

The dark side of foreign firm presence: How does the knowledge spillover from foreign direct investment influence the new venture performance



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ARTICLE INFO

Article History:

Received 14 August 2022

Accepted 28 April 2023

Available online 8 June 2023

Keywords:

Foreign direct investment

New venture

Knowledge spillover

Cultural distance

Institutional distance

ABSTRACT

This study presented a comprehensive framework to explain how the knowledge spillover from foreign direct investment (FDI) influences domestic new venture performance. Referring to external (formal and informal institutional distances) and internal (foreign experience and learning orientation) factors, this study examined the external and internal factors as moderators in this relationship. Data were collected from 103 Chinese new ventures and China's inward FDI for 2017. The findings revealed that the negative competitive effect caused by foreign firms outweighs the FDI knowledge spillover effect. The results also indicated that external factors significantly influence the impact of foreign firms' presence on the new venture performance, whereas the influence of internal factors was limited. The study highlighted the importance of incorporating the heterogeneity of domestic firms into FDI knowledge spillover research.

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Introduction

Over the previous decades, the dramatic increase in inward foreign direct investment (FDI) has fundamentally affected the survival and operation of domestic firms in host countries (i.e., the recipient of FDI), especially in emerging economies such as China (Xiao & Park, 2018). As the largest recipient of FDI in emerging countries, the actual use of foreign capital in China's market reached 180.96 billion US dollars in 2021, with 48,000 new foreign firms entering and playing a vital role in this world's largest emerging market (Ministry of Commerce of China, 2023). The questions of if and how domestic firms in the local market are affected by inward FDI are pondered by scholars as the swift growth in FDI inflows into emerging markets (Xiao & Park, 2018; Slesman et al., 2021). Most of the existing studies are based on implicit assumptions. That is, the robust management

capabilities, practices, and technological superiority of foreign multinational firms from developed countries can be imitated by or transferred to domestic firms in emerging markets (Hansen & Hansen, 2020). This phenomenon is 'spillover,' defined as domestic firms benefit from positive externalities such as foreign multinational firms' management expertise, knowledge, and technology (Jin et al., 2019; Spencer, 2008; Zhang, 2020). However, this assumption is not necessarily correct. On the one hand, foreign firms rarely share technology and competitive advantages with domestic firms in a friendly manner (Feinberg & Majumdar, 2001; Wu et al., 2023), while on the other hand, whether domestic firms can benefit from inward FDI also depends on their capability to identify and internalize knowledge spillovers (Saranga et al., 2019; Zhang et al., 2010).

Existing research investigating the influence of FDI knowledge spillovers on domestic firms produced mixed findings. Some research proposed positive spillovers of FDI (Kim & Park, 2017), primarily because foreign entrants' knowledge spillovers can benefit domestic firms by improving the efficiency of their own technology (Sinai & Meyer, 2004). Others found that FDI has no or even negative spillovers on domestic firms (Aitken & Harrison, 1999; Feinberg &

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Majumdar, 2001), which is mainly due to foreign firms facing foreign liabilities (Khanna et al., 2005) and competition in the host market with domestic firms (Chang & Xu, 2008). Previous research is limited because it has assumed domestic firms in the host market as indiscriminate recipients of FDI knowledge spillovers and did not distinguish FDI knowledge spillovers' impact on the different types of domestic firms (Xiao & Park, 2018). Scholars only concentrated on the effects of different ownership structures (Chang & Xu, 2008) and heterogeneous institution environments (Xiao & Park, 2018) in host markets on FDI knowledge spillovers from established firms' investigations (Jin et al., 2019), whereas with insignificant attention to domestic new ventures. New ventures are considered to be the essential impetus to the domestic economy (Knight & Cavusgil, 1996). Previous studies indicated that because of the liability of newness, the new venture has significant differences with established firms mainly in three aspects, including lack of social ties, legitimacy ties, and strategic resources (Li & Zhang, 2007; Shepherd & Zacharakis, 2003). Therefore, the presence of foreign firms in the local market potentially threatens new ventures, compared with the established firms' solid absorptive capacity to get the benefits of FDI and the extensive social and commercial ties to establish connections with foreign firms to obtain benefits (Chaklader, 2023; Geng, Li, 2022; Gupta, 2023).

Consider, for example, the crowding out of domestic new ventures by foreign firms entering China's semiconductor industry, which benefited from technological breakthroughs by state-led research institutes in the 1960s, leading to new ventures' emergence. However, as regulators opened up the market in the 1980s, a group of sophisticated foreign semiconductor firms (including Toshiba, Electric Corporation, and Philips) began to enter the Chinese market (Grimes & Du, 2020). Due to the lack of funds, domestic new ventures introduced much obsolete equipment and lacked supporting technology and management, resulting in only a few being put into production. Since then, Intel and Samsung's technological breakthroughs in microprocessors have established their dominance in integrated device manufacturers (IDMs). Domestic new ventures are threatened by the technological bottleneck and economies of scale of foreign companies, and their market share in IDM is further squeezed (Bown, 2020). Thus, new ventures in the domestic semiconductor industry did not experience positive knowledge and technology spillovers from the presence of foreign firms. The key is that the presence of foreign firms in the local market is a double-edged sword. On the one hand, they can meet the local market's needs and transfer a certain degree of knowledge spillover. On the other hand, they master core technologies by building fundamental barriers and low prices in the large-scale economy, which may threaten the survival of domestic new ventures (Xiao & Park, 2018).

This study investigated the impact of inward FDI on domestic new ventures. We argued that the presence of foreign firms in local markets threatens the performance of new ventures with insufficient strategic resources and few business ties. Nevertheless, institution, as an essential external environmental factor, affects the relationship between inward FDI and domestic new ventures. Research on international business (IB) in emerging economies has increasingly focused on the institution-based perspective as a fundamental paradigm of organizational phenomena in IB strategy (Slesman et al., 2021; Uddin et al., 2019; Xiao & Park, 2018). Institutional theorists proposed that institutions can shape business economic activities through formal and informal rules (North, 1990). Formal institutions refer to regularity binding, formal rules of the game, and informal institutions mainly regard cultural values' socially acceptable norms of conduct (Zhang, 2020). Formal and informal institutions are the institutional-based view's central principles, and their changes shape firms' performance and strategic choices (Dong et al., 2022). We further inferred that factors from external and internal to the new venture could affect the relationship between foreign firms' presence

and the performance of domestic new ventures. Specifically, for identifying external variables, we referred to the differences between national systems involved in IB research and discuss such differences with the concept of distance (Ambos & Hakanson, 2014; Choi et al., 2016; Wu et al., 2022). We argued that larger formal and informal institutional differences between the national origin of foreign firms and China can mitigate the threat of foreign firms' presence to domestic new ventures. For internal factors, we used learning orientation and foreign experience of the executive to measure the impact of foreign firm presence on new venture performance (Rasmusen et al., 2022; Touma & Zein, 2021; Usman et al., 2022). We argued that learning orientation and the executive's foreign knowledge and networks brought by foreign experience could mitigate the threat of foreign firms' presence to domestic new ventures. Fig. 1 presents the conceptual framework of this study. Therefore, we focused on the following research question: How does the foreign firm presence affect domestic new venture performance? How is this effect shaped by external and internal factors?

This study focuses on the Chinese context to answer these two research questions for three reasons. First, China is the emerging economy that receives the most FDI in the world, and foreign firms play a crucial role in the Chinese market by virtue of their vast market share and leading technological advantages (Wu et al., 2023). Therefore, the presence of foreign firms can substantially impact domestic firms' performance and strategy (Xiao & Park, 2018). Second, China efforted to foster new ventures by establishing entrepreneurship parks nationwide, making China one of the most active markets for new ventures (Yu & Wang, 2021). Third, as an emerging economy, the accumulation of technological knowledge of domestic new ventures in China is lower than that of foreign firms from developed markets (Li et al., 2018). Therefore, the presence of foreign firms provides domestic new ventures with opportunities to acquire knowledge and pressure to intensify competition (Liu et al., 2016). In general, China provides a rich context for this study to investigate the impact of foreign firms on domestic new ventures. This study constructed a unique database by collecting data from multiple sources. Data on firm characteristics were obtained through a survey of 103 new ventures in China. FDI and institutional distance data were collected and calculated from the National Bureau of Statistics of China and the Global Competitiveness Report. The empirical results indicated that foreign firm presence significantly negatively impacts domestic new venture performance. *Meanwhile, we found that the national origin of foreign firms with higher formal and informal institutional distances compared with China and domestic new ventures with higher learning orientation could weaken the negative influence of these foreign firms' presence on domestic new venture performance.* However, the impact of foreign experience was not significant.

This study built on previous research and makes several theoretical contributions to the related literature. First, we contributed to existing IB literature on the impact of FDI on domestic new venture performance. Previous studies mainly concentrated on domestic established firms (Jin et al., 2019) or treat local companies as homogeneous recipients (Xiao & Park, 2018) and documented mixed results. In this study, we provided evidence that the negative competitive effect caused by foreign firms outweighs the positive spillover effect on domestic new ventures. Second, this study contributed to research on IB in emerging economies that increasingly focused on the institution-based perspective as an essential paradigm of organizational phenomena in IB strategy (Slesman et al., 2021; Uddin et al., 2019; Xiao & Park, 2018). Third, we proposed formal and informal institutional distance as external factors and learning orientation and executives' foreign experience as internal factors and investigate their impact on the influence of foreign firms' presence on domestic new ventures' performance, which enriches the existing research on the understanding of FDI affecting the performance of domestic firms.

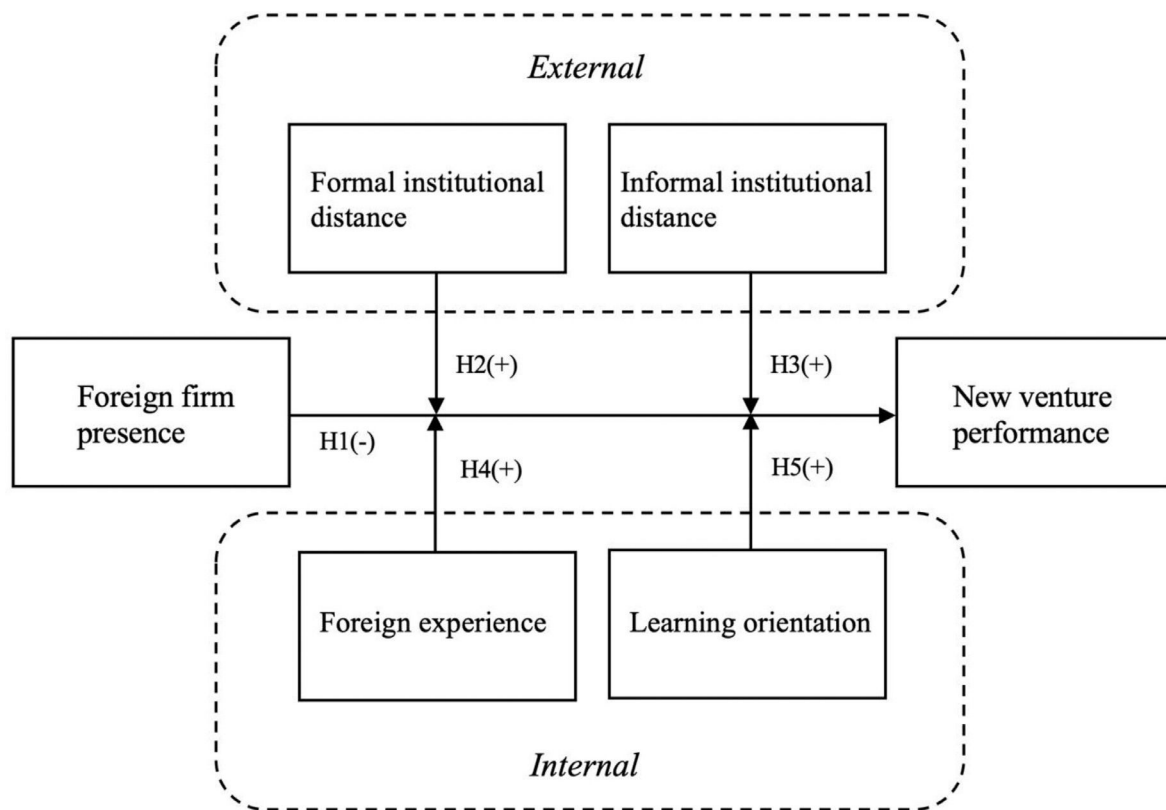


Fig. 1. Conceptual framework.

Theoretical background and hypotheses

Foreign direct investment and new venture performance

Whether the presence of foreign entrants has a benefit for domestic firms in the host market is an essential topic for scholars in international business strategy management (Eden, 2009; Hansen & Hansen, 2020; Wu et al., 2023). Previous research focused on the influence of FDI knowledge spillover on domestic firms' productivity (Buckley et al., 2007; Zhang et al., 2014) by analyzing the detected improvement in the domestic firms that were in contact with FDI (Meyer, 2004). For instance, scholars have conducted foreign firms' positive FDI spillovers effect on domestic firms' productivity (e.g. Cave, 1974; Hansen & Hansen, 2020; Lee & Gereff, 2021; Piperopoulos et al., 2018; Richart et al., 2021). First, the demonstration effect, which means domestic firms can understand the technical and management practices of foreign firms and then imitate their operational strategies by engaging with the activities of foreign companies (Blomström & Kokko, 1998; Hansen & Hansen, 2020). Second, to establish domestic contacts, which contain knowledge of foreign firms, can be passed to domestic suppliers and distributors through the establishment of links with them (Goerzen et al., 2021; Lee & Gereff, 2021; Spencer, 2008).

Despite studies that have investigated inward FDI has a positive effect on domestic firms' productivity, inconsistent or even conflicting results been proposed by the research in the context of emerging economies (Liu et al., 2016; Wu & Pangarkar, 2006; Sindhwani et al., 2022; Wu et al., 2023). In emerging economies, where the size of their markets is constrained and the rate of growth is quite consistent (Li et al., 2018), any foreign firms' sales increase could diminish the performance of domestic firms. Thus, the presence of foreign firms in emerging economies could amplify the competition between foreign and domestic firms to maximize their respective market shares (Wu et al., 2023). In particular, foreign firms have an upper hand as they possess advanced resources

such as new management systems and technology (Deng et al., 2022). Through restraining their domestic rivals' expansion, the foreign firms could advance their own market dominance (Nuruzzaman et al., 2019). For instance, Liu et al. (2016) and Feinberg and Majumdar (2001) shown that FDI spillovers have no or even negative impact on the productivity of domestic firms, especially competitive effects (Chang & Xu, 2008), which affect the productivity of domestic firms. Thus, the competitive effect may dominate the negative knowledge spillover effect. When the competition is fierce, the negative FDI knowledge spillover effect is more likely to dominate (Chang & Xu, 2008). Labor/skill- and market-stealing effects are the two main channels through which foreign firms may compete to reduce the productivity of domestic firms (Xiao & Park, 2018). The crowding-out or market-stealing effect refers to the loss of domestic firms' share in the local market which has the existence of foreign firms (Zhang et al., 2014).

Existing literature is limited since the effects of FDI knowledge spillover have mainly been viewed for domestic established firms (Jin et al., 2019) or treat local companies as homogeneous recipients (Xiao & Park, 2018). The new ventures have distinctive features compared with established firms. First, new ventures are usually short of resources, which is also the key reason for their failure; second, new ventures generally lack social ties and legality (Shepherd & Zacharakis, 2003), availability of external resources is the main problem it faces (Li & Zhang, 2007). Based on these characteristics, we propose that the presence of foreign firms threatens the performance of domestic new ventures and entrepreneurial activity. First, Kang et al. (2021) demonstrated that the competitive effect of FDI has two major negative impacts on domestic new ventures. The presence of foreign firms exacerbates market share competition, which reduces the profitability of new ventures' entrepreneurial activities relative to established firms in the industry. Existing new ventures may be forced to enter lower innovation and less profitable areas that are ignored by foreign firms to avoid competition from foreign entrants (Kang et al., 2021; Sampaio et al., 2021; Y. Sun et al., 2021). Second, foreign firms

can pay higher wages to attract the most capable workers because they have higher productivity and more advanced technology than domestic new ventures (Zapkau et al., 2014). Therefore, this will result in a reduction in domestic entrepreneurial activity and a decline in the profitability of the new venture as the most capable employees are employed by foreign firms (De Backer & Sleuwaegen, 2003). We argue that foreign firm presence has a negative competitive effect on domestic new ventures by increasing competition and appealing to most domestic skilled laborers (Gu & Lu, 2011).

Therefore, we hypothesize the following:

Hypothesis 1. There is a negative relationship between the strength of foreign firm presence and new venture performance.

Institutional distance and foreign direct investment spillover

Research on IB in emerging economies has increasingly focused on the institution-based perspective as a fundamental paradigm of organizational phenomena in IB strategy (Slesman et al., 2021; Uddin et al., 2019; Xiao & Park, 2018). Formal and informal institutions are the institutional-based view's central principles, and their changes shape firms' performance and strategic choices (Dong et al., 2022). Based on the metaphor of 'rules of the game,' North (1990) defined institutions as 'artificial design constraints to construct human interaction.' Kostova (1997) proposed an alternative comprehensive structure to describe the external organizational environment at the national level: the overview of national institutions. A country's institutional profile reflects the country's institutional environment, which is defined as a collection of all relevant institutions as time progresses. Institutions can shape economic activities for businesses through formal and informal rules (North, 1990). Formal institutions refer to legally binding, formal rules of the game, and informal institutions refer to socially acceptable norms of conduct, cultural values, and customs (Xiao & Park, 2018).

Institutional distance is the difference between formal and informal institutions between countries (She et al., 2021; Shirodkar & Konara, 2017). Formal institutional distance refers to the difference in objective rules based on regulations and laws between countries (Moreira & Ogasavara, 2018). Informal institutions are socially imposed norms, codes of conduct, and practices that constrain the informal behaviors of enterprises (Zhang, 2020). The existing research based on the institutional perspective believes that the informal institutional distance represents the difference in the socially recognized norms and codes of conduct embedded in the ideology and social culture of the company, which is measured by the concept of culture (Ali et al., 2021; Keig et al., 2019; Kumar et al., 2021; Meso et al., 2021; Zhang & Srite, 2021). Culture is the main form of realization of informal institutions (Quer et al., 2012). Cultural distance reflects the differences in beliefs, concepts, norms, and values between countries (Azar & Drogendij, 2016). Therefore, informal institutional distance can be understood as the informal differences in beliefs, management, norms, and values between countries affected by different cultures (Sartor & Beamish, 2014).

Existing research on institutional distance in the context of IB is limited. First, previous studies rarely distinguish between the different effects of formal and informal institutions (Keig et al., 2019; Sartor & Beamish, 2014; Schwens et al., 2011). Formal institutions take regulations and laws as the core and are influenced by the government's institutional construction and adjustment. The higher degree of formal institutions is reflected in the adequate protection of intellectual property rights and the effective market competition mechanism, which promotes the innovation ability of firms (Li, Liang, Wang et al., 2021; Mengesha et al., 2021; Sun, Yu, Chen et al., 2021; Xiao & Park, 2018; Yao et al., 2021; Zhang et al., 2021). However, informal institutions with culture as the core are regarded as a static measure because they might not change in the short term (Keig et al., 2019).

Whether the difference in the cultural distance creates obstacles or provides incentives for knowledge transfer between foreign and domestic firms is still a topic of discussion in current research (Beugelsdijk et al., 2018; Borodako et al., 2021; Keig et al., 2019; Sartor & Beamish, 2014; Trappey et al., 2021; Uniyal et al., 2021; Zhang et al., 2021). Second, although IB research has increasingly focused on cross-country differences in institutions, few studies have explored the impact of institutional distance on the relationship between FDI and domestic firm performance. Existing studies have extensively explored the impact of distance factors on multinational enterprises, including entry mode choice (Chang et al., 2012; Han et al., 2021; Law et al., 2021), firm performance (Shirodkar & Konara, 2017), and international marketing strategy (Hoorn & Maseland, 2016). Therefore, this study attempts to investigate the distinction between formal and informal institutional distance and its impact on the presence of foreign firms on the performance of new ventures in the home country.

Moderating effect of formal institutional distance

We argue that the larger formal institutional difference between the host country and the home country weakens the threat of the presence of foreign firms to domestic new ventures, which mainly benefits from the policy arbitrage behavior and risk preference of foreign firms. First, policy arbitrage mainly comes from the difference in operating costs caused by institutional differences between countries (Li & Zhou, 2017). The primary purpose of foreign firms entering the domestic market is to benefit from the market conducive to corporate innovation and establish and maintain subsidiaries at lower operating costs (Rosenbusch et al., 2019). As a shortcut to taking advantage of market opportunities and acquiring assets, foreign firms bypass the home country's system and market restrictions to implement outward FDI by establishing development centers, research institutions, and subsidiaries (Yu et al., 2021). To gain competitive advantages in the domestic market, foreign firms tend to transfer their management technology and innovation ability to the domestic market (Mallon & Fainshmidt, 2017). Second, implementing outward FDI by foreign firms is a long-term development strategy (Yu et al., 2021). Therefore, once the large-scale investment of foreign enterprises in the domestic market makes them occupy a particular market share, they will summarize the corresponding experience in product sales, enterprise management, transaction negotiation, and screening targets (Yu et al., 2021). From the perspective of advantage accumulation and long-term development, foreign enterprises choose high-risk investments in markets with larger institutional distances, achieving high returns. The continued expansion of foreign firms in local markets with greater formal institutional distance contributes to establishing domestic entrepreneurial ecosystems in the home market by cultivating people with specialized skills and transferring innovative capabilities and management techniques, which could benefit the domestic new ventures' performance.

Therefore, we hypothesize the following:

Hypothesis 2. The formal institutional distance between the national origin of foreign firms and China has a positive moderating effect on the relationship between the strength of foreign firm presence and new venture performance.

Moderating effect of informal institutional distance

We further argue that informal institutional distance causes attraction rather than pressure; the larger informal institutional difference between the host country and the home country also weakens the threat of foreign firms' presence to domestic new ventures. This is because domestic new ventures are more interested in knowledge from foreign firms with larger informal institutional differences

and continuously accumulate experience to improve performance in knowledge acquisition (Al-Hasan et al., 2021; Krammer, 2018). First, domestic new ventures may be more interested in the resources and knowledge owned by foreign companies that they lack, from which they can obtain new behavioral methods and ways of thinking (Rodrigues et al., 2020). The different cultures of foreign firms shape their reasoning and mindset, which further affects their innovation output and business behavior (Li & Wang, 2021; Miao et al., 2016; Qi et al., 2021; Sultana et al., 2021; Y. Sun et al., 2021; Sun, Wang, Chen et al., 2021; Yang & Yi, 2021). Second, the decisive competitive advantage of foreign firms stems from the development of knowledge in different cultures (Regner & Zander, 2011). Knowledge is the basis of firm value creation. We argue that the cultural distance can serve as a complementary opportunity for domestic new ventures and foreign firms to complement and understand the use of cultural resources, thus bringing positive results for new ventures to gain FDI knowledge spillovers.

Therefore, we hypothesize the following:

Hypothesis 3. The culture distance between the national origin of foreign firms and China has a positive moderating effect of the relationship between strength of foreign firm presence and new venture performance.

Moderating effect of foreign experience

Previous business and management literature have indicated that executives with different functional backgrounds have various knowledge and perspectives to make different decisions (Yuan & Wen, 2018). Hambrick and Mason (1984) propose the upper echelons theory (UE), which states that the background characteristics of top management teams can be used to predict organizational decisions to a certain extent. Based on previous research, UE theory assumes that the demographic characteristics of executives such as age, education, functional background, and personality are used to filter and interpret information to make strategic decisions.

Past research has confirmed that firms with international experience executives will have better performance (Yuan & Wen, 2018). The foreign experience of executives provides skills that may not be available from other sources and is therefore irreplaceable (Clarke et al., 2013); because of the unique historical conditions, it is impossible to imitate (Barney, 1991), therefore, the foreign experience of executives is valuable to the firm's performance (Clarke et al., 2013). Past literature also proposes that foreign experience helps executives have a global mindset to help their firms participate in global business. We propose that domestic firms with executives that have foreign experience will be more conducive to firms learning FDI knowledge spillovers.

Therefore, we hypothesize the following:

Hypothesis 4. The executives' foreign experience of domestic new ventures has a positive moderating effect on the relationship between the strength of foreign firm presence and new venture performance.

Moderating effect of learning orientation

Learning orientation (LO) is defined by scholars as the creation and use of activities that enhance competitive advantage within the organization (Mahmoud et al., 2016). The higher the level of learning orientation, which can indicate that the greater the willingness of domestic new ventures to learn FDI knowledge spillovers, however, the current research on FDI knowledge spillovers has used macro data such as research and development expenditure and human capital (to represent the absorption capacity (Shaban et al., 2021; Wilson & Perepelkin, 2022) of local companies for FDI knowledge spillovers, but ignores the differences in the intrinsic capabilities of different

types of firms. LO includes access to information about market changes and competitor behavior, as well as research into new technologies to create products that outperform competitors, which are the key features for domestic new ventures to acquire FDI spillover (Calantone et al., 2002; Zheng, Bai & Cross, 2021). Past literature suggested that LO promotes behavioral change, and leads to improved performance (D'Angelo & Presutti, 2019). With the rapid development of internationalization, foreign firms and domestic new ventures have become more interconnected. The ability to know how to increase knowledge is undoubtedly a key factor for the new ventures' success (Lee & Tsai, 2005).

Therefore, we hypothesize the following:

Hypothesis 5. The higher learning orientation of domestic new ventures has a positive moderating effect on the relationship between the strength of foreign firm presence and new venture performance.

Methodology

Data and the sample

The data source for this paper is a combination of publicly available official data and questionnaires. Our data comes from the 2017 annual national survey database of the National Bureau of Statistics (NBS) of China. Each year, the NBS collects key financial and demographic information from provinces and cities, including the actual number of FDI and the number of employees in the region. The employment population and comprehensive information on foreign trade collected by the NBS will be published in the official China Statistical Yearbooks of various provinces, cities, and industries (Park et al., 2006). This database contains the most comprehensive information about FDI and local firms (Tian, 2007). Past empirical analysis proves that the data of NBS is largely accurate and has been widely applied to IB and strategic management research (Chang & Xu, 2008; Tian, 2007). This paper also uses data from the Global Competitiveness Report (GCR), which is based on the Global Competitiveness Index. GCR is published annually by the World Economic Forum (WEF), which data has been widely applied to empirical research by scholars (Chao & Kumar, 2010; Peng et al., 2022).

To test the proposed hypotheses, we also conducted a survey to collect data from Chinese new ventures. First, we developed a questionnaire based on previous research and revised it based on consultations with senior supervisors in strategic management and international business. We then conducted a pilot test of the 10 firms using the first draft of the questionnaire. The final study excluded firms' data that was used for pilot testing. We then further revised the questionnaire based on feedback from the pilot test. The questionnaire was first written in English and then translated into Chinese by a third party to ensure that there is no substantive difference in the meaning of the Chinese-English translation scale. The appendix lists all items in the questionnaire. We approached potential new ventures, identified through two leading VC investment platforms—China Venture Source (CVSource) and Zero2IPO—and other entrepreneurial and innovation parks (e.g., Beijing Zhongguancun Science Park). Target firms must meet the following selection criteria: (1) less than 10 years old; (2) the industry they conducted business has a foreign firm presence; and (3) have more than 10 employees. We invited the founder CEOs to answer our questions and send a reminder to potential participants. We started the survey in December 2018, and by April 2019 we distributed 220 questionnaires and 150 were received. Finally, we assessed the completeness of the collected questionnaires. In total, 47 invalid questionnaires were deleted, leaving 103 valid questionnaires.

Measurement

Dependent variable

New venture performance. Firm performance is an indicator of the quality of organizational strategic choices and the completion of objectives, which is defined as the effectiveness of the organization (Cameron, 1978). Since new ventures are not listed companies with publicly available operational data and financial reports, referring to [Zheng et al. \(2021\)](#)'s research, we used the perceived performance indicators to measure new ventures' performance. We asked respondents to assess the financial performance (profitability) of the new venture by evaluating growth compared to the previous fiscal year, then based on the eight-point scale for positive performance (1 = 0 ~ 25% and 8 = 176 ~ 200%) to assess the performance.

Independent variable

Foreign firm presence. Scholars have not yet agreed on the measurement methods for the existence of FDI ([Chang & Xu, 2008](#)). Previous studies used variables to reflect the presence of foreign entrants, such as the share of equity owned by foreign firms ([Aitken & Harrison, 1999](#)), the percentage of equity owned by foreign firms, and the share of employment of foreign entrants ([Chang & Xu, 2008](#); [Tian, 2007](#)). Since the employment share of foreign entrants has been widely used by previous studies to measure the foreign firm presence, this study used the ratio of total employment in the employment of foreign firms in the provincial region to measure the foreign firm presence. A region in China is defined as a province such as Jiangsu, a municipality directly under the central government, such as Shanghai, or an autonomous region such as Inner Mongolia ([Xiao & Park, 2018](#)). Relevant employment data is obtained through the provincial statistical yearbooks published by the provinces, which are collected by the NBS. The location information of the new venture is obtained through the respondents in the questionnaire.

Moderating variables

Formal institutional distance. Referring to the investigation of [Berry et al. \(2010\)](#), we adopted political distance to measure the formal institutional distance. Data for political distance were collected from the Global Competitiveness Report. Political distance was measured through the institutions' pillar of the Global Competitiveness Report, which contains public institutions (property rights, ethics and corruption, undue influence, public-sector performance, and security ([Lu, Shen, & Vijayakumar, 2021](#); [Raj & Pani, 2022](#); [Singh & Gupta, 2022](#))) and private institutions (corporate ethics and accountability).

For formal institutional distance measurements, we use the distance formula of [Kogut and Singh \(1988\)](#). The following metric is used for each metric and produces a distance metric for each distance in our hypothesis (ie, political and economic):

$$\text{Political Distance}_j = \sum_{k=1}^n \left[\frac{(P_{kj} - P_{kc})^2}{V_k} \right] / n$$

In this formula, P_{kc} represents the index for k th institutional dimension of China, j stands for the investment country of the FDI inflow, V_k indicates the variance of the index of the k th institutional dimension, and n is the number of indexes for the particular type of distance.

In the empirical analysis, we used data from the 2017 Statistical Yearbooks, which is collected by the NBS and published by provincial administrative regions. The particular country with an investment share of over 5% of the total foreign investment in the year was defined as 'the main source of FDI in the region and used to calculate the distance between different provinces and their major FDI source countries. Then we compare the provinces' distances with the average 'distance of all the provinces included in the questionnaire's

responses. The dummy variable is applied to analyze the results, 0 indicates the distance between each province and its main FDI source countries is less than or equal to the average value; 1 stands for the distance greater than the average value.

Informal institutional distance. We use the [Kogut and Singh \(1988\)](#) indices to calculate cultural distance, by extending Hofstede's six-dimensional model ([Hofstede & Minkov, 2010](#)) including Power Distance, Uncertainty Avoidance, Individualism versus Collectivism, Masculinity versus Femininity, Long-term versus Short-term and Indulgence versus Restraint. The high score of this measure means that the cultural distance between China and each FDI source country is greater.

For cultural distance measurements, we used the distance formula of [Kogut and Singh \(1988\)](#). Essentially, the formula uses a set of variables to calculate the overall separation between two countries. The following metric is used for each metric and produces a distance metric for each distance in our hypothesis (i.e., political, economic, and cultural):

$$\text{Cultural Distance}_j = \sum_{k=1}^n \left[\frac{(C_{kj} - C_{kc})^2}{V_k} \right] / n$$

In this formula, C_{kc} represents the index for k th cultural dimension of China, j stands for the national origin of a foreign firm, V_k indicates the variance of the index of the k th cultural dimension, and n is the number of indexes for the distance. Thus, the larger values in the cultural distance calculations represent the greater separation between the national origin of a foreign firm and China. In the empirical analysis, we adopted the same data collection and processing method as the measurement of political distance in the selection of the major source countries of FDI, and the specific steps have been mentioned above.

Foreign experience. Previous research used various methods to measure the international experience of executives, which mainly depended on the number of years of international assignments ([Carpenter & Fredrickson, 2001](#)). Because the internationalization of executives is a multidimensional phenomenon, a more comprehensive dimension is needed to fully measure the international experience of executives ([Lee & Park, 2006](#)). Some studies measure foreign experiences by combining a composite index generated by several types of international experience ([Lee & Park, 2008](#)). We refer to the study of [Conyon et al. \(2019\)](#) to measure foreign experience by analyzing three different types of executive international experience, such as foreign nationality, overseas work experience, and overseas study experience. We introduce dummy variables (0 = no; 1 = yes) to analyze whether new venture executives have the above three types of foreign experiences.

Learn orientation. We developed the seven-point scale (1 = not at all and 7 = very much) to measure the learning orientation of the new venture with reference to [Calantone et al. \(2002\)](#). [Calantone et al. \(2002\)](#) proposed four components of learning orientation: the common vision refers to the whole firm's attention to learning; the learning commitment refers to the degree to which the firm attaches importance to learning knowledge; the open mind involves critically evaluating the firm's acceptance of new ideas; the knowledge sharing involves behavioral practices or willingness to communicate with different units within the firm.

Control variables

Based on previous research on FDI, we used several firm and executive characteristics as control variables in the analysis. The firm-level includes the type of business, which indicates whether the new venture's business-main area is manufacturing or others and controls the possible differences between manufacturing and service firms ([Anderson, 1993](#)). We use dummy variables to measure the business type, which encodes the new venture in the service industry as 1 and

a manufacturing-type business as 0. Previous research has shown that firm size has a significant impact on firm performance (Dong et al., 2022). Therefore, we use firm size as a control variable, which refers to the number of full-time employees (log transformation). In addition, we use dummy variables to control whether the new venture has a marketing department (0 = no and 1 = yes). Past research has pointed out that the market sector may be a bridge between domestic and foreign firms, which has a certain impact on transferring knowledge and skills (Jin et al., 2019). At the new venture's executive level, we control the age and gender of the CEO, which have been confirmed by past research to have a certain impact on the firm's performance (Conyon et al., 2019).

Reliability and validity

The consistency between items is assessed by composite reliability, which is estimated using Cronbach's alpha. Generally, the sufficient reliability factor is considered to be 0.70 or higher. By analysis, all Cronbach alpha values are higher than 0.70. The results indicate high internal consistency and reliability. Construct validity refers to the extent to which the components on the scale measure the theoretical construction. The recommended minimum level for establishing a project load on a scale is a load of 0.6 (Fornell & Larcker, 1981). The load on all projects are higher than 0.6, therefore, the results indicate the reliability of individual component and the statistical significance of the relationship between components and structures.

Result

Descriptive statistics

Table 1 presents the summary statistics and correlation matrices for all the variables used in this investigation. Regarding the correlation coefficient matrix, there are some variables whose correlation coefficient values are higher than 0.30, such as economic distance and cultural distance (0.963), economic distance, and political distance (0.470), which are all moderator variables. In the empirical analysis, moderator variables are associated with different models. The correlation coefficients between the regulatory variables and the independent variable are less than 0.30. We conducted the value inflation factor (VIF) analysis to test the multicollinearity problem, and the results ranged from 1.01 to 1.36, with an average VIF value of 1.21, and all the results were less than 2. The results of the VIF analysis show that our analysis is not affected by the multicollinearity problem.

Main hypotheses tested

We chose ordinary least squares (OLS) analysis to generate multiple regression models for data analysis. Specifically, our econometric modeling was organized into two steps. First, a basic model that tests the main hypothesis is constructed as a benchmark, which involves only the effects of inward FDI and control variables on new venture performance. Second, we introduced formal and informal institutional distance, foreign experience, and learning orientation indicators and constructed interaction terms to investigate the impact of internal and external environmental variables on the relationship between inward FDI and new venture performance. Table 2 presents the test results of our hypothesis. Our empirical test procedure begins with Model 1, which includes the foreign firm presence and all control variables. Model 1 examines the impact of the foreign firm's presence on the domestic new venture performance. The results show that the foreign firm presence has a significant negative coefficient ($\beta = -1.826$; $p < 0.05$), thus supporting hypothesis 1, which is the foreign firm presence has a negative impact on the new venture performance. The result consistent with previous research proposed that foreign firm presence increased the domestic market's competition and appealed to most skilled laborers thus having a negative impact on domestic new ventures' performance (Xiao & Park, 2018).

Moderating hypotheses tested

In Model 2, we tested the moderating effect of formal institutional distance. The results show that political distance ($\beta = 2.789$; $p < 0.05$) significantly weakens the negative correlation between the foreign firm presence and domestic new venture performance thus supporting hypothesis 2. This is consistent with previous research that the continued expansion of foreign firms in local markets with greater formal institutional distance contributes to establishing domestic entrepreneurial ecosystems in the home market by cultivating people with specialized skills and transferring innovative capabilities and management techniques, which could benefit the domestic new ventures' performance (Patil et al., 2017; Mallon & Fainshmidt, 2017; Yu et al., 2021; Zheng, Xiong, Chen & Li, 2021, 2021, 2022; Zheng, Zhang, Wang & Hong, 2022). The graph of this moderating effect is shown in Fig. 2. This finding implies that the negative relationship between foreign firm presence and domestic new venture performance will be weakened (strengthened) when the formal institutional distance between the national origin of foreign firms and China is larger (less).

In Model 3, we tested the moderating effect of informal institutional distance. The results show that cultural distance ($\beta = 4.18$; $p < 0.05$) significantly weakens the negative correlation between the foreign firm presence and domestic new venture performance thus supporting hypothesis 3. The result indicates that domestic new ventures are more interested in knowledge from foreign companies

Table 1
Descriptive statistics and correlation matrix.

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1 FDI spillover	0.249	0.149	1.00									
2 Cultural distance	0.144	0.353	-0.20*	1.00								
3 Political distance	0.452	0.500	-0.29**	0.45**	1.00							
4 Foreign experience	0.702	0.460	0.01	-0.03	0.04	1.00						
5 Learn orientation	3.462	0.891	0.25**	0.19	0.05	0.03	1.00					
6 Industry	0.365	0.484	-0.02	-0.03	-0.05	-0.34**	-0.10	1.00				
7 Size	2.133	0.619	-0.23*	-0.05	0.02	0.01	-0.14	0.17	1.00			
8 Firm marketig	0.942	0.234	-0.07	0.10	0.14	0.02	-0.01	0.10	-0.14	1.00		
9 CEO age	45.019	8.384	0.29**	-0.09	-0.21*	-0.21*	0.05	0.30**	0.11	-0.19	1.00	
10 CEO gender	1.221	0.417	-0.14	-0.02	0.12	0.15	-0.02	-0.12	-0.18	0.13	-0.24*	1.00

a. N = 103.
b. * Significant at 5 percent level.
c. **Significant at 1 percent level.

Table 2
Ordinary least squares regression analysis for new venture performance.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-0.01 (0.993)	0.239 (0.825)	-0.003 (0.997)	-0.787 (0.451)	0.139 (0.905)
Industry	-0.477* (0.047)	-0.405* (0.09)	-0.449 (0.059)	-0.286 (0.231)	-0.489** (0.04)
Size	0.023 (0.902)	-0.018 (0.922)	0.013 (0.944)	-0.045 (0.802)	0.068 (0.713)
Firm marketig	0.686 (0.181)	0.639 (0.208)	0.656 (0.198)	0.619 (0.208)	0.604 (0.231)
CEO age	0.043* (0.004)	0.042** (0.004)	0.045** (0.002)	0.049*** (0.001)	0.049*** (0.001)
CEO gender	-0.302 (0.261)	-0.385 (0.151)	-0.259 (0.334)	-0.419* (0.108)	-0.262 (0.321)
FDI spillover	-1.826* (0.023)	-2.32** (0.017)	-2.282*** (0.008)	-0.689 (0.579)	-7.794** (0.014)
Political distance		-0.29 (0.512)			
Cultural distance			-0.631 (0.225)		
Economic distance					
Foreign experience				1.205*** (0.007)	
Learn orientation					-0.137 (0.51)
FDI spillover x Political distance		2.789* (0.095)			
FDI spillover x Cultural distance			4.18* (0.064)		
FDI spillover x Foreign experience				-1.941 (0.194)	
FDI spillover x Learn orientation					1.654* (0.061)
R ²	0.135	0.178	0.168	0.225	0.186
Number of observations	103	103	103	103	103

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; t statistics in parentheses.

with larger informal institutional differences and continuously accumulate experience to improve performance in knowledge acquisition (Krammer, 2018). The graph of this moderating effect is shown in Fig. 3. This finding implies that the negative relationship between foreign firm presence and domestic new venture performance will be

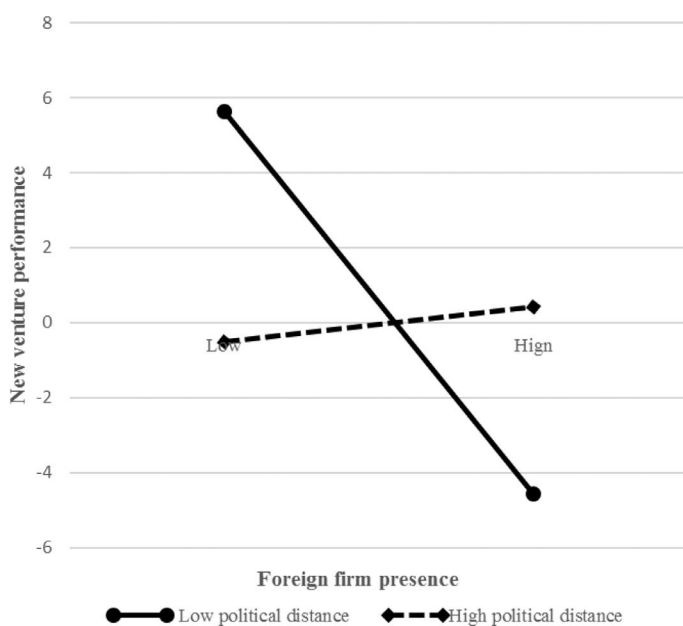


Fig. 2. Moderating effect of formal institutional distance on the relationship between FDI spillover and domestic new venture performance.

weakened (strengthened) when the informal institutional distance between the national origin of foreign firms and China is larger (less).

In Model 4, we tested the moderating effect of executives' foreign experience. The results show that foreign experience insignificant weakens the negative correlation between the foreign firm presence

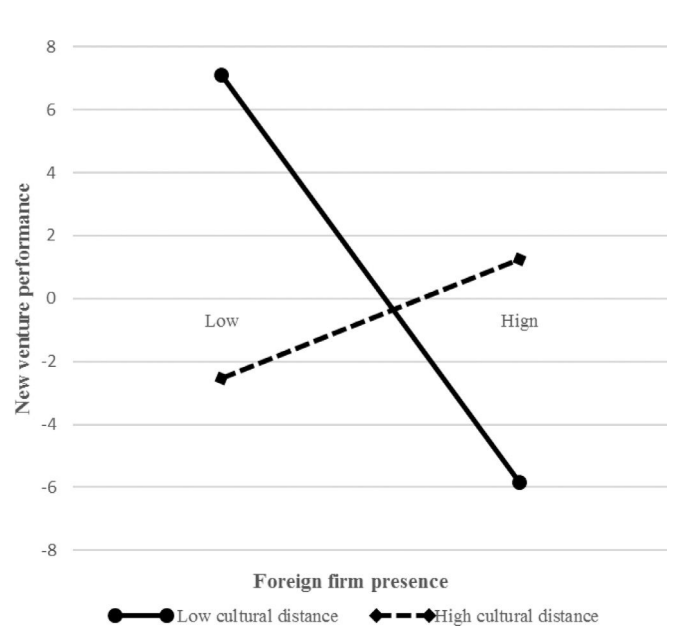


Fig. 3. Moderating effect of informal institutional distance on the relationship between FDI spillover and domestic new venture performance.

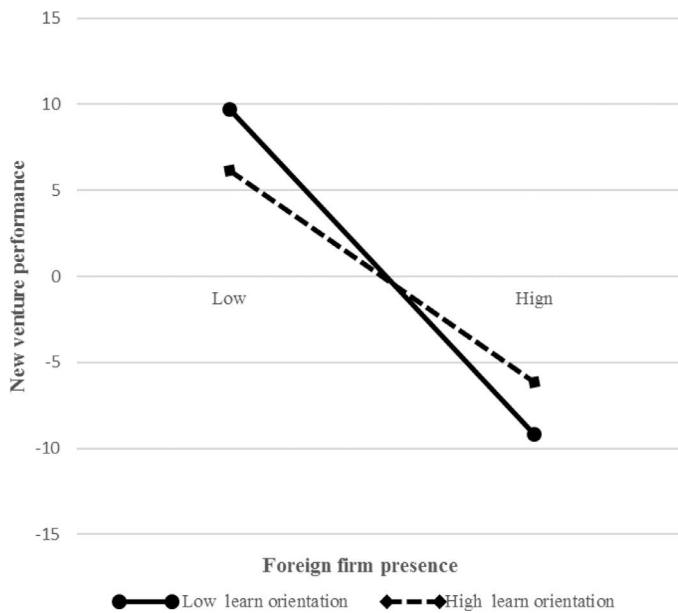


Fig. 4. Moderating effect of learning orientation on the relationship between FDI spillover and domestic new venture performance.

and domestic new venture performance thus hypothesis 3 cannot be supported. A possible explanation could be foreign firms entering the local market have different backgrounds. The foreign experience of executives is not always applicable. Company executives may draw incorrect inferences from existing expertise and misapply them to varying scenarios of absorbing FDI spillovers (Tan & Sousa, 2019). Model 5 presents the tested moderating effect of learning orientation. The results show that cultural distance ($\beta = 1.654$; $p < 0.05$) significantly weakens the negative correlation between the foreign firm presence and domestic new venture performance thus supporting hypothesis 3. The result indicates domestic new ventures' capability to access information about market changes and competitor behavior, as well as research into new technologies to create products that outperform competitors could help them acquire FDI spillover (D'Angelo & Presutti, 2019). The graph of this moderating effect is shown in Fig. 4. This finding implies that the negative relationship between foreign firm presence and domestic new venture performance will be weakened (strengthened) when the level of domestic new ventures' learning orientation is higher (lower).

Discussion

Based on inward FDI data of China, this study examines the impact of the presence of foreign firms on the performance of domestic new ventures. Furthermore, we introduce formal and informal institutional distance, executives' foreign experience, and the learning orientation of new ventures as moderating variables to examine their impact on the relationship between the presence of foreign firms and domestic new ventures' performance. The empirical results indicate that foreign firm presence significantly negatively impacts domestic new venture performance. Meanwhile, we find that the national origin of foreign firms with higher institutional distances (political and cultural distances) compared with China could weaken the negative influence of these foreign firm presence on Chinese domestic new venture performance. Compared with external factors, the internal factors of new ventures have a limited impact, whereas those with higher learning orientation will weaken the negative impact of the foreign firm's presence. However, the impact of foreign experience is not significant.

Theoretical implications

This study builds on previous research and makes several theoretical contributions to the related literature. First, this study contributes to an ongoing discussion of the foreign entrants' impact on domestic firms in the host market. Previous research is limited because it has assumed domestic firms in the host market as indiscriminate recipients of FDI knowledge spillovers and did not distinguish FDI knowledge spillovers' impact on different types of domestic firms (Xiao & Park, 2018). Scholars only concentrated on the effects of different ownership structures (Chang & Xu, 2008) and heterogeneous institution environments (Xiao & Park, 2018) in host markets on FDI knowledge spillovers from established firms' investigations (Jiang et al., 2018), whereas with insignificant attention to domestic new ventures. We find that foreign firm presence has a negative impact on the new venture's performance. The result consistent with previous research proposed that foreign firm presence increased the domestic market's competition and appealed to most skilled laborers thus having a negative impact on domestic new ventures' performance.

Second, this study contributes to research on IB in emerging economies that increasingly focused on the institution-based perspective as an essential paradigm of organizational phenomena in IB strategy (Kim et al., 2010; Slesman et al., 2021; Xiao & Park, 2018; Uddin et al., 2019). Previous studies rarely distinguish between the different effects of formal and informal institutions (Keig et al., 2019; Sartor & Beamish, 2014; Schwens et al., 2011). Although IB research has increasingly focused on cross-country differences in institutions, few studies have explored the impact of institutional distance on the relationship between FDI and domestic firm performance. This study enriches existing IB research involving institutional theory by exploring the distinction between formal and informal institutional distance and its impact on the presence of foreign firms on the performance of domestic new ventures.

Third, this research enriches existing research on the impact of FDI on the domestic new venture by investigating the moderating effect of external and internal variables of this relationship. Previous research has recognized the importance of studying the FDI's influence on domestic business in emerging markets. However, it is still unclear what factors can be adopted to circumvent the potential threats of foreign firms to local businesses. The external formal and informal institutional factors and internal learning and absorption factors have been extensively documented in previous studies to explain general strategic choices, especially in emerging economies. However, studies incorporating these factors into FDI research and understanding the impact of foreign firms on the performance of new companies are limited. Therefore, this study contributes to the IB literature by providing evidence of the negative relationship between foreign firm presence and domestic new venture performance and the moderating effect of external and internal variables on this relationship.

Practical implications

Our findings also bring some important practical significance to managers. This research shows that foreign firm presence threatens the domestic new venture. When foreign firms enter emerging markets, we recommend that managers of domestic new ventures understand the potential threats of foreign competitors. One of the problems faced by domestic business managers is avoiding the adverse effects of foreign firms. More specifically, we suggest two types of critical factors that new ventures can mitigate the negative impact of foreign firms' presence.

First, the main problem faced by new ventures in the market compared with established enterprises is the lack of external resources and social connections, which also makes them often at a disadvantage in market competition. When choosing collaboration with

foreign firms, new ventures need to consider the difference in institutional distance. The purpose of foreign firms entering the local market is to list the local market as one of their target markets and use their technological and management advantages to enter the local market to obtain higher returns. The entry of these foreign firms often brings about intense market competition, including competition for highly skilled employees, limited resources, and target customers, thus crowding out domestic new ventures. However, the continued expansion of foreign firms in local markets with greater formal institutional distance contributes to establishing domestic entrepreneurial ecosystems in the home market by cultivating people with specialized skills and transferring innovative capabilities and management techniques, which could benefit the domestic new ventures' performance. In addition, greater informal institutional distance represents more significant differences in technical and managerial knowledge. Multinational enterprises are usually regarded as pioneers in using innovative technologies in their industries, and the unique learning and absorption advantages of new ventures could help them absorb potential FDI spillovers more effectively, thus improving their performance.

Second, advanced learning ability has always been a critical internal factor for new ventures to gain an advantage in market competition. This study points out that learning orientation plays a significant role in weakening the negative impact of the presence of foreign firms on new ventures. Previous studies argue that the overseas experience of senior executives has significantly affected the performance of new ventures. However, our study finds no evidence that foreign experience attenuates the negative effect of foreign firms' presence on new venture performance. We can foresee that internationalization is the general trend. In today's rapid globalization, managers with overseas experience may not help companies learn FDI knowledge spillovers. This also means that managers, regardless of whether or not they have foreign experience, need to rely on their existing expertise to draw correct inferences and apply them correctly to different scenarios of absorbing FDI spillovers.

Limitations and future opportunities

First, we investigated only one key performance indicator (profitability) in this study to measure the impact of the presence of foreign firms on domestic new ventures in emerging economies. However, domestic new ventures can implement various strategies to cope with the uncertain environment created by the presence of foreign firms in the market. Such as research and development intensity, joint ventures and foreign investment. Future research can explore the impact of the presence of foreign firms on the strategy of domestic firms. This will help to further understand the different strategies used by domestic firms to cope with the knowledge spillover or fierce competition brought about by the presence of foreign firms. Second, future research can extend our study to explore the impact of the presence of foreign firms on domestic firms in specific industries. Take domestic manufacturing firms in China as an example. China's manufacturing industry relies on a sound supply chain system to attract a large number of foreign manufacturing firms with advanced technology (for example, Tesla), while the establishment of industrial parks across the country has also nurtured a number of domestic advanced manufacturing firms (for example, Shenzhen BYD Auto Industry Company Limited). On the one hand, foreign firms cooperate with domestic suppliers, on the other hand, they compete with domestic manufacturers. Therefore, future research can explore this coexistence of competition and cooperation to achieve interesting results. Third, although our focus is on China, we believe external and intrinsic variables can be applied to other emerging economies, as there may be significant external institutional changes and changes in internal learning capabilities. Therefore, future work can apply our research to other emerging markets and examine how the presence of foreign firms affects the performance of domestic new ventures

and whether external and internal variable studies are appropriate for all emerging economies. Comparative research between emerging economies will be an interesting approach to future research.

Appendix

Measurements included in the questionnaire.

Information at the firm level

- 1) Please indicate the industry in which the new venture operates: ____.
- 2) Please indicate the year new venture established: ____.
- 3) Please indicate the city new venture's headquarter locate: ____.
- 4) Please indicate the number of employees new venture currently has: ____.
- 5) Please selected the following average of increased range to indicated the average growth of your firm's profitability for the past three years:
Your firm's average profit growth rate: ____.

A.0~25%; B.26%~50%; C.0.51%~75%; D.76%~100%; E.101%~125%; F.126%~150%; G.151%~175%; H.176%~200%

Information at the individual level

- 1) Please indicate the age of CEO: ____.
 - 2) Please indicate whether executives have bellowing foreign experience: ____.
- A. Executive comes from abroad; B. Executive comes from China, but have overseas study experience;
C. Executive comes from China, but have overseas work experience.
- Learning orientation: Thirteen items adopted from Calantone et al. (2002); (Strongly disagree = 1; Strongly disagree = 7)
- 1) The firm's fundamental values include that learning is the key to improvement.
 - 2) The firm views learning as an investment, not an expense.
 - 3) Learning is seen as the key to ensuring the survival of the firm.
 - 4) The top management team agrees that the firm's learning ability is key to industry competitiveness.
 - 5) All employees are committed to achieving the goals of the firm.
 - 6) Functions at all levels of the firm have the same vision.
 - 7) Employees consider themselves partners in setting the direction of the firm.
 - 8) The firm does not resent critical feedback from our customers.
 - 9) The firm's employees realized that their view of the market had to be constantly questioned.
 - 10) The firm continuously evaluates the reasonableness of its decisions.
 - 11) The firm continually analyzes failures and widely passes on lessons learned.
 - 12) The firm has dedicated mechanisms to share lessons learned from operations from division to division.
 - 13) There is a lot of dialog within the firm to learn from historical processes.

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