEs' innovation performance (Cheng & Yang, 2017; Hsu et al., 2021; Xiao et al., 2022).

5.2 Practical implications

This study also has implications for managers and policymakers. EMNEs should actively use cross-border M&As as complements for their innovation performance to cope with the constraints of the government and the domestic market, rather than using cross-border M&As to substitute their innovation. With the sustained economic development of emerging economies, the needs of domestic consumers are changing and upgrading. If EMNEs are highly dependent on the domestic market, it is necessary to improve innovation performance to meet the needs and changes of consumers to enhance their competitiveness in the market.

For policymakers, it is essential to ensure that government-controlled resources serve as enablers rather than substitutes for firms' innovation efforts. Instead of merely providing financial support, policymakers should focus on creating a regulatory environment that encourages firms to leverage M&As for technological upgrading and long-term innovation. Additionally, policies should promote competitive market conditions where firms are driven by technological advancement rather than cost efficiency alone. By fostering an ecosystem that balances resource provision with market-driven incentives, governments can help EMNEs strengthen their innovation capabilities and global competitiveness.

5.3 Limitations and future directions

Our research also has limitations, which provide avenues for future research. First, the external environment influencing firms' post-M&As choices is not limited to resources; factors such as cultural differences between acquiring and target firms, post-acquisition integration processes, as well as competitors, universities, and industry associations may also play a crucial role in shaping firms' innovation trajectories. Future research could further explore how these additional factors impact EMNEs' post-M&A innovation performance. Second, another key limitation is that the dataset covers the period from 2008 to 2017 to avoid the influence of the U.S.-China trade war. However, this may not fully capture recent trends in firms' post-M&A innovation. Future research

could extend the study to other emerging economies and incorporate more recent data to provide a better understanding of evolving market dynamics and innovation strategies.

References

- Adomako, S., et al. (2021). Institutional voids, economic adversity and inter-firm cooperation in an emerging market: The mediating role of government R&D support. *British Journal of Management*, 32(1), 40-58.
- Ahuja, G., & Katila, R. (2001). Technological acquisitions and the innovation performance of acquiring firms: A longitudinal study. *Strategic Management Journal*, 22(3), 197-220.
- Albino-Pimentel, J., Anand, R., & Dussauge, P. (2018). How do firm political connections impact foreign acquisitions? The effects of decision makers' political and firm embeddedness. *Global Strategy Journal*, 8(3), 421-446.
- Anderson, J., Sutherland, D., & Severe, S. (2015). An event study of home and host country patent generation in Chinese MNEs undertaking strategic asset acquisitions in developed markets. *International Business Review*, 24(5), 758-771.
- Awate, S., Larsen, M. M., & Mudambi, R. (2012). EMNE catch-up strategies in the wind turbine industry: Is there a trade-off between output and innovation capabilities? *Global Strategy Journal*, 2(3), 205-223.
- Awate, S., Larsen, M. M., & Mudambi, R. (2015). Accessing vs. sourcing knowledge: A comparative study of R&D internationalization between emerging and advanced economy firms. *Journal of International Business Studies*, 46(1), 63-86.
- Banker, R., Mashruwala, R., & Tripathy, A. (2014). Does a differentiation strategy lead to more sustainable financial performance than a cost leadership strategy? *Management Decision*, 52(5), 872-896.
- Barkema, H. G., Bell, J. H., & Pennings, J. M. (1996). Foreign entry, cultural barriers, and learning. *Strategic Management Journal*, 17(2), 151-166.
- Bertrand, O. (2009). Effects of foreign acquisitions on R&D activity: Evidence from firm-level data for France. *Research Policy*, 38(6), 1021-1031.
- Buckley, P. J., et al. (2018). A retrospective and agenda for future research on Chinese outward foreign direct investment. *Journal of International Business Studies*, 49, 4-23.
- Buckley, P. J., Elia, S., & Kafouros, M. (2014). Acquisitions by emerging market multinationals: Implications for firm performance. *Journal of World Business*, 49(4), 611-632.
- Capron, L., & Mitchell, W. (1998). Bilateral resource redeployment and capabilities improvement following horizontal acquisitions. *Industrial and Corporate Change*, 7(3), 453-484.
- Casciaro, T., & Piskorski, M. J. (2005). Power imbalance, mutual dependence, and constraint absorption: A closer look at resource dependence theory. *Administrative Science Quarterly*, 50(2), 167-199.
- Cassiman, B., Colombo, M. G., Garrone, P., & Veugelers, R. (2005). The impact of M&A on the R&D process: An empirical analysis of the role of technological-and market-relatedness.

- Research Policy*, 34(2), 195-220.
- Chae, S., Son, B.-G., Yan, T., & Yang, Y. S. (2022). Supply chains and the success of M&As: Investigating the effect of structural equivalence of merging firms' supplier and customer bases. *International Journal of Operations & Production Management*, 42(8), 1272-1293.
- Chaithanapat, P., Punnakitikashem, P., Oo, N. C. K. K., & Rakthin, S. (2022). Relationships among knowledge-oriented leadership, customer knowledge management, innovation quality and firm performance in SMEs. *Journal of Innovation & Knowledge*, 7(1), 100162.
- Cheng, C., & Yang, M. (2017). Enhancing performance of cross-border mergers and acquisitions in developed markets: The role of business ties and technological innovation capability. *Journal of Business Research*, 81, 107-117.
- Colombo, M. G., & Rabbiosi, L. (2014). Technological similarity, post-acquisition R&D reorganization, and innovation performance in horizontal acquisitions. *Research Policy*, 43(6), 1039-1054.
- Cuervo-Cazurra, A., Gaur, A., & Singh, D. (2019). Pro-market institutions and global strategy: The pendulum of pro-market reforms and reversals. *Journal of International Business Studies*, 50, 598-632.
- Degbey, W. Y., Eriksson, T., Rodgers, P., & Oguji, N. (2021). Understanding cross-border mergers and acquisitions of African firms: The role of dynamic capabilities in enabling competitiveness amidst contextual constraints. *Thunderbird International Business Review*, 63(1), 77-93.
- Deng, P., & Yang, M. (2015). Cross-border mergers and acquisitions by emerging market firms: A comparative investigation. *International Business Review*, 24(1), 157-172.
- Desyllas, P., & Hughes, A. (2010). Do high technology acquirers become more innovative? *Research Policy*, 39(8), 1105-1121.
- Dong, M., Ma, P., & Cui, L. (2024). Inward FDI and local firms' political connections in emerging markets: Evidence from China. *Global Strategy Journal*, 14(2), 312-349.
- Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy*. Edward Elgar Publishing.
- Elia, S., Kafouros, M., & Buckley, P. J. (2020). The role of internationalization in enhancing the innovation performance of Chinese EMNEs: A geographic relational approach. *Journal of International Management*, 26(4), 100801.
- Gao, G. Y., Murray, J. Y., Kotabe, M., & Lu, J. (2010). A "strategy tripod" perspective on export behaviors: Evidence from domestic and foreign firms based in an emerging economy. *Journal of International Business Studies*, 41(3), 377-396.
- Gao, K., & Yuan, Y. (2022). Government intervention, spillover effect and urban innovation performance: Empirical evidence from national innovative city pilot policy in China. *Technology in Society*, 70, 102035.
- Guo, Y., Huy, Q. N., & Xiao, Z. (2017). How middle managers manage the political environment to achieve market goals: Insights from China's state-owned enterprises. *Strategic Management Journal*, 38(3), 676-696.

- He, F., Miao, X., & Wong, C. W. (2025). Unpacking firm political dependence: how administrative hierarchical distance affects corporate environmental information disclosure. *Journal of Environmental Planning and Management*, 68(12), 2815-2837.
- Hillman, A. J. (2005). Politicians on the board of directors: Do connections affect the bottom line? *Journal of Management*, 31(3), 464-481.
- Hsu, P.-H., Huang, P., Humphery-Jenner, M., & Powell, R. (2021). Cross-border mergers and acquisitions for innovation. *Journal of International Money and Finance*, 112, 102320.
- Huang, C., Chang, X., Wang, Y., & Li, N. (2023). Do major customers encourage innovative sustainable development? Empirical evidence from corporate green innovation in China. *Business Strategy and the Environment*, 32(1), 163-184.
- Josephson, B. W., Johnson, J. L., & Mariadoss, B. J. (2016). Strategic marketing ambidexterity: Antecedents and financial consequences. *Journal of the Academy of Marketing Science*, 44, 539-554.
- Kotabe, M., Jiang, C. X., & Murray, J. Y. (2011). Managerial ties, knowledge acquisition, realized absorptive capacity and new product market performance of emerging multinational companies: A case of China. *Journal of World Business*, 46(2), 166-176.
- Krammer, S. M., & Jimenez, A. (2020). Do political connections matter for firm innovation? Evidence from emerging markets in Central Asia and Eastern Europe. *Technological Forecasting and Social Change*, 151, 119669.
- Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13(S1), 111-125.
- Lester, R. H., Hillman, A., Zardkoohi, A., & Cannella Jr., A. A. (2008). Former government officials as outside directors: The role of human and social capital. *Academy of Management Journal*, 51(5), 999-1013.
- Li, S., Song, X., & Wu, H. (2015). Political connection, ownership structure, and corporate philanthropy in China: A strategic-political perspective. *Journal of Business Ethics*, 129, 399-411.
- Li, X., Quan, R., Stoian, M.-C., & Azar, G. (2018). Do MNEs from developed and emerging economies differ in their location choice of FDI? A 36-year review. *International Business Review*, 27(5), 1089-1103.
- Liang, L., & Li, Y. (2023). How does government support promote digital economy development in China? The mediating role of regional innovation ecosystem resilience. *Technological Forecasting and Social Change*, 188, 122328.
- Liang, Y., Giroud, A., & Rygh, A. (2022). Strategic asset-seeking acquisitions, technological gaps, and innovation performance of Chinese multinationals. *Journal of World Business*, 57(4), 101325.
- Lin, L. H. (2018). Vertical ally-or-acquire choice and technological performance: A resource dependence perspective. *R&D Management*, 48(5), 552-565.
- Lin, Y., Fu, X., & Fu, X. (2021). Varieties in state capitalism and corporate innovation: Evidence from an emerging economy. *Journal of Corporate Finance*, 67, 101919.

- Liu, Y., & Woywode, M. (2013). Light-touch integration of Chinese cross-border M&A: The influences of culture and absorptive capacity. *Thunderbird International Business Review*, 55(4), 469-483.
- Luo, Y., & Tung, R. L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4), 481-498.
- Luo, Y., & Tung, R. L. (2018). A general theory of springboard MNEs. *Journal of International Business Studies*, 49, 129-152.
- Ma, Y., & Hu, Y. (2021). Business model innovation and experimentation in transforming economies: ByteDance and TikTok. *Management and Organization Review*, 17(2), 382-388.
- Makri, M., Hitt, M. A., & Lane, P. J. (2010). Complementary technologies, knowledge relatedness, and invention outcomes in high technology mergers and acquisitions. *Strategic Management Journal*, 31(6), 602-628.
- McCarthy, K. J., & Aalbers, H. L. (2016). Technological acquisitions: The impact of geography on post-acquisition innovative performance. *Research Policy*, 45(9), 1818-1832.
- Meyer, K. E., & Peng, M. W. (2016). Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, 47, 3-22.
- Ornaghi, C. (2009). Mergers and innovation in big pharma. *International Journal of Industrial Organization*, 27(1), 70-79.
- Pfeffer, J. (1972). Merger as a response to organizational interdependence. *Administrative Science Quarterly*, 17, 382-394.
- Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. Harper & Row.
- Rosenbaum, P. R., & Rubin, D. B. (1985). Constructing a control group using multivariate matched sampling methods that incorporate the propensity score. *American Statistician*, 39(1), 33-38.
- Rugman, A. M., & Li, J. (2007). Will China's multinationals succeed globally or regionally? *European Management Journal*, 25(5), 333-343.
- Rui, H., & Yip, G. S. (2008). Foreign acquisitions by Chinese firms: A strategic intent perspective. *Journal of World Business*, 43(2), 213-226.
- Schweizer, D., Walker, T., & Zhang, A. (2019). Cross-border acquisitions by Chinese enterprises: The benefits and disadvantages of political connections. *Journal of corporate finance*, 57, 63-85.
- Sears, J. B. (2018). Post-acquisition integrative versus independent innovation: A story of dueling success factors. *Research Policy*, 47(9), 1688-1699.
- Shao, Y., & Chen, Z. (2022). Can government subsidies promote the green technology innovation transformation? Evidence from Chinese listed companies. *Economic Analysis and Policy*, 74, 716-727.
- Sitanggang, C. H., & Absah, Y. (2019). The influence of innovation, cost leadership strategy and customer orientation on competitive advantage and its impact on customer satisfaction at

- container depot of Pt Masaji Tatanan Container Branch of Belawan. *International Journal of Research and Review*, 6(1), 34-46.
- Stiebale, J. (2016). Cross-border M&As and innovative activity of acquiring and target firms. *Journal of International Economics*, 99, 1-15.
- Sun, P., Mellahi, K., & Thun, E. (2010). The dynamic value of MNE political embeddedness: The case of the Chinese automobile industry. *Journal of International Business Studies*, 41, 1161-1182.
- Szücs, F. (2014). M&A and R&D: Asymmetric effects on acquirers and targets? *Research Policy*, 43(7), 1264-1273.
- Thakur-Wernz, P., Cantwell, J., & Samant, S. (2019). Impact of international entry choices on the nature and type of innovation: Evidence from emerging economy firms from the Indian bio-pharmaceutical industry. *International Business Review*, 28(6), 101601.
- Ulziisukh, S., & Wei, Z. (2022). Behind the political connections under emerging democracies. *Management and Organization Review*, 18(4), 686-716.
- Wang, C., Hong, J., Kafourous, M., & Wright, M. (2018). Exploring the role of government involvement in outward FDI from emerging economies. In A. Cuervo-Cazurra (Ed.), *State-owned multinationals: Governments in global business* (pp. 75-109). Springer.
- Wang, X., Li, Y., Tian, L., & Hou, Y. (2023). Government digital initiatives and firm digital innovation: Evidence from China. *Technovation*, 119, 102545.
- Wu, G., Xu, Q., Niu, X., & Tao, L. (2022). How does government policy improve green technology innovation: An empirical study in China. *Frontiers in Environmental Science*, 9, 799794.
- Wu, J., Yu, L., & Khan, Z. (2023). How do mutual dependence and power imbalance condition the effects of technological similarity on post-acquisition innovation performance over time? *British Journal of Management*, 34(1), 195-219.
- Xiao, H., Shi, Y., & Yang, T. (2022). The impacts of board faultlines on innovation performance in cross-border mergers and acquisitions. *International Journal of Innovation Management*, 26(10), 2250073.
- Xie, X., Wang, H., & García, J. S. (2021). How does customer involvement in service innovation motivate service innovation performance? The roles of relationship learning and knowledge absorptive capacity. *Journal of Business Research*, 136, 630-643.
- Yang, Y., Rhee, M., & Pak, Y. S. (2024). With or without metamorphosis of learning orientation: Post-cross-border mergers and acquisitions performance of emerging multinational enterprises. *Journal of Business Research*, 182, 114768.
- Zhao, X. (2009). Technological innovation and acquisitions. *Management Science*, 55(7), 1170-1183.
- Zhou, K. Z., Gao, G. Y., & Zhao, H. (2017). State ownership and firm innovation in China: An integrated view of institutional and efficiency logics. *Administrative Science Quarterly*, 62(2), 375-404.
- Zhu, H., & Zhu, Q. (2016). Mergers and acquisitions by Chinese firms: A review and comparison with other mergers and acquisitions research in the leading journals. *Asia Pacific Journal*

of Management, 33, 1107-1149.

Zulu-Chisanga, S., Chabala, M., & Mandawa-Bray, B. (2021). The differential effects of government support, inter-firm collaboration and firm resources on SME performance in a developing economy. *Journal of Entrepreneurship in Emerging Economies*, 13(2), 175-195.

Contact information

Asst. Prof. Xiaoting Hu, Ph.D.

Beijing Information Science and Technology University
Faculty of School of Economics and Management
China
E-mail: huxtconcentrating@163.com
ORCID: 0000-0002-9955-7452

Asst. Prof. Yuchen Gao, Ph.D.

Tsinghua University
Faculty of School of Public Policy and Management
China
E-mail: gaoych@tsinghua.edu.cn
ORCID: 0000-0002-1409-2976

Dr. Peipei Yang, Ph.D.

Fraunhofer Institute for Systems and Innovation Research ISI
Department of Innovation and Knowledge Economics
Germany
E-mail: peipei.yang@isi.fraunhofer.de
ORCID: 0000-0001-8786-3914

Dr. Wenjing Lyu, Ph.D.

Massachusetts Institute of Technology
Research Associate of Initiative on the Digital Economy
USA
E-mail: wjlyu@mit.edu
ORCID: 0000-0002-2260-9349