University of Groningen

Mimicry, Knowledge Spillover and Expatriate Assignment Strategy in Overseas Subsidiaries

Ge, Lipeng Gary; Qian, Cuili; Li, Jiatao

Published in:
Management International Review

DOI:
[10.1007/s11575-019-00396-5](https://doi.org/10.1007/s11575-019-00396-5)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2019

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Ge, L. G., Qian, C., & Li, J. (2019). Mimicry, Knowledge Spillover and Expatriate Assignment Strategy in Overseas Subsidiaries. *Management International Review*, 59(6), 981-1007.
<https://doi.org/10.1007/s11575-019-00396-5>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Mimicry, Knowledge Spillover and Expatriate Assignment Strategy in Overseas Subsidiaries

Lipeng Gary Ge¹ · Cuili Qian² · Jiatao Li³

Received: 28 February 2016 / Revised: 2 May 2019 / Accepted: 16 July 2019 / Published online: 27 August 2019
© Springer-Verlag GmbH Germany, part of Springer Nature 2019

Abstract

Based on neo-institutional theory and knowledge spillover, we argue that the probability of a firm assigning an expatriate manager to a foreign subsidiary is influenced by a combination of mimicry and knowledge spillover from any existing expatriate community in the foreign location. The expatriate community's influence is hypothesized to be weaker when the firm's ownership share in its foreign subsidiary is greater but stronger when the cultural distance between a firm's home country and the foreign host country is greater. Data on 95,156 foreign-invested manufacturing ventures in China is used to test these predictions. The findings show an inverted U-shaped relationship between the assignment of expatriates and the number of expatriates previously sent to the same location by prior foreign investors. This relationship is shown to be moderated by subsidiary ownership, but not by the cultural distance between the investor's home country and the host country. Implications for research and practice are discussed.

Keywords Expatriate assignment · Expatriate community · Mimicry · Knowledge spillover · China

The authors contributed equally to the paper.

✉ Jiatao Li
mjtl@ust.hk

¹ Department of Global Economics and Management, University of Groningen, Groningen, The Netherlands

² Organization, Strategy, and International Management, Naveen Jindal School of Business, University of Texas at Dallas, Richardson, TX, USA

³ Department of Management, Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong

1 Introduction

In a global economy, overseas assignment of personnel is often a competitive necessity for multinational corporations (MNCs) (Kraimer et al. 2016; Riaz et al. 2014). Studies have emphasized expatriates' role in constraining overseas subsidiaries' opportunistic behavior (Tan and Mahoney 2006), transferring useful knowledge from headquarters to subsidiaries (Berry 2017; Chang et al. 2012; Harzing et al. 2016; Kawai and Chung 2019), bringing host country's business opportunities to headquarters' attention (Plourde et al. 2014), and creating an informal network that facilitates coordination within the MNC (Belderbos and Heijltjes 2005; Belderbos et al. 2014). But, expatriates face the challenges of adjusting themselves to the host country environment. And maladjustment results in a high failure rate of overseas assignment with financial loss for the MNC (Takeuchi 2010). Thus, it is critical for an MNC to understand when expatriates should be sent out.

Scholars have examined some of the key factors determining the expatriate staffing strategies used in foreign subsidiaries (Brock et al. 2008; Gong 2003; Paik and Ando 2011; Peng 2012; Peng and Beamish 2014; Shin et al. 2017; Tan and Mahoney 2003). A subsidiary's size and age, its equity ownership, its strategic role and importance, interdependence between the headquarters and the subsidiaries, and the parent firm's international experience have all been shown to be important predictors of expatriate staffing practices (Belderbos and Heijltjes 2005; Chang and Taylor 1999; Harzing 2001). Expatriation is most common in technology- and marketing-intensive industries, particularly in emerging economies like China where there is a lack of qualified local nationals (Delios and Bjorkman 2000). Cultural distance between the home and host countries has also been found to be positively related to the use of expatriates, largely because of potential agency problems and uncertainty about the host country environment (Boyacigiller 1990; Gong 2003; Harzing 2001; Shin et al. 2017). Finally, MNCs deploy more expatriates to their overseas subsidiaries when they pursue global integration as their strategic goal (Paik and Ando 2011).

Even though prior scholarly work on expatriate staffing has generated significant insights, it has been limited in two important ways. First, it has seldom considered the possible influence of inter-organizational relationships on expatriate assignment. Firms are not only affected by their own resources and ownership structure, they can also be influenced by what other firms do (Greve 2011; Guillén 2002; Haunschild and Miner 1997; Ozmel et al. 2017; Xie and Li 2017), including in forming their expatriation strategies (Williamson and Cable 2003). The neo-institutional theory suggests that firms tend to imitate their peers' practice, which is considered legitimate (DiMaggio and Powell 1983; Haunschild and Miner 1997; Meyer and Rowan 1977). While prior research has consistently reported a high failure rate or premature return of expatriates in overseas assignments (Black and Gregersen 1999; Takeuchi 2010), there is no evidence that MNCs are reducing their frequency of using expatriates. It is thus possible that MNCs send expatriates because other firms have previously done so.

Second, scholars have paid less attention to knowledge spillover from the expatriate community in a host location. Prior studies have mostly focused on

expatriates' role in transferring knowledge within an MNC: from the headquarters to the overseas subsidiaries or vice versa (Chang et al. 2012; Harzing et al. 2016). They have paid less attention to the fact that knowledge spillover tends to occur between expatriates and host country nationals in the same location. Research has documented the impact of geographical proximity on knowledge spillover (Alcacer and Chung 2014; Shaver and Flyer 2000), which is an important driver for the geographical concentration of organizations (Chang and Park 2005; Kalnins and Chung 2004). Knowledge spillover from agglomerating with others can facilitate firms' access to critical knowledge (Alcacer and Chung 2007; Lamin and Livanis 2013), which can be related to production systems or process technology, as well as to management, distribution and marketing skills (Singh 2007). At the same time, host country personnel can also benefit from knowledge spillover from the community of expatriate managers, improving their skills and knowhow and reducing later entrants' need to use expatriates. Taking account of knowledge spillover might therefore help clarify the relationship between the expatriate community and MNCs' expatriate staffing decisions.

Building on neo-institutional theory and the knowledge spillover argument, this study is designed to examine expatriate staffing practices when an MNC enters an emerging economy. The study investigate two questions: (1) how does the number of expatriates sent by previous investors in the same geographical location affect an MNC's expatriate assignment decisions? And (2) will such a relationship be moderated by a parent MNC's ownership in the subsidiary and cultural distance between the parent MNC's home country and the host country? The presence of many expatriate managers in a location may signal successful expatriate adjustment in that local environment, but it may also signal a lack of qualified local nationals. Firms mimic their peers' expatriate staffing when expatriation practice is frequently adopted. Based on neo-institutional theory, we argue that the number of expatriates used by prior firms influences probability of subsequent expatriation. On the other hand, knowledge spillover from expatriate communities should help develop a pool of increasingly-qualified local nationals, particularly in emerging economies, reducing the need for expatriates. Taken together, we suggest that a combination of mimicry and knowledge spillover may result in an inverted U-shaped relationship between the assignment of expatriates and others' assignments.

Parent MNCs' equity ownership in their subsidiaries and cultural distance between the MNCs' home countries and the host country are likely to be critical contingent factors affecting any such relationship. Specifically, the increased control associated with equity ownership might be expected to weaken the impact of the expatriate community's influence on expatriation decisions. But greater cultural distance between an MNC's home country and the host country might strengthen that impact because of increased uncertainty. Figure 1 shows a conceptual model of this study.

This study draws upon a comprehensive data set on foreign-invested manufacturing ventures in China to test these hypotheses. China is a large emerging economy where foreign firms often encounter substantial uncertainties. In an uncertain environment, social considerations and peers' actions are likely to influence firms' decisions (Kostova and Zaheer 1999; Scott 2002). The emerging economy context

Fig. 1 The conceptual model

also makes the knowledge spillover perspective appropriate for explaining firms' behaviors (Hoskisson et al. 2000) in a context where local nationals can benefit from knowledge spillover from expatriate employees (Delios and Bjorkman 2000).

2 Theoretical Background

2.1 Imitation of Legitimate Community Practices

Neo-institutional theory seeks to explain why firms behave similarly (DiMaggio and Powell 1983; Meyer and Rowan 1977). In particular, it argues that firms adopt the practices defined by their institutional context as legitimate (DiMaggio and Powell 1983; Tolbert and Zucker 1983). By conforming to the expectations of the stakeholders in the institutional context, firms gain legitimacy and have access to resources provided by those stakeholders (Meyer and Rowan 1977).

Neo-institutional theory has been widely applied in the international business literature (Kostova et al. 2008). In particular, studies have probed the process through which international expansion practices become institutionalized in a host country (Li et al. 2007). In this institutionalization process, whether a practice gains legitimacy depends on how well it fits with the prevalent social norms and values in the host country (Cantwell et al. 2010; Fortwengel 2017; Li et al. 2019). If the action is considered appropriate or desirable, that gives it legitimacy in the eyes of local stakeholders (Suchman 1995).

One critical source of legitimating influence is the organizational community (Hannan and Freeman 1989). The community refers to bounded sets of firms that have overlapped identities (Astley 1985) and defines the boundaries of legitimacy and competition (Ruef 2000). Scholars have found that a practice gains social acceptance and can be perceived as legitimate if it is frequently adopted by the firms in the same community (Haunschild and Miner 1997; Haveman 1993). Besides, in response to the uncertainty about the performance of a practice, firms look for cues

from their peers and imitate their behavior (DiMaggio and Powell 1983; Gaba and Terlaak 2013; Haunschild and Miner 1997; Lieberman and Asaba 2006; Ozmel et al. 2017). So the larger the number of organizations adopting a practice in the same community, the more likely that the practice will gain legitimating influence. A firm will thus face a high pressure to mimic that practice. As an example, studies have shown that foreign-invested firms more often choose the wholly-owned subsidiary as their entry mode when a large number of previous investors in that host country adopt the same practice and define its legitimating influences (Li et al. 2007).

2.2 Knowledge Spillover

The community defines the boundary of legitimacy, but clustering in the same community may also create possible knowledge spillover (Ryu et al. 2018). Research has suggested that spillover occurs among firms that are co-located (Alcacer and Chung 2014; Li and Xie, 2011; Shaver and Flyer 2000). The benefits of co-locating can include pre-existing production capacity, access to infrastructure and public goods, spillover of technical knowledge, a skilled local workforce, and competitive pressure to improve performance (Kalnins and Chung 2004; Porter 1998). Among the many ways in which a firm can profit, co-locating might facilitate hiring competitors' employees and gaining access to their technologies (Alcacer and Chung 2007; Gambardella and Giarratana 2010). Shaver and Flyer (2000, p. 1177) have shown that firms "will likely spill over its technology, have its employees lured to competitors, and share its suppliers and distributors with competitors" when they are co-located. Firms tend to locate near others possessing resources they need and which might spill over (Belderbos et al. 2011; Feinberg and Gupta 2004; Kalnins and Chung 2004). Studies have already found evidence that knowledge spillover through co-locating enables firms to upgrade their capability (Pe'er et al. 2016). In particular, emerging market firms upgrade their capability by co-locating with foreign firms which possess advanced technology and use superior management practices (Lamin and Livanis 2013).

In the following sections, we extend the arguments of neo-institutional theory and knowledge spillover to examine MNCs' expatriate staffing decisions.

3 Hypotheses

3.1 Research on Expatriation

According to Edström and Galbraith (1977), MNCs have three main motives in assigning expatriates to foreign subsidiaries. The first is to fill managerial and technical positions when qualified local nationals are not available. The second reason is for management development, as working in a foreign country will provide expatriate managers with international exposure and experience (Harzing 2001; Zhu et al. 2016). The third reason of using expatriates is related to organizational control and coordination (Delios and Bjorkman 2000; Riaz et al. 2014). Prior studies have

examined all three motives, with a particular focus on the first (knowledge transfer) and third (control and coordination). A review of selected studies is presented in Table 1.

Controlling and coordinating its subsidiaries' behavior and performance is of particular importance for an MNC facing a complex environment far from home both geographically and in terms of cultural distance (Ang et al. 2015). Expatriates help decision-making by aligning the operations of the unit with those of the parent firm (Edström and Galbraith 1977). Subsidiary and parent characteristics affect the need to use expatriates for control and coordination purposes. In particular, equity ownership, a subsidiary's strategic importance, and the parent firm's experience have been found to be key determinants of expatriate staffing (Belderbos and Heijltjes 2005; Chang and Taylor 1999; Shin et al. 2017).

Knowledge can be transferred through expatriates from the parent to the subsidiary, but also vice versa: the flow of organization-specific knowledge from the parent to the subsidiary, and the flow of market- or country-specific knowledge from the subsidiary to the parent (Chang et al. 2012; Harzing 2001; Harzing et al. 2016; Xie and Li 2015.). The better the parent's knowledge in areas such as marketing or technology, the more likely that expatriates will be used to transfer it to a foreign subsidiary (Belderbos and Heijltjes 2005). In countries where few local managers and professionals are available, MNCs will have to rely more on expatriates (Widmier et al. 2008). Prior research has also found that a parent firm's experience in a host country decreases its use of expatriates (Delios and Bjorkman 2000; Riaz et al. 2014). This is particularly so for subsidiaries in developing countries (Hocking et al. 2004).

As demonstrated above, MNCs' decisions to send expatriates can be affected by the extent to which they perceive any of the three motives are critical for their foreign subsidiaries' operation. MNCs are less likely to send expatriates when expatriates' role in control and coordination or their role in knowledge transfer is perceived as less important in a foreign subsidiary. Meanwhile, sending expatriates abroad can be costly, given that expatriate assignments have a high rate of failure (Takeuchi 2010). Expatriates often encounter adjustment difficulties in the host location, resulting in premature return (Zhu et al. 2016). When an MNC is uncertain about the effectiveness of assigning an expatriate, imitating other firms which entered the same foreign location earlier may offer a tempting solution. An established expatriate community in the foreign country may thus be a key factor in an MNCs' expatriate assignment decisions.

3.2 Expatriate Community and MNC Expatriate Staffing

A community of expatriated managers sent by prior investors might offer guidance for later entrants. For a firm entering a foreign market, the actions of other firms can provide valuable information to guide strategic decisions (Li et al. 2015; Yang et al. 2015). Such firms may actively seek out and rely upon the opinions and actions of their peers when formulating decisions, because similarity facilitates the transmission of reliable and detailed information. In the case of expatriate staffing, Belderbos and Heijltjes (2005) have explored why Japanese electronics firms appointed

Table 1 Selected research on the antecedents of expatriate staffing by MNCs

References	Sample	Theory	Findings
Edström and Galbraith (1977)	Interviews with four MNCs	Control and socialization	Expatriate functions: fill positions, management and organization development
Boyacigiller (1990)	A US bank with 84 branches in 43 countries	Contingency Resource dependence	Complexity, size, cultural distance (CD), interdependence, political risk and compensation positively relate to the presence and proportion of expatriates
Chang and Taylor (1999)	107 Korean subsidiaries owned by American or Japanese MNCs	Agency theory Organization control	Ownership positively related to staffing control, moderated by owner nationality
Delios and Bjorkman (2000)	380 and 417 Japanese subsidiaries in China and the US respectively	Control Knowledge transfer	More expatriates were used in technology- and marketing-intensive industries in China than in the US; A lack of MNC experience in China and more subsidiaries of the parent were found to be associated with limited use of expatriates
Harzing (2001)	2689 subsidiaries of over 200 MNCs from 11 home countries located in 48 countries; survey data on 239 subsidiaries of 104 MNCs	Filling positions Management and organization development	Large MNCs from a country with high uncertainty avoidance and large CD use more expatriates; More expatriates are used in majority-owned, large, young, and under-performing subsidiaries; Political risk, education, and living cost in the host country negatively affect expatriate assignment
Gong (2003)	695 subsidiaries of 8 Japanese MNCs; 400 subsidiary TMTs from 28 MNCs	Agency theory Resource-based view	CD increased the tendency to use expatriates as the CEO, TMT, and workforce size; These effects decrease over time; The use of expatriates improved subsidiary labor productivity, moderated by CD and years of operation
Belderbos and Heijltjes (2005)	844 Japanese manufacturing subsidiaries operating in 9 Asian countries	Control Learning perspective	Strategic dependence of a parent on its subsidiary increased the propensity to appoint expatriates; Localization and firm experience in the country increased the probability of using host country nationals; Inter-firm ties decreased the use of expatriates
Tan and Mahoney (2006)	284 Japanese manufacturing subsidiaries in the US	Resource-based view Agency and transaction costs theories	MNCs with little experience or with a high percentage of production abroad used more expatriates in industries with high product customization; MNCs relied more on host country nationals to adapt their marketing skills to local conditions

Table 1 (continued)

References	Sample	Theory	Findings
Gaur et al. (2007)	12,997 subsidiaries of 2952 Japanese firms in 48 countries	Institutional perspective	Firms rely more on expatriates in institutionally-distant environments; The positive impact of expatriates on subsidiary performance was moderated by institutional distance
Brock et al. (2008)	236 subsidiaries from 22 home and 9 host countries	Control function Agency and transaction cost theories	Higher levels of power distance, assertiveness, and institutional collectivism in the home country lead to more use of expatriates; Different dimensions of CD had asymmetric impact on the use of expatriates
Widmier et al. (2008)	366 Japanese subsidiaries in 40 countries	Control Knowledge transfer	Greater capital investment, parent firms' prior FDI experience and host country experience, cultural distance, host country market risk and economic development are all related to the use of expatriates
Paik and Ando (2011)	808 subsidiaries of Japanese firms	Control function Contingency	The strategic role of foreign affiliates affects the expatriate staffing decision. Firms' international operating experience moderates the impact of the strategic role of foreign affiliates on the expatriate staffing decision
Peng (2012)	Subsidiaries of Japanese MNCs	Control function	Expatriate staffing level is a function of FDI legitimacy and subsidiary size
Peng and Beamish (2014)	11,754 subsidiaries of Japanese MNCs	Control function	Expatriate staffing level has a U-shaped relationship with subsidiary size
Sapouna et al. (2016)	66 foreign subsidiaries	Knowledge transfer Resource recombination	The role of the R&D lab is related to the international assignment of R&D personnel
Harzing et al. (2016)	800 subsidiaries of MNCs in 13 countries	Knowledge transfer Knowledge-based view	The expatriate presence is associated with knowledge transfer from and to headquarters across different functional areas
Lakshman and Lakshman (2017)	Interview with MNCs	Control Knowledge transfer Socialization	The expatriate roles are differentiated over time, and role differentiation is related to the pressure for local responsiveness
Shin et al. (2017)	8538 subsidiaries of Japanese MNCs in 28 countries	Control function Transaction cost theories	Cultural distance has a U-shaped relationship with an MNC's expatriate deployment. Cultural tightness-looseness moderates such a U-shaped relationship

expatriates as the managing directors of their overseas affiliates in nine Asian countries and found that inter-firm ties within vertical business groups (keiretsu) played an important role in encouraging Japanese firms to learn from other firms' expatriation practices.

Decision makers may thus use their peers' expatriation decisions as a cue to inform their own decisions. First, uncertainty about the appropriateness of sending expatriates may decrease when decision makers observe that their peers are doing the same thing. Besides, the perception of an expatriate assignment as desirable is likely to be influenced by others' behaviors, even though the value of assigning expatriate managers seems unlikely to increase simply because other firms have assigned them previously (Gimeno et al. 2005; Greve 1998, 2011). Therefore, if there is a greater number of firms using expatriate staffing to render such a practice legitimate/appropriate in a host location, then the probability that later entrants assign expatriates will increase.

The probability of expatriate assignment might be expected to decrease, however, as the number of expatriates in the community continues increasing, because the clustering of expatriate-managed foreign subsidiaries in one location generates knowledge spillover (Lamin and Livanis 2013; Shaver and Flyer 2000). Knowledge spillover could happen when expatriates and host country nationals interact in situations such as participation in the training programs, in local research consortia and conferences, or in alliance activities (Singh 2007). Knowledge spills over from expatriates to local nationals, thus creating a recruitment pool for MNCs and reducing their need to hire expatriates.

Following the lead of Haans et al. (2016), we contend that a combination of mimicry and knowledge spillover may create an inverted U-shaped relationship between the number of expatriates sent by prior firms and an MNC's propensity to assign expatriates. In sum, the uncertainty that MNCs face when assigning expatriates leads them to initially imitate other similar firms at that location. However, as knowledge generated from the expatriate community spills over to local nationals, subsidiaries launched later are able to recruit qualified host country nationals rather than sending expatriates. Therefore,

Hypothesis 1: The probability of assigning expatriates will have an inverted U-shaped relationship with the number of expatriates already sent by foreign firms in the same location.

The influence of an expatriate community on MNC staffing practices is likely to be moderated by firm- and country-level factors. Prior research has shown that firms differ in their perceived uncertainty about a practice and thus in their motivation to imitate others (Gaba and Dokko 2016; Greve 1998, 2011; Henisz and Delios 2001). In expatriation studies, ownership and expatriate staffing are the two control mechanisms commonly used by MNCs (Peng and Beamish 2014). The more complete the ownership control of a foreign subsidiary, the less likely that an MNC would refer to the external environment for guidance about expatriation. Therefore, subsidiary ownership can moderate and/or limit the impact of any expatriate community. Country-level differences may moderate the impact of the community influence as well. Cultural distance—the extent to which home and host country cultures differ—is

used in this study to capture firms' perceived uncertainty about the effectiveness of using expatriates. The study thus sets out to verify whether or not cultural distance strengthens the expatriate community's influence on the adoption of expatriate assignment practices by new entrants.

3.3 The Moderating Role of Subsidiary Ownership

Prior work has shown a direct, positive relationship between subsidiary ownership and reliance on expatriation (Chang and Taylor 1999; Delios and Bjorkman 2000; Harzing 2001; Peng and Beamish 2014). This is consistent with the need of using expatriates to control foreign subsidiaries (Delios and Bjorkman 2000; Harzing 2001). When the parent firm has a greater equity share, it will be more committed to the subsidiary. That may make it worthwhile to assume the extra cost and risk of using expatriates to ensure better control (Belderbos and Heijltjes 2005).

In addition to this direct effect, subsidiary ownership is also likely to moderate the effect of external community influences on the decision to use expatriates. Specifically, the greater need for control attendant on a larger ownership share should weaken the effect of an expatriate community, including the effects of mimicry and knowledge spillover. An MNC may then opt to use expatriates regardless of whether or not prior investors have done so. The increased importance of control associated with high equity ownership decreases the uncertainty facing an MNC to use expatriates (Peng and Beamish 2014) and thus reduces the need to rely on information cues from the local environment. For these reasons, the effect of mimicry might be expected to be weaker among MNCs holding greater ownership share in a subsidiary.

Similarly, the impact of knowledge spillover on expatriate staffing is likely to weaken with increased ownership share. While local nationals will benefit from knowledge spillover from a community of expatriate managers, expatriates are still needed for control, as they are assumed to identify more with the values and goals of the parent firm (Gong 2003). So the influence of any knowledge spillover on expatriate staffing decisions should decrease as ownership share increases.

Hypothesis 2: Subsidiary ownership moderates the inverted U-shaped relationship between the number of expatriates in the same location and expatriate assignment such that subsidiary ownership attenuates the inverted U-shaped relationship between the number of prior expatriates in the same location and the probability of further expatriate assignment.

3.4 The Moderating Role of Cultural Distance

Country-level factors can also influence an MNC's expatriation practices. Specifically, the cultural distance between the MNC's home country and the host country has been shown to influence expatriate staffing decisions due to potential agency problems and transaction costs (Brock et al. 2008; Gong 2003; Shin et al. 2017). Differences in national cultures may result in different practices and also different employee expectations. Unfamiliarity makes it difficult to predict the behavior of culturally-distant agents.

Cultural factors thus influence, for example, the choice of entry mode in foreign markets (Brouthers 2013). Because of the potential for a divergence of interests, the headquarters-subsidiary relationship can be considered a type of principal-agent relationship in which the firm's headquarters delegates work and responsibilities to its foreign subsidiaries (Hoenen and Kostova 2015). Information asymmetry between the headquarters and the subsidiary increases as the cultural distance increases, because the subsidiary has greater knowledge of its environment, the choices available and performance potential (Gong 2003). This promotes the use of expatriates as they tend to share the parent's values and goals and thus ensure a high degree of compliance with the parent's intentions (Welch et al. 1994). Harzing (2001) has studied this relationship and found that the likelihood of a subsidiary having a parent-country national as its managing director is higher when the MNC's home country and the host country are more culturally distant.

Cultural distance might also have a moderating effect on the expatriate community's influence on an MNC's expatriation practices. Cultural distance increases the adjustment difficulties for expatriates (Widmier et al. 2008). Such adjustment difficulties complicate sending expatriates by increasing the risk of failure. Larger cultural differences can thus make an MNC more likely to imitate what others are doing in the same host country. The effect of mimicry on expatriation practices is more salient when cultural distance is larger.

The impact of knowledge spillover from an expatriate community on expatriation practices is also likely to be strengthened when cultural distance is large. When a subsidiary is being established in a host environment where there are already qualified local nationals, an MNC from a culturally distant country may be more likely than an MNC from a country less culturally-distant to hire qualified locals. Hiring locals could help a firm overcome the liability of foreignness and gain access to local knowledge networks (Muellner et al. 2017; Singh 2007). Compared to expatriates, local nationals have better knowledge of the local market and institutions, local business practices, and local cultural preferences (Muellner et al. 2017). These benefits should be more salient for MNCs from culturally-distant countries. So once knowledge spillover enables qualified local nationals to become available, new entrants from culturally more distant countries should be more likely to hire local nationals than those from countries less culturally distant.

Hypothesis 3: Cultural distance between the home and host country moderates the inverted U-shaped relationship between the number of expatriates in the same location and expatriate assignment such that cultural distance amplifies the inverted U-shaped relationship between the number of prior expatriates in the same location and the probability of further expatriate assignment.

4 Methods

4.1 Sample

These hypotheses were tested using data covering foreign-invested manufacturing ventures established in China over the period 1979–1995. Several factors make

China an excellent setting for such a study. First, the data start from 1979 when legal restrictions on foreign investment were relaxed and foreign companies were for the first time allowed to enter China (Li et al. 2007), so inter-organizational influences on personnel assignments can be examined from the beginning of the process. Between 1979 and 1995, the majority of multinational firms entering China had no country-specific experience. And most realized that their international experience elsewhere was not very helpful in China due to the unique institutional environment there. Other firms' actions thus provided an important information source for multinational firms to understand the appropriateness of expatriate assignment in China. Second, China's institutional context during that period was widely understood to be complex and uncertain (Child 1994). In an uncertain environment, social considerations are likely to be of critical importance (Kostova and Zaheer 1999; Scott 2002). This is particularly true for staffing decisions in a foreign market, because uncertainty created by a firm's lack of information about unfamiliar locations can be reduced by observing other firms' choices.

The raw data on direct investment in China by foreign firms were obtained from the research institute of the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) in Beijing. This database contains brief profiles of each foreign-invested firm that operated in China during 1979–1995, providing data on location and industry, the equity ownership of the foreign parent, the total investment, the number of employees, and the number of expatriate managers. The study covered foreign-invested ventures in manufacturing but excluded those in service sectors, where the government retained more restrictions on foreign ownership (Child 1994).

Subsidiaries from 74 countries for which national culture data were available from Hofstede (1980) were selected for study. The final sample included 95,156 foreign investments in 28 manufacturing industries (defined at the two-digit SIC level), accounting for 94% of China's total FDI in manufacturing during the study period. On average, those foreign-invested subsidiaries hired 106 employees, and their parent firms owned roughly 60% of their share. From 1981 the number of foreign-invested subsidiaries increased steadily, reaching a high in 1993. The garments industry had the largest number of foreign-invested subsidiaries, followed by electronic and telecommunications equipment and textiles.

4.2 Variables and Measures

4.2.1 Dependent Variable

Expatriate staffing was indicated by a dummy variable coded as '1' if an investor sent one or more expatriates when its Chinese subsidiary was set up and as '0' otherwise. In a supplementary analysis, quantifying expatriate staffing as the logarithm of '1' plus the number of expatriates in the local Chinese subsidiary was also tested.

4.2.2 Independent and Moderating Variables

To investigate mimicry and knowledge spillover from any pre-existing expatriate community, the *number of expatriates in the same location* was calculated as the cumulative number of expatriates sent out by prior foreign investors within the same province.¹ So, for example, if a foreign subsidiary was established in 1985, the number of expatriates assigned by previous foreign investors within the same province between 1979 and 1984 (1 year prior to the establishment of the focal subsidiary) was the variable's value. Both the linear and the squared terms of this variable were included in the models to test for the hypothesized effect of the community influence.

Two moderators were included in the regression models. *Subsidiary ownership* was a parent firm's ownership percentage in the subsidiary. *Cultural distance* was quantified using Kogut and Singh's composite index (1988) based on Hofstede's (1980) four cultural dimensions: power distance, uncertainty avoidance, individuality, and masculinity. Hofstede (1980) has shown that national cultures differ substantially in terms of those dimensions. In this study the index was based on China's deviation from a foreign investor's home country along each dimension. The deviations were corrected for differences in the variances of each dimension and then arithmetically averaged. Formally, the cultural distance CD_j was calculated as:

$$CD_j = \sum_{i=1}^4 [(I_{ij} - I_{iC})^2 / V_i] / 4$$

where I_{ij} is the index value for cultural dimension i of country j , and V_i is the variance of the index of the i th dimension, C indicates China, so CD_j is the cultural difference of the j th country from China.

4.2.3 Control Variables

Several control variables were included in the models. Investment location, industry, entry year, and subsidiary size were included in the models as control variables. Both political and economic factors associated with a province were controlled for. The political factors were represented by a dummy variable, *policy incentive*, to indicate government incentives for attracting FDI. Foreign investors in special economic zones and open coastal cities received special concessions such as tax incentives and lower entry and exit barriers throughout the period, so the *policy incentive* dummy variable was coded as '1' if, in year $t-1$, the province hosting the investment included one or more special economic zones and/or open coastal cities. The economic factors controlled for were provincial *trade growth* and *GDP per capita* for each year.

¹ In the robustness checks, we also captured the community influence by using the cumulative number of expatriates sent out by prior foreign investors during the recent 2, 3 and 4 years within each province. The results are largely consistent with our predictions.

Industry dummies were included because, according to Harzing (2000), industry can be used as a proxy for two firm-level variables in the study of expatriate staffing: R&D intensity and corporate strategy. FDIs made to exploit a competitive advantage in R&D might be expected to send more expatriates to facilitate knowledge transfer from headquarters to the subsidiaries (Berry 2017). Also, MNCs following a global strategy are likely to be in industries where global efficiency is more important, while MNCs following a multi-domestic strategy are likely to be in industries where local responsiveness is more important (Harzing 2000). And entry timing effects were controlled for by including *entry year dummies*. Also, *subsidiary size*, measured as the number of the subsidiary's employees, was included in the models. Given the skewed distribution of the number of subsidiary employees, the logarithm of the number was used in the modeling.

4.3 Analysis

The data set consisted of pooled time-series, cross-sectional data about foreign subsidiaries set up in China. We analyzed the expatriate staffing decision for each subsidiary. Binary logistic regression models were formulated to test the significance of the relationships proposed in the hypotheses. There was a one-year lag between the independent and the dependent variables. Also, for the moderating effect analyses, the subsidiary ownership, cultural distance and the number of expatriates in the same location variables were mean-centered before creating interaction terms (Cohen and Cohen 1983) to reduce any multi-collinearity concerns and facilitate the interpretation of the findings.

4.4 Results

Table 2 provides descriptive statistics and correlations describing the study's variables. On average, 39% of the investors had sent expatriates to their foreign subsidiaries in China. The average subsidiary ownership by the parent firms was about 60%.

The logistic regression results are reported in Table 3. Model 1 included the control variables and tested for any main effects of subsidiary ownership and cultural distance. Model 2 added the number of expatriates in the same location and its squared term. Model 3 included terms representing the interactions between subsidiary ownership and the number of expatriates in a location and its square. Model 4 included terms representing the interactions between cultural distance and the number of expatriates in a location and its square. Model 5 was the full model including all the interactions.

The coefficient on the *number of expatriates in the same location* term (Model 5) was positive and significant, indicating that the probability of sending expatriates increases first as others in the location have done so before. And the square of the *number of expatriates in the same location* term in Model 5 was significant and negative, indicating that as the number of expatriates in the community further increases, the probability of assigning expatriates declines. Overall, the number of expatriates in the same location showed an inverted U-shaped relationship with the

Table 2 Descriptive statistics and correlations

	Mean	SD	1	2	3	4	5	6	7	8
1. Expatriate staffing	0.39	0.49								
2. Number of expatriates in the same location/1000	5.80	7.47	0.03*							
3. (Number of expatriates in the same location/1000) ²	89.6	203	0.03*	0.94*						
4. Ownership percentage	59.9	28.5	0.17*	0.29*	0.23*					
5. Cultural distance	0.92	1.20	0.04*	-0.18*	-0.16*	-0.06*				
6. Subsidiary size	2.72	3.31	0.32*	-0.16*	-0.12*	-0.13*	0.05*			
7. Trade growth	0.30	0.37	0.01*	0.00	-0.03*	-0.00	-0.03*	-0.00		
8. GDP per capita	0.33	0.21	0.07*	0.26*	0.21*	0.15*	0.17*	-0.05*	-0.03*	
9. Policy incentive	0.82	0.38	-0.05*	0.31*	0.20*	0.13*	-0.08*	-0.09*	-0.01*	0.11*

N=95,156

*Indicates a correlation significant at the $p \leq 0.05$ level of confidence

Table 3 Coefficients of binary logistic regressions predicting expatriate staffing

	Model 1	Model 2	Model 3	Model 4	Model 5
Trade growth	0.018 (0.021)	0.008 (0.021)	0.011 (0.021)	0.007 (0.021)	0.010 (0.021)
GDP per capita	0.505*** (0.043)	0.490*** (0.043)	0.470*** (0.044)	0.493*** (0.043)	0.472*** (0.044)
Policy incentive	-0.312*** (0.019)	-0.397*** (0.021)	-0.416*** (0.022)	-0.400*** (0.021)	-0.418*** (0.022)
Subsidiary size	1.155*** (0.009)	1.161*** (0.009)	1.166*** (0.009)	1.161*** (0.009)	1.165*** (0.009)
Ownership	0.517*** (0.008)	0.499*** (0.008)	0.497*** (0.008)	0.500*** (0.008)	0.498*** (0.008)
Cultural distance (CD)	0.042*** (0.007)	0.059*** (0.008)	0.057*** (0.008)	0.069*** (0.008)	0.064*** (0.008)
Number of expatriates in the same location		0.177*** (0.025)	0.187*** (0.026)	0.182*** (0.026)	0.192*** (0.026)
(Number of expatriates in the same location) ²		-0.096*** (0.023)	-0.068** (0.025)	-0.091*** (0.024)	-0.065* (0.026)
Ownership × number of expatriates in the same location			-0.209*** (0.022)		-0.206*** (0.022)
Ownership × (number of expatriates in the same location) ²			0.114*** (0.022)		0.112*** (0.022)
CD × number of expatriates in the same location				0.055* (0.024)	0.047* (0.024)
CD × (number of expatriates in the same location) ²				-0.025 (0.026)	-0.023 (0.026)
Industry, year fixed-effect	Yes	Yes	Yes	Yes	Yes
Constant	-1.644* (0.832)	-1.438 (0.833)	-1.405 (0.835)	-1.442 (0.833)	-1.408 (0.835)
Log-likelihood	-54,303.79	-54,257.82	-54,166.08	-54,251.82	-54,161.86
Pseudo R-square	0.1406	0.1414	0.1428	0.1415	0.1429

N = 95,156; robust standard errors are reported in parentheses

***Indicates a coefficient significant at the $p \leq 0.001$ (** $p \leq 0.01$, * $p \leq 0.05$) level of confidence

probability of expatriation, with a positive first-order and a negative second-order effect, supporting hypothesis 1. The inflection point was about one standard deviation above the mean, which was within the data range. This indicates that imitating similar others may be more important when the number of expatriates is low; but as the number of expatriates grows, the tendency to send expatriates declines. The probability of expatriate assignment in a host location where the number of expatriates is one standard deviation above the host location's sample mean is roughly 8% higher than it is for expatriate assignment in a host location where the number of expatriates is one standard deviation below the mean.

Hypothesis 2 predicts that the impact of community influence (mimicry and knowledge spillover) would be weaker for MNCs with a higher level of equity ownership in their foreign subsidiaries. In Model 5, the coefficient on the term representing the interaction between ownership percentage and the number of expatriates already sent out in the same location was significant and negative, indicating that majority-owned subsidiaries were less likely to imitate others in the same location ($\beta = -0.21$, $p < 0.001$). The interaction with the squared term was significant and positive ($\beta = 0.11$, $p < 0.001$). These results support hypothesis 2.

Hypothesis 3 predicts that the relationship between the number of expatriates in a location and the probability of further expatriate assignment will be strengthened for subsidiaries whose parent firms are from culturally-distant countries. In Model 5 the linear interaction term was positive and significant ($\beta = 0.05$, $p < 0.05$), but the interaction with the squared term was not significant. These results fail to provide support for hypothesis 3.

To better understand the interaction effect of subsidiary ownership, we followed Hoetker's (2007) suggestions by presenting results graphically. Figure 2 plotted the moderating effect of subsidiary ownership on the relationship between the number of expatriates in a location and further expatriate assignment. To plot the figure, the values of all the independent variables (except for the number of expatriates in the same location and subsidiary ownership) were set at their means. The figure for the interaction effect of subsidiary ownership was drawn based on the results from Model 5 of Table 3. In Fig. 2, the inverted U-shaped relationship is more pronounced when the level of subsidiary ownership is low rather than high. The differences between the predicted probabilities of expatriate assignment associated with a change in the value of the moderators over the range of the independent variable were also plotted, as suggested by Zelner (2009).² Consistent with Fig. 2, the differences between the predicted probabilities of expatriate assignment associated with a change in subsidiary ownership share from low to high first decrease and then increase over the range of the independent variable.

The control variables also showed the expected effects. MNCs tended to use expatriates in large subsidiaries and those in which they hold a greater ownership share. The main effect of cultural distance was positive and significant, suggesting that MNCs from culturally-distant countries were more likely to use expatriates. Several location attributes were also significant. Locations with higher GDP per

² The plot is available on request.

Fig. 2 The moderating effect of subsidiary ownership on the relationship between the number of expatriates in the same location and expatriate assignment

capita attracted more expatriation, but those with policy incentives attracted less. Why MNCs were less likely to send expatriates to locations where the government offered investment incentives remains to be explored.

4.5 Supplementary Analyses

To check the robustness of these core results, several additional analyses with alternative measures of the theoretical variables were conducted. First, the average number of expatriates per foreign-invested firm in a location was tested as an alternative to explore the influence of the expatriate community. An inverted U-shaped relationship was found between the average number of expatriates per firm in a location and the probability of expatriate assignment. In addition, ownership equity share weakened the impact of an expatriate community on expatriate assignment.

In a second supplementary analysis, ordinary least squares regressions were formulated using the logarithm of the number of expatriates in a subsidiary as the dependent variable. The results are presented in Table 4. The hypothesized inverted U-shaped relationship between the number of expatriates in a host location and the propensity for further expatriate assignment was still supported. Overall, these results were generally consistent with the logistic regression results reported in Table 3.

Table 4 Coefficients of ordinary least squares regression models predicting expatriate staffing (DV: expatriate staffing as a continuous measure)

	Model 1	Model 2	Model 3	Model 4	Model 5
Ownership	0.142*** (0.002)	0.133*** (0.002)	0.134*** (0.002)	0.133*** (0.002)	0.134*** (0.002)
Cultural distance (CD)	0.003 (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.014*** (0.002)	0.013*** (0.002)
Number of expatriates in the same location		0.086*** (0.006)	0.086*** (0.007)	0.089*** (0.007)	0.088*** (0.007)
(Number of expatriates in the same location) ²		-0.051*** (0.006)	-0.042*** (0.006)	-0.050*** (0.006)	-0.041*** (0.007)
Ownership× number of expatriates in the same location			-0.045*** (0.006)		-0.045*** (0.006)
Ownership× (number of expatriates in the same location) ²			0.023*** (0.006)		0.023*** (0.006)
CD× number of expatriates in the same location				0.018** (0.006)	0.016** (0.006)
CD× (number of expatriates in the same location) ²				-0.009 (0.007)	-0.009 (0.007)
Control variables	Yes	Yes	Yes	Yes	Yes
Industry, year fixed-effect	Yes	Yes	Yes	Yes	Yes
Constant	0.318 (0.207)	0.415* (0.206)	0.425* (0.206)	0.414* (0.206)	0.424* (0.206)
R ²	0.151	0.154	0.155	0.154	0.155

N=95,156; standard errors are reported in parentheses

***Indicates a coefficient significant at the $p \leq 0.001$ (** $p \leq 0.01$, * $p \leq 0.05$) level of confidence

Table 5 Coefficients of binary logistic regressions predicting expatriation (US subsample)

	(1)	(2)
Trade growth	−0.068 (0.051)	−0.062 (0.050)
GDP per capita	0.630*** (0.135)	0.642*** (0.135)
Policy incentive	−0.544*** (0.077)	−0.557*** (0.077)
Subsidiary size	0.352*** (0.019)	0.352*** (0.019)
Ownership	0.018*** (0.001)	0.018*** (0.001)
Parent firm's prior experience in China	−0.028 (0.025)	−0.028 (0.025)
Number of expatriates used by prior US investors	0.140* (0.071)	0.169* (0.073)
(Number of expatriates used by prior US investors) ²	−0.090 [†] (0.050)	−0.115* (0.054)
Ownership × number of expatriates used by prior US investors		−0.143** (0.047)
Ownership × (number of expatriates used by prior US investors) ²		0.117** (0.040)
Year fixed-effect	Yes	Yes
Constant	−2.643*** (0.195)	−2.652*** (0.187)
Log-likelihood	−4493.38	−4490.6

N = 7478

Robust standard errors are reported parentheses

***Indicates a coefficient significant at the $p \leq 0.001$ (** $p \leq 0.01$, * $p \leq 0.05$, [†] $p \leq 0.1$) level of confidence

Omitted variables could bias the estimates, so this possibility was checked. One omitted variable might be a parent firm's prior experience in the host country.³ Due to the data limitations, we can only identify prior experience of the parent firm for a subset of our sample (i.e., for subsidiaries of US firms). Data from American Business in China (Chang 1995) were used to identify each US subsidiary's parent firm. That yielded 5963 US parent firms with 7478 subsidiaries in China. The variable *parent firm's prior experience in China* was then measured by the cumulative number of subsidiaries a parent firm had invested in prior to setting up a new focal subsidiary. Including this variable as an additional control did not significantly alter the models' estimates. There was still significant evidence of inverted U-shaped relationship between the number of expatriates in the community and the propensity of expatriate assignment. Ownership weakened the curvilinear relationship. The results are presented in Table 5.

5 Discussion

5.1 Theoretical and Practical Implications

This study examines expatriate staffing in foreign subsidiaries from the perspectives of neo-institutional theory and knowledge spillover. It examines the impact of

³ We sincerely thank one anonymous reviewer's suggestion on this point.

mimicry and knowledge spillover on the assignment of expatriates by MNCs investing in an emerging economy. Data on 95,156 foreign investments in China suggest that: (1) the number of expatriates already working in the same location has a positive relationship with the probability of additional expatriates being assigned by new investors, however the probability of expatriate assignment decreases as the number of expatriates in the community continues to increase; (2) the inverted U-shaped relationship between the number of expatriates in a location and further expatriate assignment is weaker for majority-owned subsidiaries, since greater ownership increases the need for more internal control.

These results extend the study of the mimicry effect to a new context—expatriate staffing in foreign subsidiaries. Neo-institutional theory suggests that in uncertain situations, decision makers are motivated to look to other firms for cues that can be used to evaluate the desirability of certain behaviors and practices (DiMaggio and Powell 1983; Haunschild and Miner 1997). Thus, organizations with common traits tend to follow the actions taken by peers in their reference groups (Greve 2011). Consistent with this argument, this study has found that organizations tend to imitate the behaviors of others in the same geographical location when making expatriation decisions, suggesting the importance of social considerations.

Importantly, these results provide empirical evidence that further adoption of management practices such as expatriation practices cannot be taken for granted, as late entrants may instead simply rely on knowledge spillover from early movers, reducing the need for further adoption. Prior discussion has largely assumed that early adopters of a practice seek to gain economic efficiency while later adopters seek to gain social legitimacy (Kennedy and Fiss 2009; Tolbert and Zucker 1983). Even though economic efficiency and social legitimacy motivations could coexist (as has been emphasized by research by Kennedy and Fiss (2009)), the results of this study suggest the possibility of an economic penalty for further adoption. In the context of expatriate staffing, late entrants probably benefit from those who enter earlier because of knowledge spillover from the expatriate community to host country nationals. Firms entering later do not have to rely on expatriates if they have other options such as employing qualified local nationals. By demonstrating that late comers benefit from previous expatriation and that their need to follow suit consequently decreases, these results suggest that considering new theoretical perspectives (e.g. knowledge spillover) might help elucidate the diffusion of certain management practices.

This synthesis of neo-institutional theory and spillover arguments has provided new insights into expatriate assignment practices. This study conceptualizes a community of expatriates in a location and argues that knowledge spillover from that community to local nationals influences subsequent expatriate staffing decisions. As the number of expatriates in the community increases, the necessity of using expatriates in new subsidiaries decreases, probably because of the increased availability of local managers who have benefited from knowledge spillover from the existing expatriate community. The empirical results provide evidence for this argument. This study thus contributes to the literature on expatriate staffing by bringing the perspective of knowledge spillover into the expatriation literature (Ferris et al. 1999).

This study also examines the moderating effects of firm-level and country-level factors on expatriation practices. Larger ownership is shown to weaken the inverted U-shaped relationship between the number of expatriates in the community and further expatriation by new entrants. A higher level of subsidiary ownership indicates a greater need for internal control, which probably decreases an MNC's reliance on the external environment for relevant information when making staffing decisions. But cultural distance is not shown to moderate the influence of the expatriate community on subsequent expatriation. On one hand, firms are more likely to mimic other foreign investors as cultural distance increases because of the increased uncertainty of using expatriates. On the other hand, firms' need for agents they can trust increases as cultural distance increases, implying a declining tendency to rely on others' behaviors in making expatriation decisions.

This study may also contribute to our understanding of emerging economies. Previous research on subsidiary staffing policies has dealt with characteristics of emerging economies such as the lack of qualified local managers (Delios and Bjorkman 2000), but the staffing practices of MNCs operating in such environments have not yet been investigated systematically. There have been a limited number of studies with a sub-national focus. This is of particular relevance in emerging economies like China, where there is a high level of heterogeneity across locations (Chang and Park 2005). By examining local expatriate communities in an emerging economy, this study has contributed to the growing literature on firm strategies and practices in such economies (Wright et al. 2005).

The study's findings have practical implications as well. The question of whether to assign expatriate managers to a foreign subsidiary is of significant practical relevance. Learning which factors might facilitate or impede expatriate assignment would be very helpful. The model used here explains how firms' expatriation practices are influenced by other firms in the same community. The knowledge spillover from a community of expatriate managers provides a potential pool of skilled local personnel, decreasing the necessity of sending expatriates from the parent firm. This implies that firms might profitably choose different staffing policies when entering different locations in a host country because of the heterogeneity among the locations. Specially, firms considering deploying expatriates in their overseas subsidiaries need to balance the benefits and costs of expatriate assignment. Imitating others' actions may save information search costs, but firms should be cautious. It could be costly to overlook the pool of local talents available in the host country. The size of the expatriate community may offer useful cues in this regard. If it is small, it may make sense to mimic others' actions, but if it is large and long-established, hiring locally may be a more effective approach.

5.2 Limitations and Future Research

Several limitations of the study suggest areas for future research. Expatriation decisions of course involve other considerations which are not considered in this study. Whether a firm is pursuing a global or a multi-domestic strategy clearly has implications for expatriate assignment practices (Bartlett and Ghoshal 1998; Connelly et al.

2007; Paik and Ando 2011; Sapouna et al. 2016). Such an issue is beyond the scope of this study, but it should be examined in future research.

Then, a firm might be wise to use expatriates differently in different functional areas (Harzing et al. 2016). For instance, they may employ expatriates in technology, but hire locals in marketing and distribution where local market knowledge is particularly important. Examining the relationship between the nature of a work assignment and expatriate staffing practices would be another promising area for future research.

Then, different forms of inter-organizational imitation (Haunschild and Miner 1997) can be relevant to expatriate staffing decisions. Beyond the frequency-based imitation considered here, outcome-based and trait-based imitation deserve exploration in future studies.

Note too that this study does not consider the impact of a firm's overseas experience on its expatriation decisions. That is because of data limitations. But experience has long since been shown to have a significant impact on foreign entry and staffing policies (Henisz and Delios 2001). Future research might fruitfully examine the different expatriation practices of firms making first entries and sequential entries.

It should be acknowledged that this study may have had a nested data structure in the sense that the subsidiary-level data can be considered nested within the data on the parent firms. The hierarchical linear modeling technique analyzing a subsample consisted of subsidiaries of US firms helped to ensure that the nested data structure did not bias the findings. Nevertheless, future research might investigate this issue more directly.

Moreover, knowledge spillover from expatriates to local nationals is assumed but never directly demonstrated. Particularly, work by Lamin and Livanis (2013) has generated evidence that firms from emerging economies benefit from knowledge spillover through co-locating with foreign firms. Besides, we collected data on local wage and showed that local wage growth is a function of the number of expatriates in the same location. So there is good reason to believe that knowledge spillover between expatriates and locals in the same location takes place to at least some extent, but research is needed to probe this issue with more detailed data. For instance, future research could investigate into the distance between the location of the expatriate community and that of the local community and test whether knowledge spillover diminishes along with an increasing distance between the locations of these two communities. Before we have sufficient evidence to prove the existence of knowledge spillover from expatriates to locals, we might need to be cautious about the mechanism that leads to the decreasing usage of expatriates when there is a large expatriate community in the foreign location.

Finally, it must be acknowledged that representing expatriate assignment as a dummy variable provides a simplified picture of MNCs' expatriation assignment decisions. But our key focus in this paper is whether the expatriate community affects the use of expatriates, which is a first step in the decision-making. The next step is to decide how many expatriates to send, which we use as supplementary analysis. Future studies may explore different theoretical perspectives and adopt a more fine-grained measure to expand our understanding of MNCs' expatriation decisions.

Funding The research is supported in part by the Research Grants Council of Hong Kong (HKUST#16505817).

References

- Alcacer, J., & Chung, W. (2007). Location strategies and knowledge spillovers. *Management Science*, 53(5), 760–776.
- Alcacer, J., & Chung, W. (2014). Location strategies for agglomeration economies. *Strategic Management Journal*, 35(12), 1749–1761.
- Ang, S. H., Benischke, M. H., & Doh, J. P. (2015). The interactions of institutions on foreign market entry mode. *Strategic Management Journal*, 36(10), 1536–1553.
- Astley, W. G. (1985). The two ecologies: Population and community perspectives on organizational evolution. *Administrative Science Quarterly*, 30(2), 224–241.
- Bartlett, C. A., & Ghoshal, S. (1998). *Managing across borders: The transnational solution* (2nd ed.). Boston: Harvard Business School Press.
- Belderbos, R. A., & Heijltjes, M. G. (2005). The determinants of expatriate staffing by Japanese multinationals in Asia: Control, learning and vertical business groups. *Journal of International Business Studies*, 36(3), 341–354.
- Belderbos, R., Olffen, W. V., & Zou, J. (2011). Generic and specific social learning mechanisms in foreign entry location choice. *Strategic Management Journal*, 32(12), 1309–1330.
- Belderbos, R., Tong, T. W., & Wu, S. (2014). Multinationality and downside risk: The roles of option portfolio and organization. *Strategic Management Journal*, 35(1), 88–106.
- Berry, H. (2017). Managing valuable knowledge in weak IP protection countries. *Journal of International Business Studies*, 48(7), 787–807.
- Black, J. S., & Gregersen, H. B. (1999). The right way to manage expats. *Harvard Business Review*, 77(2), 52–59.
- Boyacigiller, N. (1990). The role of expatriates in the management of interdependence, complexity and risk in multinational corporations. *Journal of International Business Studies*, 21(3), 357–381.
- Brock, D. M., Shenkar, O., Shoham, A., & Siscovick, I. C. (2008). National culture and expatriate deployment. *Journal of International Business Studies*, 39(8), 1293–1309.
- Brothers, K. D. (2013). A retrospective on: Institutional, cultural and transaction cost influences on entry mode choice and performance. *Journal of International Business Studies*, 44(1), 14–22.
- Cantwell, J., Dunning, J. H., & Lundan, S. M. (2010). An evolutionary approach to understanding international business activity: The co-evolution of MNEs and the institutional environment. *Journal of International Business Studies*, 41(4), 567–586.
- Chang, D. K. (1995). *American business in China*. Torrance: Caravel Inc.
- Chang, Y. Y., Gong, Y., & Peng, M. W. (2012). Expatriate knowledge transfer, subsidiary absorptive capacity, and subsidiary performance. *Academy of Management Journal*, 55(4), 927–948.
- Chang, S. J., & Park, S. (2005). Types of firms generating network externalities and MNCs' co-location decisions. *Strategic Management Journal*, 26(7), 595–615.
- Chang, E., & Taylor, M. S. (1999). Control in multinational corporations (MNCs): The case of Korean manufacturing subsidiaries. *Journal of Management*, 25(4), 541–565.
- Child, J. (1994). *Management in China during the age of reform*. Cambridge: Cambridge University Press.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale: Lawrence Erlbaum.
- Connelly, B., Hitt, M. A., DeNisi, A. S., & Duane Ireland, R. (2007). Expatriates and corporate-level international strategy: Governing with the knowledge contract. *Management Decision*, 45(3), 564–581.
- Delios, A., & Bjorkman, I. (2000). Expatriate staffing in foreign subsidiaries of Japanese multinational corporations in the PRC and the United States. *International Journal of Human Resource Management*, 11(2), 278–293.
- DiMaggio, P., & Powell, W. W. (1983). The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American Sociological Review*, 48(2), 147–160.

- Edström, A., & Galbraith, J. R. (1977). Transfer of managers as a coordination and control strategy in multinational organizations. *Administrative Science Quarterly*, 22(2), 248–263.
- Feinberg, S. E., & Gupta, A. K. (2004). Knowledge spillovers and the assignment of R&D responsibilities to foreign subsidiaries. *Strategic Management Journal*, 25(8–9), 823–845.
- Ferris, G. R., Hochwarter, W. A., Buckley, M. R., Harrell-Cook, G., & Frink, D. D. (1999). Human resources management: Some new directions. *Journal of Management*, 25(3), 385–415.
- Fortwengel, J. (2017). Practice transfer in organizations: The role of governance mode for internal and external fit. *Organization Science*, 28(4), 690–710.
- Gaba, V., & Dokko, G. (2016). Learning to let go: Social influence, learning, and the abandonment of corporate venture capital practices. *Strategic Management Journal*, 37(8), 1558–1577.
- Gaba, V., & Terlaak, A. (2013). Decomposing uncertainty and its effects on imitation in firm exit decisions. *Organization Science*, 24(6), 1847–1869.
- Gambardella, A., & Giarratana, M. S. (2010). Organizational attributes and the distribution of rewards in a region: Managerial firms vs. knowledge clusters. *Organization Science*, 21(2), 573–586.
- Gaur, A. S., Delios, A., & Singh, K. (2007). Institutional environments, staffing strategies, and subsidiary performance. *Journal of Management*, 33(4), 611–636.
- Gimeno, J., Hoskisson, R. E., Beal, B. D., & Wan, W. P. (2005). Explaining the clustering of international expansion moves: A critical test in the US telecommunications industry. *Academy of Management Journal*, 48(2), 297–319.
- Gong, Y. (2003). Subsidiary staffing in multinational enterprises: Agency, resources, and performance. *Academy of Management Journal*, 46(6), 728–739.
- Greve, H. R. (1998). Managerial cognition and the mimetic adoption of market positions: What you see is what you do. *Strategic Management Journal*, 19(10), 967–988.
- Greve, H. R. (2011). Fast and expensive: The diffusion of a disappointing innovation. *Strategic Management Journal*, 32(9), 949–968.
- Guillén, M. F. (2002). Structural inertia, imitation, and foreign expansion: South Korean firms and business groups in China, 1987–1995. *Academy of Management Journal*, 45(3), 509–525.
- Haans, R. F., Pieters, C., & He, Z. L. (2016). Thinking about U: Theorizing and testing U- and inverted U-shaped relationships in strategy research. *Strategic Management Journal*, 37(7), 1177–1195.
- Hannan, M. T., & Freeman, J. (1989). *Organizational ecology*. Cambridge: Harvard University Press.
- Harzing, A. W. (2000). An empirical analysis and extension of the Bartlett and Ghoshal typology of multinational companies. *Journal of International Business Studies*, 31(1), 101–120.
- Harzing, A. W. (2001). Who's in charge? An empirical study of executive staffing practices in foreign subsidiaries. *Human Resource Management*, 40(2), 139–158.
- Harzing, A. W., Pudelko, M., & Reiche, S. B. (2016). The bridging role of expatriates and inpatriates in knowledge transfer in multinational corporations. *Human Resource Management*, 55(4), 679–695.
- Haunschild, P. R., & Miner, A. S. (1997). Modes of interorganizational imitation: The effects of outcome salience and uncertainty. *Administrative Science Quarterly*, 42(3), 472–500.
- Haveman, H. A. (1993). Follow the leader: Mimetic isomorphism and entry into new markets. *Administrative Science Quarterly*, 38(4), 593–627.
- Henisz, W. J., & Delios, A. (2001). Uncertainty, imitation, and plant location: Japanese multinational corporations, 1990–1996. *Administrative Science Quarterly*, 46(3), 443–475.
- Hocking, J. B., Brown, M., & Harzing, A. W. (2004). A knowledge transfer perspective of strategic assignment purposes and their path-dependent outcomes. *International Journal of Human Resource Management*, 15(3), 565–586.
- Hoenen, A. K., & Kostova, T. (2015). Utilizing the broader agency perspective for studying headquarters-subsidiary relations in multinational companies. *Journal of International Business Studies*, 46(1), 104–113.
- Hoetker, G. (2007). The use of logit and probit models in strategic management research: Critical issues. *Strategic Management Journal*, 28(4), 331–343.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Newbury Park: Sage Publications.
- Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal*, 43(3), 249–267.
- Kalnins, A., & Chung, W. (2004). Resource-seeking agglomeration: A study of market entry in the lodging industry. *Strategic Management Journal*, 25(7), 689–699.
- Kawai, N., & Chung, C. (2019). Expatriate utilization, subsidiary knowledge creation and performance: The moderating role of subsidiary strategic context. *Journal of World Business*, 54(1), 24–36.

- Kennedy, M. T., & Fiss, P. C. (2009). Institutionalization, framing, and diffusion: The logic of TQM adoption and implementation decisions among US hospitals. *Academy of Management Journal*, 52(5), 897–918.
- Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19(3), 411–432.
- Kostova, T., Roth, K., & Dacin, M. T. (2008). Institutional theory in the study of multinational corporations: A critique and new directions. *Academy of Management Review*, 33(4), 994–1006.
- Kostova, T., & Zaheer, S. (1999). Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. *Academy of Management Review*, 24(1), 64–81.
- Kraimer, M., Bolino, M., & Mead, B. (2016). Themes in expatriate and repatriate research over four decades: What do we know and what do we still need to learn? *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 83–109.
- Lakshman, S., & Lakshman, C. (2017). The dynamic change in expatriate roles: Strategy type and stage of internationalization. *Management Decision*, 55(8), 1770–1784.
- Lamin, A., & Livanis, G. (2013). Agglomeration, catch-up and the liability of foreignness in emerging economies. *Journal of International Business Studies*, 44(6), 579–606.
- Li, J., Li, P., & Wang, B. (2019). The liability of opaqueness: State ownership and the likelihood of deal completion in international acquisitions by Chinese firms. *Strategic Management Journal*, 40(2), 303–327.
- Li, J., Qian, C., & Yao, F. K. (2015). Confidence in learning: Inter- and intra-organizational learning in foreign market entry decisions. *Strategic Management Journal*, 36(6), 918–929.
- Li, J., & Xie, Z. (2011). Global R&D strategies in an emerging economy: The development and protection of technological competencies. *European Management Review*, 8(3), 153–164.
- Li, J., Yang, J. Y., & Yue, D. R. (2007). Identity, community, and audience: How wholly owned foreign subsidiaries gain legitimacy in China. *Academy of Management Journal*, 50(1), 175–190.
- Lieberman, M. B., & Asaba, S. (2006). Why do firms imitate each other? *Academy of Management Review*, 31(2), 366–385.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363.
- Muellner, J., Klopff, P., & Nell, P. C. (2017). Trojan horses or local allies: Host-country national managers in developing market subsidiaries. *Journal of International Management*, 23(3), 306–325.
- Ozmel, U., Reuer, J. J., & Wu, C. W. (2017). Interorganizational imitation and acquisitions of high-tech ventures. *Strategic Management Journal*, 38(13), 2647–2665.
- Paik, Y., & Ando, N. (2011). MNCs' competitive strategies, experiences, and staffing policies for foreign affiliates. *International Journal of Human Resource Management*, 22(15), 3003–3019.
- Pe'er, A., Vertinsky, I., & Keil, T. (2016). Growth and survival: The moderating effects of local agglomeration and local market structure. *Strategic Management Journal*, 37(3), 541–564.
- Peng, G. Z. (2012). FDI legitimacy and MNC subsidiary control: From legitimation to competition. *Journal of International Management*, 18(2), 115–131.
- Peng, G. Z., & Beamish, P. W. (2014). MNC subsidiary size and expatriate control: Resource-dependence and learning perspectives. *Journal of World Business*, 49(1), 51–62.
- Plourde, Y., Parker, S. C., & Schaan, J. L. (2014). Expatriation and its effect on headquarters' attention in the multinational enterprise. *Strategic Management Journal*, 35(6), 938–947.
- Porter, M. E. (1998). Clusters and the new economies of competition. *Harvard Business Review*, 76(6), 77–90.
- Riaz, S., Rowe, W. G., & Beamish, P. W. (2014). Expatriate-deployment levels and subsidiary growth: A temporal analysis. *Journal of World Business*, 49(1), 1–11.
- Ruef, M. (2000). The emergence of organizational forms: A community ecology approach. *American Journal of Sociology*, 106(3), 658–714.
- Ryu, W., McCann, B., & Reuer, J. (2018). Geographic co-location of partners and rivals: Implications for the design of R&D alliances. *Academy of Management Journal*, 61(3), 945–965.
- Sapouna, P., Manolopoulos, D., & Dimitratos, P. (2016). How do MNC R&D laboratory roles affect employee international assignments? *Management International Review*, 56(5), 759–779.
- Scott, W. R. (2002). The changing world of Chinese enterprise: An institutional perspective. In A. S. Tsui & C. M. Lau (Eds.), *The management of enterprises in the People's Republic of China* (pp. 59–78). Boston: Kluwer.
- Shaver, J. M., & Flyer, F. (2000). Agglomeration economies, firm heterogeneity, and foreign direct investment in the United States. *Strategic Management Journal*, 21(12), 1175–1193.

- Shin, D., Hasse, V. C., & Schotter, A. P. (2017). Multinational enterprises within cultural space and place: Integrating cultural distance and tightness-looseness. *Academy of Management Journal*, 60(3), 904–921.
- Singh, J. (2007). Asymmetry of knowledge spillovers between MNCs and host country firms. *Journal of International Business Studies*, 38(5), 764–786.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571–610.
- Takeuchi, R. (2010). A critical review of expatriate adjustment research through a multiple stakeholder view: Progress, emerging trends, and prospects. *Journal of Management*, 36(4), 1040–1064.
- Tan, D., & Mahoney, J. T. (2003). Explaining the utilization of managerial expatriates from the perspectives of resource-based, agency, and transaction-costs theories. *Advances in International Management*, 15, 179–205.
- Tan, D., & Mahoney, J. T. (2006). Why a multinational firm chooses expatriates: Integrating resource-based, agency and transaction costs perspectives. *Journal of Management Studies*, 43(3), 457–484.
- Tolbert, P. S., & Zucker, L. G. (1983). Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880–1935. *Administrative Science Quarterly*, 28(1), 22–39.
- Welch, D., Fenwick, M., & Cieri, H. D. (1994). Staff transfers as a control strategy: An exploratory study of two Australian organizations. *International Journal of Human Resource Management*, 5(2), 473–489.
- Widmier, S., Brouters, L. E., & Beamish, P. W. (2008). Expatriate or local? Predicting Japanese, subsidiary expatriate staffing strategies. *International Journal of Human Resource Management*, 19(9), 1607–1621.
- Williamson, I. O., & Cable, D. M. (2003). Organizational hiring patterns, interfirm network ties, and interorganizational imitation. *Academy of Management Journal*, 46(3), 349–358.
- Wright, M., Filatotchev, I., Hoskisson, R. E., & Peng, M. W. (2005). Strategy research in emerging economies: Challenging the conventional wisdom. *Journal of Management Studies*, 42(1), 1–33.
- Xie, Z., & Li, J. (2015). Demand heterogeneity, learning diversity and innovation in an emerging economy. *Journal of International Management*, 21(4), 277–292.
- Xie, Z., & Li, J. (2017). Selective imitation of compatriot firms: Entry mode decisions of emerging market multinationals in cross-border acquisitions. *Asia Pacific Journal of Management*, 34(1), 47–68.
- Yang, J. Y., Li, J., & Delios, A. (2015). Will a second mouse get the cheese? Learning from early entrants' failures in a foreign market. *Organization Science*, 26(3), 908–922.
- Zelner, B. A. (2009). Using simulation to interpret results from logit, probit, and other nonlinear models. *Strategic Management Journal*, 30(12), 1335–1348.
- Zhu, J., Wanberg, C. R., Harrison, D. A., & Diehn, E. W. (2016). Ups and downs of the expatriate experience? Understanding work adjustment trajectories and career outcomes. *Journal of Applied Psychology*, 101(4), 549–568.