

## Forgotten or not? Home country embeddedness and returnee entrepreneurship

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## **Forgotten or Not?**

### **Home Country Embeddedness and Returnee Entrepreneurship**

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## **Forgotten or Not?**

### **Home Country Embeddedness and Returnee Entrepreneurship**

#### **Abstract**

Building on the social network and strategic entrepreneurship literature, we investigate the overall relationship between returnee entrepreneurs' networks in different periods and locations, domestic resource acquisitions and firm performance. While the labor mobility literature emphasizes the "gone but not forgotten" networks in the prior location of migrants, other studies argue that returnees suffer from a lack of local networks. Our findings show that returnee entrepreneurs are different in the extent of their home country embeddedness while they are overseas, which indicates different degrees of enduring networks in the home countries. The effect of home country embeddedness improves the performance of returnee entrepreneurship via domestic resource acquisition, and this effect could be substituted by pre-overseas local ties and the presence of local top management team (TMT) members. This study extends returnee research by shedding light on the importance of network maintenance in determining whether the home country's network endures or decays and by highlighting the interactions of ties in the different periods of pre-overseas, during overseas, and after return.

Keywords: Returnee entrepreneurship, home country embeddedness, gone but not forgotten, resource acquisition

## 1. Introduction

Over the past 10 years, we have witnessed a growing trend of people returning to their home countries after studying/working abroad. For example, in China, there were 523,700 students going abroad and 409,100 returning in 2015, with a reflux ratio of 78.1% compared to that of 29.5% in 2005. From 2012 to 2014, 991,200 overseas Chinese students came back to China, exceeding the total number of returning students in the past 30 years<sup>i</sup>. Among them, some of the returnees entered entrepreneurship. According to a report on China's entrepreneurship<sup>ii</sup>, 63,000 returnees had participated in entrepreneurship in the overseas student pioneer parks by 2014. It has been demonstrated that returnee entrepreneurs have advantages in transferring advanced knowledge from developed host countries to developing home countries, thus benefiting innovations, firm performance, and industry development (Dai & Liu, 2009; Lin, Lu, Liu, & Choi, 2014; Lin, Lu, Liu, & Zhang, 2016; Liu, Lu, Filatotchev, Buck, & Wright, 2010; Zweig, Chung, & Vanhonacker, 2006).

Returnee entrepreneurs are defined as natives who have studied and/or worked in foreign countries for at least two years and then returned to their home countries to start up new ventures (Filatotchev, Liu, Buck, & Wright, 2009). They represent a distinct form of entrepreneurs who are exposed to both home and host countries and have attracted increasing attention in entrepreneurship research (Qin & Estrin, 2015; Schotter, Mudambi, Doz, & Gaur, 2017; Wright, Liu, Buck, & Filatotchev, 2008).

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<sup>i</sup> National Bureau of Statistics of China, <http://data.stats.gov.cn>

<sup>ii</sup> Sourced from "Report of China's Mass Entrepreneurship and Innovation".

However, the existing literature has shown inconsistent results regarding the performance of returnee entrepreneurship. Some studies argue that returnees have been isolated from their home countries for years and may lack local networks and face readjustment difficulties when returning to their home countries (Gaw, 1995; Szkudlarek, 2010). This may harm their firm performance (Li, Zhang, Li, Zhou, & Zhang, 2012; Wahba & Zenou, 2012). In contrast, Dai and Liu (2009) found that returnee entrepreneurs perform better than local entrepreneurs in high-tech industries due to their technological and commercial knowledge, as well as their international entrepreneurial orientation. Empirical evidence also shows that returnees' social influence in their networks could span time and space (Qin & Estrin, 2015). Similarly, another stream of literature on international labor mobility emphasizes the knowledge flow from a mobile inventor's current location to his/her prior location through geographically distant ties (Bae, Wezel, & Koo, 2011; Oettl & Agrawal, 2008), assuming that migrating inventors' social networks in their prior locations endure even when they are geographically separated (Agrawal, Cockburn, & McHale, 2006; Crescenzi, Nathan, & Rodriguez-Pose, 2016).

Existing studies highlight two performance implications for returnee-founded firms. On the one hand, returnee entrepreneurs lack home country networks after a long time of geographical isolation from their home countries, and this may deteriorate firm performance because in most returnees' home countries—usually emerging economies—networks and social relationships affect legitimacy building

and resource acquisition, which are critical to opportunity exploitation (Ahlstrom, Bruton, & Yeh, 2008; Wright et al., 2008). On the other hand, the literature about labor mobility assumes that geographically remote ties persist and serve as the conduit of knowledge flows (Agrawal et al., 2006). This argument can be applied to returnee entrepreneurs' home country networks while overseas. Despite the increasing interest in returnee entrepreneurship, we still have little knowledge about how returnee entrepreneurs' home country networks evolve during the entrepreneurs' stay abroad and about the mechanisms through which home country networks affect returnee entrepreneurs' firm performance upon return. There is no consensus as to whether returnee entrepreneurs face network decay or enjoy enduring home country networks, given the geographic isolation and the conditions under which the effect of home country networks on firm performance varies.

In addition, returnee entrepreneurs are often treated as a unit of analysis typically compared with local counterparts (Dai & Liu, 2009; Filatotchev et al., 2009; Liu et al., 2010; Qin, Wright, & Gao, 2017). However, returnee entrepreneurs are heterogeneous in many aspects, such as the embeddedness of their home country networks while overseas, the accumulation of local ties in the home country before going abroad, and the new ties formed upon return. Although some studies have recognized returnees' heterogeneity in terms of their overseas networks, as well as their motivations and capacities of knowledge transfer, the existing studies tend to focus on different types of ties, such as alumni ties, co-ethnic ties and government ties without considering the

interactions of networks in different time periods (Pruthi, Basu, & Wright, 2018; Qin, 2015; Roberts & Beamish, 2017; Wadhwa, Jain, Saxenian, Gereffi, & Wang, 2011; Wang, 2015). In particular, the current literature does not explicitly distinguish and examine the interactions among the reanimation of pre-overseas dormant ties, maintenance of ties while away, and formation of new ties on return but simply assumes that pre-existing ties either persist or decay. Thus, we have a limited understanding of the impact of these variations among individual returnee entrepreneurs.

These are important omissions for two reasons. First, without knowing whether or not or under what conditions ties endure when returnee entrepreneurs leave their home market, we may be missing part of the explanation about the role of ties. Second, without knowing whether domestic ties are reactivated or new ties are formed when the entrepreneurs return, we may be misattributing the effect of existing ties. Lack of recognition of these more fine-grained temporal dimensions of returnees' ties may be a major reason why prior literature has not reached consistent theoretical arguments and empirical results. This study is motivated by the need to reconcile the inconsistent findings regarding the performance implications of returnee entrepreneurs' networks during the pre-overseas, overseas and post-return periods. More specifically, we aim to unpack the individual variation in home country embeddedness while overseas and uncover the role of tie maintenance and its interactions with the reanimation of pre-overseas dormant ties and the formation of

new ties upon return through strategic actions.

This study contributes to a deeper understanding of the performance differentials of returnee entrepreneurs. First, we capture the variation of returnee entrepreneurs' home country embeddedness while overseas. As such, this study goes beyond the notion of the "gone but not forgotten" network persistence in the labor mobility literature and the simple assumption of "lacking local ties after return" in the returnee literature. In particular, our research adds to the understanding that whether geographically distant ties endure and then benefit resource acquisition depends on the extent and nature of an individual's network embeddedness in the prior location (i.e., home country). Second, we extend the existing conceptual and empirical insights that mainly focus on ties in a single time period and location by reflecting two-way mobility in which people who left their home country also return, such as returnees. We theorize and show, by expanding the horizons of networks to different periods and examining their interactions, that the extent to which returnees reactivate pre-overseas dormant ties and form new ties influences their substitutive effects with home country embeddedness while overseas and hence influences their resource acquisition and subsequent performance. Thus, we provide a more complete temporal insight into the sustainability and interconnection of the networks of mobile individuals. Third, resource acquisition in the home country after return is often considered important and challenging in returnee entrepreneurship (Armanios, Eesley, Li, & Eisenhardt, 2016; Wright et al., 2008). This study demonstrates the mediating role of domestic



resource acquisition in the relationship between returnee entrepreneurs' social network and firm performance. Therefore, we provide a more complete temporal account of returnee entrepreneurs by capturing the interactions of various networks across three periods, pre-overseas, overseas, and post-return, as well as the means of their effect on performance.

## **2. Theory and hypotheses**

### **2.1 Social networks in entrepreneurship**

Social networks play an essential role in entrepreneurial success (Leyden, Link, & Siegel, 2014). A key benefit of networks for the entrepreneurial process is the access to information and know-how, as strong, repeated social connections result in norms of reciprocity that yields trust (Coleman, 1988). The “actual and potential resources embedded within, available through, and derived from the network of relationships possessed by individuals or social units” are believed to be social capital (Nahapiet & Ghoshal, 1998: 243), which provides competitive advantages (Bourdieu, 2005). In addition, social relationships can have reputational or signaling effects (Khoury, Junkunc, & Deeds, 2013). Under circumstances of uncertainty and ambiguity, social relationships help entrepreneurs gain legitimacy, which also leads to subsequent beneficial resource exchanges. Thus, networks are considered an essential factor in the entrepreneurial process that affects resource acquisition, as well as entrepreneurial survival and success (Hitt, Ireland, Sirmon, & Trahms, 2011).

While prior studies tend to focus on social networks in close proximity that

benefit information and resource exchange, recent studies have extended the benefits of knowledge flows to geographically distant ties (Bae et al., 2011; Oettl & Agrawal, 2008; Roberts & Beamish, 2017). It is believed that although individuals have moved to another location, they are not forgotten. Information and knowledge may still flow to the individuals' prior locations because social relationships can span or persist over time, space, and organizational boundaries (Agrawal et al., 2006). Oettl and Agrawal (2008) also demonstrated the reverse knowledge flows from the receiving country to the source firm through cross-border labor mobility, based on the assumption that a mover will at least partially maintain relationships with the prior location. This suggests that as carriers of social capital, mobile individuals even across borders could still benefit knowledge flows because their personal ties endure over space and time, at least partially.

However, ties in geographic separation may lead to a lower chance of face-to-face interaction and incur higher costs to sustain compared with co-located networks (Agrawal et al., 2006), which makes the assumption of "enduring ties over time and space" questionable. Returnee entrepreneurs are disassociated or isolated from the home country when they stay abroad, at least to some extent, as it is difficult to maintain close personal connections without geographical proximity (Inkpen & Tsang, 2005; Liu, Gao, Lu, & Wei, 2015). Moreover, ties that span across national borders may face even more impediments of communication and information sharing due to differences in institutional environments, languages and customs, and time

zones (Kogut & Zander, 1992; Welch & Welch, 2008). Thus, we could infer that ties spanning across borders may persist over time, but the degree of such persistence varies. Some ties may endure perfectly or persist partially, while others may fade away. These differentials of tie persistence may depend on individuals' efforts in network maintenance across space, such as home country embeddedness while overseas in the case of returnees (Baruffaldi & Landoni, 2012).

Returnee entrepreneurs' home country embeddedness while overseas refers to the extent to which returnees were integrated into home country-related networks while abroad (Baruffaldi & Landoni, 2012; Wang, 2015). Greater engagement in home country-related networks while overseas maintains and deepens returnees' connection to the home country and thus enables enduring relationships, which in turn grants them greater access to the information and resources embedded within the home country. Resource acquisition is a key element of the entrepreneurial process and the most important factor affecting the survival and success of entrepreneurial firms (Hitt et al., 2011). Returnee entrepreneurs may maintain various degrees of home country embeddedness while overseas, which leads to variation in domestic resource acquisition in entrepreneurship upon return. Moreover, returnees' networks can be divided into three periods to reflect their two-way movements—pre-overseas, overseas, and post-return. While focusing on the impact of home country embeddedness while abroad on returnee-founded firm performance, we also seek to understand its interactions with pre-existing local ties before going abroad and newly

formed local collaborations upon return. Our research framework is shown in Figure

1.

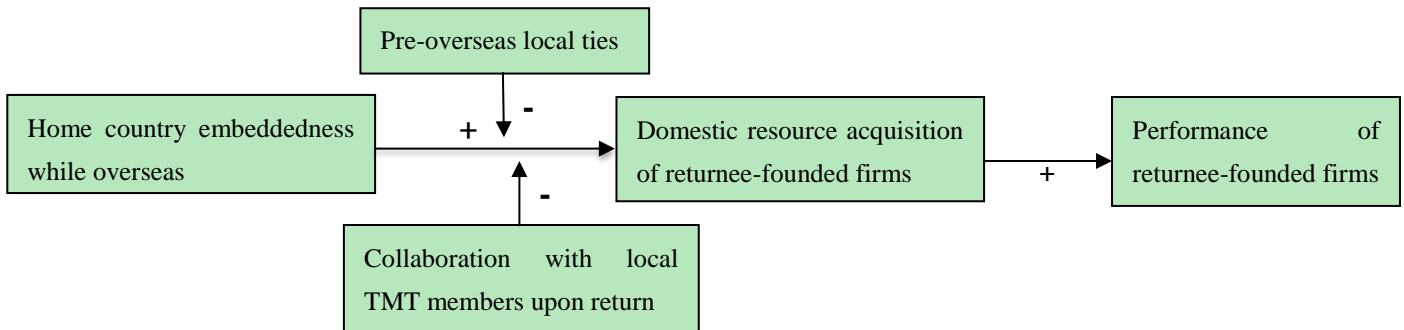


Figure 1. A moderated mediation framework

## 2.2 Home country embeddedness while overseas, domestic resource acquisition and firm performance

Returnees vary in the extent to which they engage in home country-related networks while overseas. As suggested by Burt (2002) and Bourdieu (1986), network relationships fade and weaken over time because of the nonuse of networks, referred to as network decay. Cross-border networks could decay because of decreased regular interactions and actors' immersion in local networks and activities (Prashantham & Dhanaraj, 2010). Therefore, returnees who are inactive in connecting with home country networks while abroad are more likely to suffer network decay, while those who intensely maintain home country connections may have enduring relationships and enjoy information and resource flows.

This variation in returnee entrepreneurs' home country embeddedness while overseas may affect their ability to acquire domestic resources after return through two dimensions: resource access and knowledge flows. First, enduring social

networks foster credibility and trust and reduce uncertainty during resource exchanges (Leyden et al., 2014). Even when resource seekers do not have direct relationships with resource holders, networks with prestigious local actors can provide potential investors with certification signals of quality, reliability and legitimacy, which reduces the perceived uncertainty and risks associated with the focal returnee firm. Stronger home country embeddedness while overseas suggests an active engagement with home country actors and signals reliability and trust, thus facilitating easier access to domestic resources after return.

Second, a higher level of home country embeddedness while overseas facilitates information and knowledge flows from the home country, which keeps returnees closely connected to their home country. As suggested by the literature, returnees usually suffer difficulties of readjustment and identity confusion after a long time of living abroad because of fading knowledge about the home country (Ahlstrom et al., 2008; Gaw, 1995; Kane & Levina, 2016). However, if they have a high level of home country engagement while overseas, they will be more likely to have a shared identity and common understanding with the home country players, which facilitates the development of reciprocal relationships (Phillips, Tracey, & Karra, 2013). Thus, remaining embedded in the home country while overseas could maintain returnees' familiarity with their home country with updated local knowledge and "the rules of the game", which helps facilitate future domestic resource acquisition after return.

Based on the above reasoning, we argue that returnee entrepreneurs with a higher

level of home country embeddedness while overseas enjoy enduring home country relationships that foster trust, credibility, and shared understanding and thus facilitate domestic resource acquisition. The strategic entrepreneurship literature suggests that entrepreneurial firms may be strong in opportunity-seeking skills, but they are generally resource-constrained, indicating great needs to acquire external resources to appropriate value from the opportunities the firms choose to pursue (Bruton, Filatotchev, Si, & Wright, 2013; Hitt et al., 2011). In other words, resource acquisition is fundamental and can explain the performance differentials of new ventures (Sirmon & Hitt, 2003). Whether returnee entrepreneurs can acquire valuable and rare resources in the domestic market, including financial, human and customer resources, is a key determinant of entrepreneurial firm performance. Therefore, returnee entrepreneurs who have a higher level of home country embeddedness while overseas are more likely to acquire domestic resources, which in turn leads to better performance:

*Hypothesis 1: Returnee entrepreneurs' home country embeddedness while overseas has an indirect positive relationship, via domestic resource acquisition, with the performance of returnee-founded firms.*

### 2.3 Alternative mechanisms to substitute home country embeddedness while overseas

During the overseas period, returnees have high potential to transfer knowledge and deepen the connection between the home and host countries (Kenney, Dan, & Murphree, 2013; Saxenian, 2006). However, this requires returnee immigrants to be

embedded in the host country network to benefit from knowledge flows in the host country context, which may to some extent weaken the possibility of simultaneously maintaining engagement in the home country-related activities. Given that time and attention are both limited, maintaining a high level of home country embeddedness while overseas may weaken returnees' host country embeddedness and hinder potential brain circulation. Therefore, it is important to recognize the tension between engaging in host country networks and maintaining home country embeddedness and to examine whether there is an alternative way to substitute home country embeddedness while overseas. More specifically, we ask the following question: Are there strategic actions that might compensate for the home country network decay, while giving full play to returnees' potential advantages related to the host country after return?

Based on the previous literature, the effect of home country embeddedness resulting in enduring cross-border relationships could be substituted by two mechanisms. First, the social network perspective suggests that although ties generally decay over time, some ties, such as strong ties or imprinting networks, create a fundamental, permanent connection over time and space (Burt, 2002; Levin, Walter, & Murnighan, 2011; McEvily, Jaffee, & Tortoriello, 2012). Therefore, returnee entrepreneurs' strong and imprinting pre-overseas local ties may have an enduring effect regardless of efforts to maintain the network. This suggests that returnee entrepreneurs could reactivate dormant ties in pre-overseas local networks to

compensate for missing or a low level of home country embeddedness while abroad.

Second, while returnee entrepreneurs' enduring networks could facilitate knowledge and resource flows in the entrepreneurial process in the home country, the literature suggests that the relational advantages diminish due to redundant relationships, whereas the benefits of social capital result from the diversity of information embedded in dispersed networks and non-redundant contacts (Burt, 1992, 1997). Therefore, as entrepreneurship often involves teams (Ucbasaran, Lockett, Wright, & Westhead, 2003), returnee entrepreneurs could form new collaborations with local partners after return, who serve as brokers to connect with the home country networks and facilitate local resource acquisition, which makes returnee entrepreneurs' home country embeddedness less important.

The two substitutive mechanisms echo returnees' two-way movement and the interactions of networks or related strategic actions during the three different periods of pre-overseas, overseas, and post-return. In particular, we argue that, although returnee entrepreneurs' home country embeddedness while overseas could allow entrepreneurs to maintain enduring relationships with the home country that facilitate local resource acquisition after return, strategic actions, such as leveraging pre-overseas local ties and partnering with local actors after return, can serve as alternative mechanisms to substitute home country embeddedness.

### *2.3.1 Leveraging pre-overseas local ties.*

The home country usually includes many subnational contexts with diverse



regions and ethnicities. Returnee entrepreneurs may have developed local ties in different cities in their home country before going abroad. Some returnee entrepreneurs may start up a new business in the same city where they had pre-overseas local ties, while some may choose a new city due to policy support or an attractive local market. We propose that starting a business in a city where returnee entrepreneurs have pre-overseas local ties grants them advantages.

First, family links and study or early-career work experience in a city may grant returnee entrepreneurs strong ties and imprinting networks with local actors due to ongoing, frequent, and regular interactions (Granovetter, 1973). On one hand, early-career-stage ties have a critical and permanent influence that generates enduring network benefits over time and space (Marquis, 2003; McEvily et al., 2012). For example, early career mentors and peers, as well as initial network ties, confer persistent influence on subsequent individual careers (Azoulay, Liu, & Stuart, 2017; McEvily et al., 2012). On the other hand, these strong ties could remain latent or dormant when returnees are overseas. As Burt (2005: 197) observed about the “decay” of ties, “when events pull friends apart—they graduate to positions in different cities, or they marry into different circles—the friendship is not destroyed but instead goes into remission. It lies there, inactive, waiting to be revived when occasion permits”. Reactivation of the dormant ties also provides efficient access to novel knowledge due to new experiences and learning during dormancy (Levin et al., 2011). Therefore, pre-overseas local ties with hometown fellows, alumni and colleagues in the start-up

location enable returnee entrepreneurs to enjoy enduring network benefits, as well as the efficiency and novelty of reconnecting dormant ties, which may substitute the role of maintaining home country embeddedness while overseas in facilitating resource acquisition after return (Casillas, Moreno, Acedo, Gallego, & Ramos, 2009; Levin et al., 2011).

Second, the persistent imprinting effect due to networks in the early-career stage will enable returnee entrepreneurs to share common understanding and identity despite the passing time and changing environment (Marquis & Tilcsik, 2013). Although some knowledge and shared perspective may fade over time while abroad, the fundamental knowledge (e.g., dialect and customs) in the place where people were born, studied, or worked tends not to vanish (Liu et al., 2015). For example, speaking the same dialect could easily grant individuals an in-group identity (Ahlstrom, Chen, & Yeh, 2010). Returnee entrepreneurs with prior local ties may still be considered “one of our own” if they once lived, studied or worked in a region (i.e., city) before going abroad, which facilitates their resource acquisition, especially in uncertain circumstances of entrepreneurship (Casillas et al., 2009; Phillips et al., 2013).

Based on the above two effects, we argue that returnee entrepreneurs’ pre-overseas local ties in the venture location can provide an alternative mechanism for high embeddedness in the home country while overseas to acquire local knowledge and resources. Prior local ties with family, friends and workplace colleagues formed during “an early period” have imprinting effects and serve as a

source of local knowledge and understanding that grants returnee entrepreneurs shared identity with local resource holders (Mathias, Williams, & Smith, 2015; Milanov & Fernhaber, 2009). Those pre-overseas local ties in the venture location do not decay over time, even across borders, and thus mitigate the importance of home country embeddedness while overseas in domestic resource acquisition. This suggests that a returnee entrepreneur's early-life local ties in the firm's location will reduce the strength of the relationship between home country embeddedness while overseas and firm performance through domestic resource acquisition:

*Hypothesis 2: Returnee entrepreneurs' pre-overseas local ties moderate the positive indirect relationship between home country embeddedness while overseas and firm performance via domestic resource acquisition in that the positive indirect relationship is weaker when returnee entrepreneurs have more pre-overseas local ties in the start-up location.*

### *2.3.2 Collaboration with local TMT members upon return*

From a social network perspective, the benefits of social capital result from the diversity of information and the brokerage connections between otherwise disconnected clusters (Burt, 2005). An alternative for returnee entrepreneurs to have local ties by themselves is to work with local partners who could serve as brokers between the returnee entrepreneurs and local actors. Thus, the presence of local TMT members could substitute the enduring local networks of returnee entrepreneurs and

lower the importance of their home country embeddedness in resource acquisition (Burt, 1992; Ruef, 2002) for two main reasons.

First, as insiders in home country networks, local TMT members can act as a bridge between returnee entrepreneurs and domestic resource holders, facilitating information and resource flows between two previously unconnected parties (Pearson, Carr, & Shaw, 2008). Local TMT members can also provide endorsement or assurance for returnee entrepreneurs, generating reliable signals to local resource holders (Khoury et al., 2013). With local TMT members, returnee-founded firms are more likely to gain access to various resources from domestic resource holders due to the trust and obligation embedded in local networks, especially in emerging economies where networks and trust are important for seeking resources in entrepreneurship (Batjargal et al., 2013; Liu et al., 2015).

Second, local TMT members act as knowledge brokers to provide necessary local knowledge to support returnee entrepreneurs' new relationship formation with local players. In the interactions between local actors and returnee entrepreneurs, local TMT members can bridge the two parties, thus facilitating understanding and avoiding potential cultural conflicts (Gao, Knight, Yang, & Ballantyne, 2014). While returnee entrepreneurs may experience conflicts of norms in the home country due to the influence of their overseas experience in other (e.g., Western) cultures (Black, Gregersen, & Mendenhall, 1992), local knowledge brokers could help them readapt to the local context. Therefore, the presence of local TMT brokers could facilitate

knowledge flows between the local context and returnee entrepreneurs, improving returnee entrepreneurs' understanding about local culture and norms, and thus help returnee-founded firms to become embedded into the local context.

Based on the above arguments, we propose that the presence of local TMT members serves as a substitutive mechanism for and reduces the effect of returnee entrepreneurs' home country embeddedness while overseas. On the one hand, local TMT members can connect returnee entrepreneurs with the home country, reducing the effect of returnee entrepreneurs' own enduring relationships. On the other hand, local TMT members can also serve as a knowledge broker for returnee entrepreneurs to facilitate their readaptation to the local environment through quick learning about the local context and knowledge after return, which also decreases the importance of home country embeddedness while overseas. Therefore, we propose:

*Hypothesis 3: Returnee entrepreneurs' collaboration with local TMT members moderates the positive indirect relationship between home country embeddedness while overseas and firm performance via domestic resource acquisition in that the positive indirect relationship is weaker with the presence of local TMT members in the returnee entrepreneurial firm.*

## **2. Data and methods**

### **3.1 Sample**

Our data were collected through surveying returnee-founded firms in collaboration with Zhongguancun Science Park (ZSP) in Beijing and the Association

of Chinese Returnees. ZSP was officially established in 1998 and has remained the largest science park in China since its establishment (Filatotchev et al., 2009). Moreover, ZSP is commonly known as China's Silicon Valley (Zhongguancun Science Park, 2009) and has attracted a large number of returnees and local entrepreneurs. Previous studies have selected ZSP as their research setting (Lin et al., 2016; Liu et al., 2010). We sampled ZSP's returnee-owned firms, which have returnees as founders. Our questionnaire was first developed in Chinese, translated into English and back-translated into Chinese with assistance from independent translators to ensure conceptual equivalence. A pilot study was carried out with four returnee entrepreneurs with overseas educational backgrounds who had started their own businesses. Each was asked to complete the questionnaire and identify any unclear questions. We modified the questionnaire based on their feedback.

We then collaborated with the administrative committee of the ZSP and the Chinese Association of Returnees in June 2012 and obtained a list of 1,109 firms, including the contact information of the returnee entrepreneurs. We sent invitation letters in Chinese and links to the questionnaire website through emails and mailings to the returnee entrepreneurs. To encourage responses, we followed previous studies by 1) using a personalized salutation in the email to establish a connection with the recipient, 2) emphasizing the salience and relevance of the topic, 3) increasing the incentive to complete the questionnaire by promising to send a copy of the report, and 4) using two rounds of follow-up invitations (Cycyota & Harrison, 2006). The online

survey was open from June to October 2012. We finally obtained 169 surveys for a response rate of 11.2%, which is comparable to previous recent studies based on surveys of entrepreneurs (McKelvie, Haynie, & Gustavsson, 2011; Ucbasaran, Westhead, & Wright, 2009). A total of 136 surveys were retained after responses with missing data were omitted. The possibility of nonresponse bias was checked by comparing respondents' characteristics with those of the completed listed population sample based on the official archival data on all firms founded by returnee entrepreneurs in ZSP through 2011. Specifically, the analysis of variance (ANOVA) results for firm size and returnee employee percentage of the returnee-founded firms were all statistically insignificant, indicating no significant differences between respondent and non-respondent firms and, to some extent, showing the good sample representativeness and generalizability of our findings.

## 3.2 Measures

### 3.2.1 *Dependent variable.*

*Performance* was measured as the returnee entrepreneurs' satisfaction with their firms. The challenge of measuring entrepreneurial firm performance due to the lack of published information and low reliability of financial performance for new ventures is widely recognized (Chandler & Hanks, 1993). Satisfaction with performance, although subjective, has been considered a fundamental measure of entrepreneurial firm performance, and this measure has been shown to possess strong internal consistency and reliability (Chandler & Hanks, 1993). Following previous studies on

entrepreneurship (Davidsson & Honig, 2003; De Clercq & Sapienza, 2006), we measured returnee-founded firm performance with a multi-criteria satisfaction with performance scale along the following three dimensions: 1) Market share, 2) Growth in sales, and 3) Profitability. The items were rated on a scale ranging from 1 (strongly dissatisfied) to 5 (strongly satisfied), and the same scale was used for other measures. The Cronbach's alpha of the three items was 0.91.

### *3.2.2 Independent variable.*

Following Wang (2015) and Baruffaldi and Landoni (2012), we define *Returnee entrepreneurs' home country embeddedness* as the extent to which the returnee entrepreneurs are integrated into the home country network or maintain home country connections while abroad. The variable is measured based on three perspectives. First, past research on returnee networks suggests that measures of home country embeddedness entail counting the different forms of interactions with the home country communities, including hometown associations, former colleagues, and sport clubs (Sequeira, Carr, & Rasheed, 2009; Wang, 2015). Therefore, we capture returnee entrepreneurs' home country embeddedness through the extent of their connections with three groups of domestic communities. Specifically, we asked the following questions: During the period of staying overseas, to what extent did you maintain connections with people in your home country: 1) Connections with domestic alumni associations; 2) Connections with domestic colleagues; and 3) Connections with domestic hometown associations. Second, the literature also highlights the role of



overseas ethnic networks in linking the home country and host countries (Pruthi et al., 2018; Zaheer, Lamin, & Subramani, 2009). Therefore, we asked about returnee entrepreneurs' association with three types of ethnic networks overseas: 1) Connections with overseas Chinese alumni associations, 2) Connections with overseas Chinese ethnic associations, and 3) Connections with overseas hometown associations. These items were rated on a scale ranging from 1 (no contact) to 5 (close contact). Third, an objective indicator was added to measure the returnee entrepreneurs' extent of geographic isolation from the home country by asking the average number of days returnee entrepreneurs stayed in the home country each year during their overseas experience: 1) 0 days, 2) 1-30 days, 3) 31-60 days, 4) 61-90 days, and 5) over 90 days. The average of all the above scales from the three perspectives constitutes the measure of *home country embeddedness*. The Cronbach's alpha for all these items of *home country embeddedness* was 0.77.

Following previous studies about the resource acquisition of nascent firms, we considered different dimensions of resources including customer, governmental, financial, technological, and human resources (Ireland, Hitt, & Sirmon, 2003). We measured the ease of returnee-founded firms' acquiring different resources in the domestic market. Specifically, the mediator, *Domestic resource acquisition* of the returnee-founded firm, was measured in the following five aspects, based on the conditions in 2012: 1) government resources, 2) customer resources, 3) human resources, 4) technological resources, and 5) financial resources. The Cronbach's

alpha for the five items was 0.89.

Returnee entrepreneurs may have local ties in the places where they lived, studied, or worked before they went abroad. Because China is a country with a vast territory and diverse regions and ethnicities, returnee entrepreneurs may have different levels of connections in different cities. Some returnee entrepreneurs may start up a new business in the city where they had extensive pre-overseas local ties, while others may do so in a new city due to policy support or market attractiveness. Therefore, we specifically measured returnee entrepreneurs' pre-overseas local ties in their new ventures' location—Beijing. Because childhood, education and work experience are the major sources of developing family ties, school ties and work ties (Granovetter, 1973), we measured *Pre-overseas local ties* based on the following three questions: 1) I was brought up in Beijing before going abroad and had family links there, 2) I was educated in Beijing before going abroad and had ex-classmates there, and 3) I worked in Beijing before going abroad and had ex-colleagues there. The Cronbach's alpha for the three items was 0.85.

A direct and effective way of collaborating with local residents is to involve local TMT members who may serve as brokers between returnee entrepreneurs and the local market (Wang & Lu, 2012). Therefore, we measured such collaboration as a dummy variable, *Local TMT members*. We considered any of the following positions to be on the TMT: board director, chief executive officers (CEOs), chief marketing officers (CMOs), chief operation officers (COOs), chief human resource officers

(CHOs), chief technology/R&D officers (CTOs) and chief finance officers (CFOs). We asked respondents whether the people in any of the above positions (if applicable) were returnees or local members. Then, we assigned the variable a value of “1” if the top management team had at least one local member and otherwise “0”.

### 3.2.3 Control variables.

To take into account other important determinants of the performance of returnee-founded firms, we first controlled for individual-level variables. We controlled for *Overseas time* to measure the length of time that the returnee entrepreneurs had spent in the host countries because that influences their embeddedness in the host countries. This was measured as a continuous integral variable based on the response to “In which year did you come back to China” minus “In which year did you go overseas to study/work”. We then controlled for returnee entrepreneurs’ *Overseas education* for the impact of human capital on firm performance, which was measured as a continuous variable based on the question “What is the highest degree you obtained overseas”; “No degree” was coded as “0”, “Bachelor’s” as “1”, “Master’s” as “2”, “Doctorate” as “3”, and “Postdoctoral experience” as “4”. Overseas entrepreneurial experience was also controlled for because serial entrepreneurs are more able to identify and exploit business opportunities than those without such experience (Ucbasaran et al., 2009). *Overseas entrepreneurial experience* was measured as a dummy variable that was assigned a value of “1” if the respondent had started a business abroad and “0” otherwise. We

also controlled for *Years before founding after return* as the time between the returnee entrepreneurs' return to their home countries and the start of their businesses because they could rebuild local networks after return before founding new businesses. This variable was measured based on the response to "In which year did you set up the firm" minus "In which year did you come back to China". Moreover, we controlled for *Age when going abroad* of the returnee entrepreneurs because this may influence returnee entrepreneurs' experience in the home country before going abroad.

Second, we controlled for firm-level variables, including *Firm age*, the duration since the firm was founded, and *Firm size*, the number of employees working in the firm at the end of 2011, which was coded as 1-5<sup>iii</sup>. We controlled for firm *R&D intensity* measured as five levels of the percentage of R&D expenditure to sales: under 20%, between 20% and 40%, between 40% and 60%, between 60% and 80%, and above 80%. Gaining access to overseas resources, especially financial resources, is one of the key differentiators between returnee and local entrepreneurs. Thus, we controlled for overseas financial resource acquisition by creating a dummy variable, *Overseas registered capital*, which we assigned a value of "1" if a sample firm has registered capital from overseas, and otherwise "0".

We also used a dummy variable to categorize the industries in which the returnee-founded firms operated into *Strategic emerging industries*, which was assigned a value of "1" if the industry belonged to one of the seven national strategic

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<sup>iii</sup> 1: fewer than 10 employees; 2: 10-49 employees; 3: 50-199 employees; 4: 200-999 employees; 5: 1000 employees and above.

emerging industries according to China's 12th Five-Year Plan Outline<sup>iv</sup>. Otherwise, the value was "0". Third, because the institutional environment in host countries influences returnees' overseas advantages, we controlled for the economic conditions of the host countries and generated a dummy variable of *OECD host country* following the World Bank's categorization.

### **3.3 Analytic Strategies**

OLS regression was used to test the hypotheses because the dependent variable, *Performance*, was a continuous variable with a normal distribution. We took a number of steps to minimize and test the effects of common method variance (CMV) (Chang, van Witteloostuijn, & Eden, 2010; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). First, we improved the scale items by using multiple item constructs and different scale formats for predictors and criterion measures. Second, we counterbalanced the survey question order. Third, we used a linear regression model with interaction effects, which can reduce the likelihood of CMV because respondents are unlikely to be guided by a cognitive map that includes difficult-to-visualize interactions. Finally, following Harman's single-factor test, we conducted a confirmatory factor analysis (CFA) with all of the variables used in our study. The results showed that a single factor model did not fit well (CFI=0.00; RMSEA=0.13). We also performed an exploratory factor analysis (EFA) with all of the variables that yielded six factors with eigenvalues greater than one, which explained 60.54 percent of the total variance. The

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<sup>iv</sup> China's State Council issued the "12th Five-Year Plan Outline" and laid out seven strategic emerging industries: information technology, biology, high-end equipment manufacturing, new energy, new materials and new energy, auto, energy-saving and environmental protection.

largest factor explained only 15.94 percent of the variance, and these test results suggest that CMV did not pose a serious problem in this study.

Considering the retrospective nature of our survey, we checked for recall bias. We separated the sample into newer and older firms using the firm ages of 3 years and 5 years as cut-off points. Kolmogorov-Smirnov two-sample tests showed that the distribution of ratings on returnee entrepreneurs' home country embeddedness and pre-overseas local ties did not differ significantly between firms with younger age and those with older age. Therefore, recall bias was not a severe issue. We also tested the model in separate samples using firm ages of 3 years, 4 years, or 5 years as the cut-off point, and the results were all consistent with our main findings.

To take potential endogeneity into account, we adopted two-stage least squares estimation (2SLS) (Bascle, 2008). Specifically, we adopted the Hausman test (Hausman, 1978) to detect whether or not the independent variable, returnee entrepreneurs' *home country embeddedness*, suffered from endogeneity. In the first stage of 2SLS estimation, returnee entrepreneurs' home country embeddedness was regressed on the instruments and covariates. We identified two instruments that are more likely to influence returnee entrepreneurs' home country embeddedness but less likely to affect firm performance. The first instrument measures whether the returnee entrepreneur had received postgraduate education or higher education before going abroad. Since individuals may have differential access to network contacts based on their level of human capital (Gibbons, 2004), individuals with higher education in the

home country may be more knowledgeable about domestic networks and the environment, such that they enjoy more grants of embeddedness. The other instrumental variable captures returnee entrepreneurs' work experience in the home country before going abroad. The longer they have worked in the home country, the more likely they are exposed to and embedded in the networks of the home country. Moreover, higher education and work experience before going abroad serve as channels to keep in touch with the home country when staying abroad, thus increasing returnee entrepreneurs' home country embeddedness while overseas (Qin & Estrin, 2015). However, neither education nor work experience before going abroad seems to have a direct and clear impact on firm performance after a long period of staying abroad. The results show that both instruments in the first stage estimation are significantly correlated to returnee entrepreneurs' home country embeddedness, suggesting that these variables are reasonably strong instruments (Appendix A). Including the residual of the reduced form equation based on the Hausman test in the structural equation, the results showed that the coefficient of the residual is insignificant ( $r=-0.59$ ,  $p>0.1$ ). Therefore, endogeneity is not a big concern for returnee entrepreneurs' home country embeddedness.

To test the indirect relationship between returnee entrepreneurs' home country embeddedness and firm performance through domestic resource acquisition, we applied the coefficient test recommended by MacKinnon, Lockwood, Hoffman, West, and Sheets (2002). Specifically, we used the bootstrap method (bootstrap sample

size=1,000) to generate asymmetric confidence intervals for the indirect relationships and test whether pre-overseas local ties and collaborations with local TMT members moderate the indirect relationship (Edwards & Lambert, 2007).

### 3. Results

To evaluate the discriminant validity of the variables (performance, domestic resource acquisition, pre-overseas local ties, and returnee entrepreneurs' home country embeddedness), we first conducted a series of confirmatory factor analyses. As shown in Table 1, the fit indices indicate that the hypothesized four-factor model fits moderately well (RMSEA=0.06, CFI=0.96), and importantly, it fits significantly better than any of the alternative nested models ( $p < 0.001$ ), thus providing support for the distinctiveness of the constructs in this study.

Table 1. Confirmatory factor analysis results

Factor Structure	$\chi^2/df$	CFI	RMSEA	RMSEA CI	$\Delta\chi^2 (\Delta df)$
1. Four-factor model	1.87	0.96	0.06	(0.04, 0.08)	
2. Three-factor model (Home country embeddedness combined with Pre-overseas local ties)	4.32	0.84	0.12	(0.11, 0.13)	186.55 (3)***
3. Three-factor model (Performance combined with Domestic resource acquisition)	6.16	0.72	0.15	(0.14, 0.16)	322.82 (3)***
4. Two-factor model (Performance combined with Domestic resource acquisition and Pre-overseas local ties)	10.32	0.34	0.20	(0.19, 0.21)	651.87 (5)***
5. One-factor model	12.08	0.09	0.22	(0.20, 0.23)	797.05 (6)***



Table 2. Summary statistics and correlations

	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Performance	3.02	0.91	1	5															
2. Domestic resource acquisition	3.12	0.86	1	5	0.51***														
3. Home country embeddedness	2.94	0.80	1.14	4.71	0.38***	0.31***													
4. Pre-overseas local ties	2.87	1.26	1	5	0.28***	0.07	0.43***												
5. Local TMT members	0.89	0.32	0	1	0.09	0.12	0.04	0.15											
6. Overseas time	9.85	6.11	2	25	-0.07	-0.03	0.02	-0.11	0.04										
7. Overseas education	2.30	0.91	0	4	-0.02	0.05	0.06	-0.01	0.21**	0.23***									
8. Overseas entrepreneurial experience	0.38	0.49	0	1	0.10	-0.02	0.00	-0.04	0.01	0.34***	0.11								
9. Years before founding after return	1.48	2.31	0	11	0.06	0.04	-0.04	0.03	0.00	-0.19**	-0.08	-0.33***							
10. Age when going abroad	26.37	5.47	12	42	0.06	0.13	0.08	-0.11	0.09	0.05	-0.03	-0.07	0.02						
10. Firm age	4.47	2.80	1	12	-0.01	0.09	0.01	-0.12	0.03	0.07	0.06	0.18**	-0.14	0.06					
11. Firm size	2.28	0.94	1	5	0.21**	0.17*	-0.03	-0.01	0.30***	0.22**	0.32***	0.11	-0.19**	0.11	0.28***				
12. Overseas registered capital	0.06	0.23	0	1	-0.08	0.00	-0.03	0.12	-0.02	0.08	0.00	0.03	-0.01	0.05	0.05	0.00			
13. R&D intensity	2.93	1.44	1	5	0.05	0.03	-0.02	0.07	0.16*	0.08	0.24***	0.13	0.08	-0.03	-0.06	-0.05	0.21**		
14. Strategic emerging industries	0.80	0.41	0	1	0.18*	0.10	0.04	0.05	0.14	0.12	0.22**	0.14	-0.04	0.02	0.17*	0.19**	-0.05	0.26***	
15. OECD host countries	0.94	0.23	0	1	0.19**	0.18**	-0.01	-0.05	0.02	0.19**	0.12	0.12	0.05	0.02	-0.16*	0.11	-0.09	0.06	-0.04

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

Table 2 presents the means, standard deviations and correlations of the variables. The variance inflation factor (VIF) for each variable was less than two, which shows that the degree of multicollinearity was low.

Hypothesis 1 predicted that returnee entrepreneurs' home country embeddedness would be positively related to firm performance via domestic resource acquisition. The results of Model 2 in Table 3 and Model 1 in Table 4 show that home country embeddedness was significantly positively associated with domestic resource acquisition and firm performance ( $r=0.45$ ,  $p<0.001$  and  $r=0.26$ ,  $p<0.001$ ). Meanwhile, domestic resource acquisition had a significantly positive effect on firm performance ( $r=0.48$ ,  $p<0.001$ ). Taken together, the results indicate that the positive effect of returnee entrepreneurs' home country embeddedness on firm performance is partially mediated by domestic resource acquisition. Specifically, they show that holding other variables constant, a one-unit increase in returnee entrepreneurs' embeddedness while overseas resulted in a 0.26-unit increase in domestic resource acquisition, which in turn led to a 0.45-unit enhancement of firm performance.

The results of overseas registered capital are also worth noting. Although we expected overseas capital to have an impact on firm performance, the results do not show a significant influence on either domestic resource acquisition ( $r=0.08$ ,  $p>0.1$ ) or firm performance ( $r=-0.22$ ,  $p>0.1$ ). This may be due to the compounding effects of overseas capital. On the one hand, overseas capital may imply that the focal firms have advantages in gaining access to resources and knowledge from foreign countries that

benefit performance. On the other hand, firms backed by foreign capital may suffer the liability of foreignness and lack local legitimacy, thus encountering obstacles in securing domestic resources and achieving desirable firm performance (Qin et al., 2017).

Hypotheses 2 and 3 predicted that returnees' local ties before going abroad and local TMT members' engagement would substitute the indirect effect of returnee entrepreneurs' home country embeddedness on firm performance via domestic resource acquisition, whereby the positive indirect relationship would become weaker when returnee entrepreneurs had extensive pre-overseas local ties or collaborated with local brokers. The results of Model 2 and Model 3 in Table 4 show that the interaction between returnee entrepreneurs' home country embeddedness and pre-overseas local ties and the interaction between returnee entrepreneurs' home country embeddedness and local TMT members were both negative and significant ( $r=-0.18$ ,  $p<0.05$  and  $r=-0.40$ ,  $p<0.05$ ).

Table 3. Ordinary Linear Regression of Returnee Entrepreneurs' Home Country Embeddedness on Firm Performance

	M1	M2	M3	M4
Overseas time	-0.03+ (0.01)	-0.03* (0.01)	-0.02 (0.01)	-0.02+ (0.01)
Overseas education	-0.13 (0.10)	-0.17+ (0.09)	-0.12 (0.09)	-0.15+ (0.08)
Overseas entrepreneurial experience	0.24 (0.18)	0.24 (0.17)	0.29+ (0.16)	0.29+ (0.16)
Years before founding after return	0.04 (0.04)	0.04 (0.03)	0.03 (0.03)	0.04 (0.03)
Age when going abroad	0.01 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)

Firm age	-0.02 (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.03 (0.03)
Firm size	0.25** (0.10)	0.29** (0.09)	0.18* (0.09)	0.22** (0.08)
Overseas registered capital	-0.22 (0.35)	-0.19 (0.32)	-0.25 (0.31)	-0.22 (0.30)
R&D intensity	0.03 (0.06)	0.04 (0.06)	0.02 (0.05)	0.03 (0.05)
Strategic emerging industries	0.35+ (0.21)	0.31 (0.19)	0.26 (0.19)	0.25 (0.18)
OECD host countries	0.69+ (0.36)	0.70* (0.33)	0.30 (0.32)	0.38 (0.31)
Domestic resource acquisition			0.48*** (0.08)	0.39*** (0.09)
Returnee entrepreneurs' home country embeddedness		0.45*** (0.09)		0.32*** (0.09)
Constant	1.76** (0.56)	0.58 (0.57)	1.00+ (0.52)	0.30 (0.53)
R-squared	0.16	0.31	0.35	0.42

+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

Table 4. Ordinary Linear Regression of Returnee Entrepreneurs' Home Country Embeddedness on Domestic Resource Acquisition

	M1	M2	M3	M4
Overseas time	-0.02 (0.01)	-0.01 (0.01)	-0.02 (0.01)	-0.01 (0.01)
Overseas education	-0.05 (0.09)	-0.05 (0.09)	-0.03 (0.09)	-0.02 (0.09)
Overseas entrepreneurial experience	-0.08 (0.17)	-0.15 (0.18)	-0.13 (0.18)	-0.19 (0.18)
Years before founding after return	0.02 (0.04)	0.01 (0.03)	0.01 (0.04)	0.00 (0.03)
Age when going abroad	0.01 (0.01)	0.01 (0.01)	0.02 (0.01)	0.01 (0.01)
Firm age	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)
Firm size	0.16+ (0.09)	0.16+ (0.09)	0.15 (0.09)	0.14 (0.09)
Overseas registered capital	0.08 (0.33)	0.20 (0.33)	0.19 (0.33)	0.26 (0.33)

R&D intensity	0.03 (0.06)	0.02 (0.06)	0.03 (0.06)	0.02 (0.06)
Strategic emerging industries	0.13 (0.20)	0.12 (0.20)	0.10 (0.20)	0.14 (0.20)
OECD host country	0.76* (0.34)	0.64+ (0.34)	0.90* (0.34)	0.78* (0.34)
Returnee entrepreneurs' home country embeddedness	0.26*** (0.07)	0.30*** (0.08)	0.58** (0.18)	0.49* (0.22)
Pre-overseas local ties		-0.06 (0.09)		-0.06 (0.09)
Returnee entrepreneurs' home country embeddedness × Pre-overseas local ties		-0.18* (0.08)		-0.13 (0.08)
Local TMT members			0.05 (0.25)	-0.03 (0.26)
Returnee entrepreneurs' home country embeddedness × Local TMT members			-0.40* (0.20)	-0.45* (0.22)
Constant	1.61** (0.53)	2.09*** (0.56)	1.46** (0.54)	1.92*** (0.56)
R-squared	0.19	0.23	0.22	0.28

+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

We applied the Edwards and Lambert (2007) procedure to examine the mediation effect and the moderated mediation relationship (i.e., the first-stage and direct moderation model). The results based on the bootstrapping test in Table 5 support Hypothesis 1 that domestic resource acquisition mediates the relationship between home country embeddedness and firm performance ( $r=0.13$ ,  $p=0.02$ ) with bias-corrected confidence intervals<sup>v</sup> excluding zero [0.04, 0.27]. The results in Table 5 also support Hypotheses 2 and 3. The difference between the indirect effects of

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<sup>v</sup> Confidence intervals constructed using the bootstrap method should be adjusted for any difference between the product from the full sample and the median of the products estimated from the bootstrap samples, yielding a bias-corrected confidence interval.

returnee entrepreneurs' home country embeddedness with low and high levels of pre-overseas local ties on performance was negative and significant ( $r=-0.13$ ,  $p=0.04$ ), and the bias-corrected confidence intervals were  $[-0.31, -0.02]$ , not including zero. Meanwhile, the difference between the indirect effects of returnee entrepreneurs' home country embeddedness with and without local TMT members was significantly negative ( $r=-0.20$ ,  $p=0.02$ ), and the bias-corrected confidence intervals were  $[-0.46, -0.02]$ . Table 6 decomposes the impact of the moderators on the direct, indirect, and total effects in the mediation models. The results show that the differences between the indirect effects of home country embeddedness on firm performance via domestic resource acquisition at high and low levels of pre-overseas local ties and with or without local TMT members were both significant. Therefore, Hypotheses 2 and 3 were supported. Figures 2 and 3 plot the moderating effects of pre-overseas local ties and local TMT members on the indirect relationship between returnee entrepreneurs' home country embeddedness and firm performance, which further supports both Hypotheses 2 and 3.

Table 5. The Indirect and Moderating Effects of Returnee Entrepreneurs' Home Country Embeddedness on Firm Performance via Domestic Resource Acquisition

			Coefficient	Std. Err.	z	p>z	[95% Conf. Interval] (Bias-Corrected CI)
Mediation		Indirect effect	0.13	0.06	2.27	0.02	<b>[0.04, 0.27]</b>
Moderation	-	Pre-overseas local ties (low)	0.17	0.05	3.14	0.01	[0.06, 0.32]
Pre-overseas local experience		Pre-overseas local ties (high)	0.04	0.04	1.12	0.26	[-0.04, 0.15]
		Difference	-0.13	0.06	-2.04	0.04	<b>[-0.31, -0.02]</b>
Moderation	-	Without a local TMT member	0.26	0.09	3.02	0.03	[0.06, 0.52]
Local member	TMT	With a local TMT member	0.06	0.03	1.93	0.05	$[-3.3 \times 10^{-3}, 0.16]$
		Difference	-0.20	0.08	-2.35	0.02	<b>[-0.46, -0.02]</b>

Table 6. Effect Decomposition Results of the Indirect Effect of Returnee Entrepreneurs' Home Country Embeddedness on Firm Performance

	Direct effect	Indirect effect	Total effect
Pre-overseas local ties			
High	0.10	0.04	0.14
Low	0.30**	0.17**	0.47***
Difference	-0.20	<b>-0.13*</b>	-0.33*
Local TMT members			
With	0.26***	0.06	0.32***
Without	0.38*	0.26*	0.64***
Difference	-0.12	<b>-0.20*</b>	-0.32 <sup>+</sup>

+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

\* Table 6 indicates that the negative indirect effect of returnee entrepreneurs' home country embeddedness on firm performance through domestic resource acquisition was weaker at high ( $r=0.04$ ,  $p>0.1$ ) rather than low ( $r=0.17$ ,  $p<0.01$ ) levels of pre-overseas local ties, and the difference between the two effects was significant ( $r=-0.13$ ,  $p<0.05$ ). In terms of the presence of local TMT members, the negative indirect effect was stronger ( $r=0.26$ ,  $p<0.05$ ) for returnee-founded firms without local TMT members than for firms that did have these local TMT members ( $r=0.06$ ,  $p>0.1$ ), and the difference between the two categories was significant ( $r=-0.20$ ,  $p<0.05$ ).

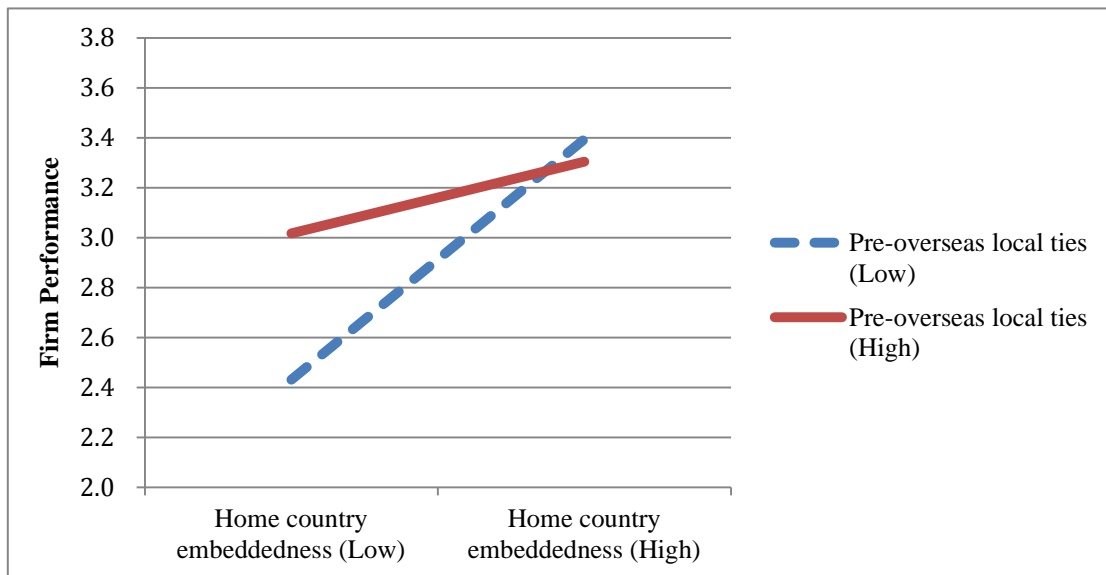


Figure 2. The Indirect Effects of Home Country Embeddedness on Firm Performance via Domestic Resource Acquisition at Low and High Levels of Pre-Overseas Local Ties

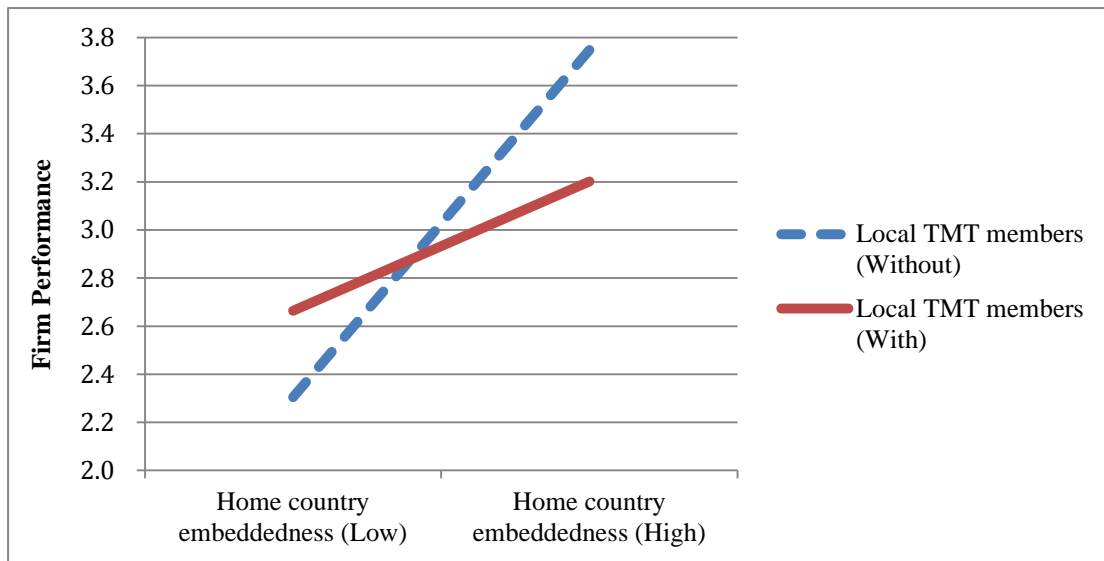


Figure 3. The Indirect Effects of Home Country Embeddedness on Firm Performance via Domestic Resource Acquisition with and without Local TMT Members

#### 4. Supplementary Analyses

##### 4.1 Additional Analyses

###### 4.1.1 Additional analysis 1.

Because many types of resources including government, financial and customer resources are all critical in the entrepreneurial process, we performed additional analyses to further explore which dimensions of resource acquisition, including government, customer, human, technological and financial resources, are more likely to be affected by the returnee entrepreneurs' home country embeddedness and thus increase firm performance (Appendix B). The results indicate that returnees' maintenance of home country connections is more likely to enhance new venture performance through the capability to acquire customer, governmental, and financial resources from the domestic market.

###### 4.1.2 Additional analysis 2.



Hypothesis 3 verified that returnee entrepreneurs' collaboration with local TMT members upon return lessens the positive indirect relationship between returnee entrepreneurs' home country embeddedness and firm performance via domestic resource acquisition. However, our measure of the presence of local TMT members within the top management team grouped together a number of roles with potentially different impacts. Accordingly, we conducted an additional analysis to investigate which positions of local TMT members were more likely to substitute the effect of returnee entrepreneurs' home country embeddedness on domestic resource acquisition (Appendix C). The results show that having a local TMT member in the position of COO or CHO limits the impact of the returnee entrepreneurs' home country embeddedness on domestic resource acquisition.

In summary, we infer from these additional analyses that returnee entrepreneurs' home country embeddedness had stronger positive influences on firm performance through enhancing the acquisition of government, customer and financial resources. Local TMT members in the positions of CHO or COO in the returnee-founded firms substituted the positive role of returnee entrepreneurs' home country embeddedness on resource acquisition more than they did in other positions.

#### 4.2 Robustness Check

As alluded to above, it is difficult to obtain archival records of entrepreneurial firm performance due to the lack of public information, and financial performance may suffer from low reliability and lack of a unified standard. However, the

subjective evaluation of firm performance by the returnee entrepreneurs may also incur some concerns about objectiveness and reliability. Therefore, in the following part, we attempt to verify the robustness of our findings by using an alternative objective measure of firm performance and addressing the concern of systematic difference in subjective performance satisfaction.

#### 4.2.1 Alternative objective measurement of firm performance

Complementary to the subjective performance measure used in this study, we matched the firms in our sample whose names were revealed in the survey with the official archival data on annual sales growth published by the administrative committee of ZSP in 2011. We achieved objective measures for 109 firms and used sales growth, defined as the firm's average annual sales growth percentage over the last three years, as an alternative measure of firm performance. We compared the subjective performance measure with the archival performance data, which show that the two performance measurements are significantly and positively correlated ( $r=0.45$ ,  $p<0.001$ ). Moreover, the results from the ordinary linear regression indicate that returnee entrepreneurs' home country embeddedness is positively and significantly related to firm sales growth ( $r=0.36$ ,  $p<0.05$ ), which is consistent with our primary hypothesis. The relationship between domestic resource acquisition and firm sales growth is also significantly positive ( $r=0.58$ ,  $p<0.01$ ). The effect of home country embeddedness is not significant after adding resource acquisition ( $r=0.18$ ,  $p>0.1$ ), which supports our hypothesis that returnee entrepreneurs' home country

embeddedness is positively related to firm performance via domestic resource acquisition. Therefore, the robustness of our findings is further verified using the alternative objective measure of firm performance. The results are shown in Appendix D.

#### 4.2.2 Systematic bias in performance evaluation

Returnee entrepreneurs with different levels of home country embeddedness may differ systematically in their expectation and, hence, in their satisfaction with firm performance. To tease out this concern, we asked the returnee respondents to evaluate the disadvantages suffered by the returnees compared with the local entrepreneurs from the market and institutional perspectives separately. Specifically, the respondents were asked to evaluate the extent to which they agreed with the following statements about their disadvantages in doing business in the home country compared with the disadvantages of the local entrepreneurs. The items were rated on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). From the aspect of market disadvantages, the returnee entrepreneurs were asked about the following: 1) the technology transferred from overseas does not fit the local market; 2) the business model borrowed from overseas has challenges of adaptation; 3) the returnees suffer from disadvantages in exploring the domestic market; and 4) the Western management style does not work in domestic firms. The Cronbach's alpha for the four items was 0.70. These respondents also evaluated the disadvantages from the institutional perspective with a Cronbach's alpha of 0.80: 1) returnees have difficulties

accessing information from domestic institutions; 2) returnees have little understanding of government policy; 3) returnees are not familiar with the local business rules; and 4) returnees are confused by the cultural conflict between the home and host countries.

The assessment of their disadvantages compared with local entrepreneurs to some extent reflects the returnee entrepreneurs' expectation of firm performance. Therefore, we divided the respondents into subgroups using different thresholds according to different levels of the returnees' home country embeddedness. Specifically, the respondent sample was divided into two, three, and four subgroups, and the ANOVA results consistently show that returnee entrepreneurs with different levels of home country embeddedness do not differ significantly in their perception of disadvantages in the local market or in institutional comprehension compared with local peers (Two subgroups between-group ANOVA:  $F=0.26$ ,  $p=0.61$ ;  $F=0.58$ ,  $p=0.45$ ; Three subgroups between-group ANOVA:  $F=0.64$ ,  $p=0.53$ ;  $F=1.05$ ,  $p=0.35$ ; Four subgroups between-group ANOVA:  $F=0.91$ ,  $p=0.45$ ;  $F=0.91$ ,  $p=0.45$ ). Therefore, the systematic bias in performance satisfaction with different levels of returnee entrepreneurs' home country embeddedness may not be a serious concern in this study.

## **5 Discussion**

This study examines the extent to which returnee entrepreneurs' home country embeddedness while overseas—involvement in the home country-related network when they are abroad—enhances entrepreneurial firm performance via domestic

resource acquisition and the boundary conditions to substitute the impact of such embeddedness. By focusing on the within-group differences in returnee entrepreneurs' home country embeddedness, we further deepen the understanding of the complexity of returnee entrepreneurs' networks in different periods and locations during their two-way movements between the home and the host countries. While previous studies on labor mobility generally extol the virtue of "gone but not forgotten" ties, arguing that social ties endure at least to some extent after the movers leave (Agrawal et al., 2006; Oettl & Agrawal, 2008), studies on remigrations emphasize returnees' disassociation with local networks due to a long period of geographical isolation (Gaw, 1995; Li et al., 2012). Our results reconcile this inconsistency by considering the role of embeddedness in the prior location while being geographically distant. They show that geographically distant ties do not always endure or decay but that they depend on the extent of network embeddedness while the mover is in another location.

Our results also show that domestic resource acquisition is an explanatory mechanism of the relationship between returnee entrepreneurs' home country embeddedness and their firm performance, providing support for the argument that returnee entrepreneurs' maintenance of domestic networks while overseas provides a useful approach to acquire domestic resources for their firms, which in turn promotes firm performance. Prior studies advocate returnee entrepreneurs as boundary spanners or dual resource acquirers from both the home and host countries (Drori, Honig, &

Wright, 2009; Roberts & Beamish, 2017) but simultaneously question their ability to acquire domestic resources (Li et al., 2012), given that resource acquisition in the home country after return is considered challenging and needs complementary platforms, such as institutional intermediaries (e.g., science park) to access resources (Armanios et al., 2016). Our study demonstrates the mediating role of domestic resource acquisition and showed that performance variance is partially attributed to the social network variance of returnee entrepreneurs via domestic resource acquisition.

Beyond uncovering resource acquisition as a mediator, we further explore which types of domestic resource acquisition are more likely to be activated by maintaining local connections and thus promote firm performance. The results of additional analysis 1 show that entrepreneurs' home country embeddedness increases firm performance through acquiring governmental, customer and financial resources. This finding indicates that personal networks are more salient in seeking context-specific resources. While domestic governmental and financial resource acquisition rely greatly on local networks, customer resource acquisition requires understanding about the local market. This extends our understanding of the complexity of returnee entrepreneurship. Although governments in emerging markets have issued supportive policies for returnee entrepreneurship in terms of governmental endorsement and financial support, returnee entrepreneurs' enduring local networks originating from home country embeddedness also represent an effective way of acquiring local

context-specific resources. Therefore, maintaining home country embeddedness while overseas is important for returnee entrepreneurship.

We also identified and tested the boundary conditions under which returnee entrepreneurs can leverage alternative mechanisms to substitute home country embeddedness. The results show that founding new ventures in locations that allow leveraging pre-overseas local ties or collaborating with local TMT members who serve as brokers helps to overcome network decay and reduces the importance of returnee entrepreneurs' home country embeddedness for firm performance. While previous studies tend to investigate different categories of ties, such as co-ethnic ties or alumni ties (Pruthi et al., 2018; Qin & Estrin, 2015), our research goes a step further to delineate the differential effects of tie formation and maintenance in different periods on performance via resource acquisition. Our findings imply that returnee entrepreneurs with two-way movements could make a trade-off by focusing more on immersing into the host country context instead of maintaining home country embeddedness while overseas but then leverage pre-overseas local ties or team up with local managers in their firms upon return to acquire domestic resources.

To further differentiate the moderating effects of the collaborations between returnee entrepreneurs and various local TMT members, we conducted additional analysis 2 to test the effects of different types of collaboration by specifying local managers' positions. The results show that local TMT members serve as substitutive mechanisms for returnee entrepreneurs' home country embeddedness when they are

in charge of human and operational resource acquisition, indicating that local partners who are capable in operations and human resource management can compensate for the lack of home country embeddedness. However, the results also show that when local TMT members are general managers, they complement the benefits of network embeddedness by returnee entrepreneurs. Their experience provides not only local ties for resource acquisition but also expertise in doing business in the local context, which could not be accumulated by returnees through maintaining home country embeddedness.

Our study advances the literature on returnee entrepreneurship and labor mobility in three main ways. First, although some scholars have recognized the differentials among returnees (Roberts & Beamish, 2017; Wang, 2015), prior studies tend to treat returnee entrepreneurs as a unit of analysis compared with local counterparts (Dai & Liu, 2009; Qin et al., 2017; Wright et al., 2008). By exclusively focusing on a sample of returnee-founded firms, this study shed light on the heterogeneity among returnee entrepreneurs in terms of their remote embeddedness in the home country while overseas. As such, we are more able to concisely capture the unique network characteristics of cross-border labor mobility and reconcile the inconsistent implications of whether cross-border ties endure over time and space. In particular, we uncover international movers' variance in distant network maintenance while they are overseas, which has differing impacts on firm performance via domestic resource acquisition.



Second, we show a more comprehensive temporal picture of returnee entrepreneurs' network formation and maintenance over different periods during their two-way movements. Previous research predominantly focuses on one type of returnees' ties (e.g., co-ethnic ties) (Pruthi et al., 2018) or on ties in a single period or location (e.g., overseas alumni) (Qin & Estrin, 2015). Moreover, the labor mobility literature tends to consider one-way mobility, without considering that people who left may also return, as returnees do (Agrawal et al., 2006). This consideration may not fully reflect the interactions of returnees' social networks in different periods and locations. By unpacking the substitutive role of leveraging pre-overseas local ties and new ties through local partnership after return, the findings provide a more complete account of the returnee entrepreneurs' two-way mobility in terms of network formation, maintenance and reactivation in different periods and locations. In doing so, our study enriches the literature on social networks and returnee entrepreneurship by broadening the horizons of social networks and capturing the complex interplay of social networks in different periods associated with returnees' two-way mobility.

Finally, by taking a social network perspective, this study reveals domestic resource acquisition as the mechanism through which remote network embeddedness could be reflected in firm performance. Prior returnee studies mainly focus on the direct relationships between returnee entrepreneurs' social capital and firm performance (Dai & Liu, 2009; Liu et al., 2010; Wright et al., 2008) but seldom explore the underlying mechanism. Our study extends the literature on social

networks and resource acquisition to returnee entrepreneurship research and reveals local resource acquisition in the home country after return as a mediating mechanism between returnee entrepreneurs' home country embeddedness while overseas and firm performance. Moreover, our research systematically examines the acquisition of different types of domestic resources needed for entrepreneurship, thus complementing prior research which mainly focused on acquiring policy-related resources for returnee entrepreneurship (Armanios et al., 2016). This helps broaden our understanding of the relationship between different types of resource acquisition and firm performance.

### 5.1 Managerial Implications

Our findings have important implications for policy and practice. First, resource acquisition serves as an important mediator for returnee entrepreneurs to improve their firm performance. Governments in emerging markets that are attempting to attract and support returnee entrepreneurs can help returnee entrepreneurs gain resources, especially government, customer and financial resources, by providing endorsement or platforms for resource exchange. Second, we provide lessons for returnee entrepreneurs who have gone abroad to bring back their overseas advantages and urge them to maintain home country embeddedness when they are overseas. To establish successful new ventures, returnee entrepreneurs need to maintain their relevant positions in home country networks by connecting to domestic friends, coworkers and schoolmates, as well as ethnic groups, while they are overseas. Third,

we also identify alternative mechanisms to substitute remote home country network embeddedness while overseas, which are to found new ventures in a location that enables returnee entrepreneurs to leverage their pre-overseas local ties or to collaborate with local TMT members, especially in the fields of human resource and operations management. Governments can also provide opportunities to facilitate collaboration between returnee entrepreneurs with overseas advantages and local actors with local embeddedness and knowledge to promote the growth of returnee entrepreneurship.

## 5.2 Limitations and future research

Our study has some limitations that present possibilities for future research. First, we investigate returnee entrepreneurship in the context of China. Although China provides an appropriate setting for studying returnee entrepreneurship in emerging economies, the generalizability of the findings from this study needs to be further verified. For example, entrepreneurs' home country embeddedness may be very important in a country that values social networks and personal connections in resource exchange. However, for countries with mature formal institutions and less emphasis on social networks, the role of entrepreneurs' network persistence could be different (e.g., Silicon Valley). Future studies could examine home country network embeddedness in different contexts and compare its influences on exploiting entrepreneurial opportunities. Moreover, our study only uses a sample from one science park in Beijing, China. Although ZSP is one of the largest science parks in the

world, and its legitimacy has been demonstrated in prior studies, the comparatively small sample size of this study may reduce the generalizability and representativeness of the results. Moreover, Beijing is the capital city of China. People born and raised in Beijing might have a bias against outsiders who have businesses in Beijing. Although this bias towards outsiders is more evident in daily life than in entrepreneurship, it could affect the advantage of “pre-overseas local ties”. Future studies could use a large sample that includes more cities other than Beijing and more returnee science parks to verify our findings.

Second, this study emphasizes returnee-founded firms’ domestic resource acquisition and only controls overseas financial resources. However, it would be an interesting and promising opportunity to study the ambidexterity of overseas and domestic resource acquisition in returnee entrepreneurship. The acquisition of both overseas and domestic resources constitutes the most salient feature of returnee entrepreneurs compared to local entrepreneurs. Moreover, although our results did not find a significant relationship between overseas capital and firm performance, this may be due to the compounding effect that returnee entrepreneurs funded by overseas capital may have easier access and higher compatibility to overseas resources but may also suffer a liability of foreignness and a longer learning process (Qin et al., 2017). Future study could investigate returnee entrepreneurs’ resource acquisition from both the host and the home country.

Third, although we empirically test whether collaborating with local partners

substitutes the impact of returnee entrepreneurs' home country embeddedness, we do not consider under what conditions returnee entrepreneurial firms are more likely to attract local partners or what factors determine successful collaboration between returnee entrepreneurs and local entrepreneurs. This represents an important and interesting research question for future studies. Relatedly, in this study, we focus on testing whether returnees' home-country networks in different periods and local collaboration substitute or complement each other. Future research could examine whether degrees of home country embeddedness motivate and lead to different levels of local collaboration.

Finally, constrained by the lack of availability of a longitudinal archival dataset, we used cross-sectional survey data to study the relationship between returnee entrepreneurs' home country embeddedness while overseas, resource acquisition and firm performance. Our measure for firm performance is based on returnee entrepreneurs' satisfaction. Future research should use more fine-grained measures for firm performance and longitudinal data to account for the time effect on firm performance.

## **6 Conclusion**

Our study focuses on the cross-national networks in the context of returnee entrepreneurship. Specifically, we studied the effects of returnee entrepreneurs' home country embeddedness while overseas on firm performance in exploiting

opportunities in the home country context. We identified resource acquisition as a mediating mechanism and revealed the alternative mechanisms through which returnee entrepreneurs can compensate for the lack of home country embeddedness while overseas, notably through pre-overseas local ties and local TMT members acting as brokers. By applying a social network perspective to returnee entrepreneurship and uncovering the way social networks influence firm performance, our new insights from the context of returnee entrepreneurship may open the way for future studies to explore the social network of international labor mobility and a variety of underlying mechanisms and strategic actions for the exploitation of entrepreneurial opportunities across national borders.

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Appendix A

Table A.1 First stage Ordinal Linear Regression Explaining Returnee Entrepreneurs' Home Country Embeddedness

<b>DV: Returnee entrepreneurs' home country embeddedness</b>	
<b>Instrumental variables</b>	
Returnee entrepreneurs' postgraduate education before going abroad	0.30+ (0.16)
Returnee entrepreneurs' work experience before going abroad	0.37+ (0.22)

Table A.2 Hausman Test for Endogeneity of Returnee Entrepreneurs' Home Country Embeddedness

<b>DV: Performance</b>	
Overseas time	-0.03* (0.01)
Overseas education	-0.20* (0.09)
Overseas entrepreneurial experience	0.25 (0.17)
Years before founding after return	0.05 (0.03)
Age when going abroad	-0.01 (0.01)
Firm age	-0.01 (0.03)
Firm size	0.30** (0.09)
Overseas registered capital	-0.22 (0.32)
R&D intensity	0.03 (0.06)
Strategic emerging industries	0.30 (0.19)
OECD host country	0.72* (0.33)
Home country embeddedness	1.02* (0.45)
<b>Residuals</b>	<b>-0.59</b> (0.46)
Constant	-0.87 (1.25)
R-squared	0.32

+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0

## Appendix B

Table B.1 Ordinary Linear Regression of Returnee Entrepreneurs' Home Country Embeddedness on Firm Performance via Different Aspects of Domestic Resource Acquisition

DV: Performance	M1	M2	M3	M4	M5	M6
Overseas time	-0.03* (0.01)	-0.02 (0.01)	-0.02+ (0.01)	-0.02* (0.01)	-0.02+ (0.01)	-0.03* (0.01)
Overseas education	-0.17+ (0.09)	-0.13 (0.08)	-0.16+ (0.08)	-0.15+ (0.08)	-0.16+ (0.09)	-0.17+ (0.09)
Overseas entrepreneurial experience	0.24 (0.17)	0.25 (0.16)	0.29+ (0.16)	0.29+ (0.15)	0.27 (0.17)	0.25 (0.16)
Years before founding after return	0.04 (0.03)	0.04 (0.03)	0.05 (0.03)	0.05+ (0.03)	0.04 (0.03)	0.03 (0.03)
Age when going abroad	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Firm age	-0.02 (0.03)	-0.03 (0.03)	-0.02 (0.03)	-0.01 (0.03)	-0.03 (0.03)	-0.02 (0.03)
Firm size	0.29** (0.09)	0.23** (0.08)	0.22* (0.08)	0.23** (0.08)	0.25** (0.09)	0.28** (0.09)
Overseas registered capital	-0.19 (0.32)	-0.37 (0.30)	-0.24 (0.30)	-0.42 (0.29)	-0.08 (0.32)	-0.11 (0.32)
R&D intensity	0.04 (0.06)	0.04 (0.05)	0.04 (0.05)	0.02 (0.05)	0.03 (0.05)	0.04 (0.05)
Strategic emerging Industries	0.31 (0.19)	0.21 (0.18)	0.25 (0.18)	0.21 (0.18)	0.28 (0.19)	0.34+ (0.19)
OECD host countries	0.70* (0.33)	0.48 (0.31)	0.53+ (0.31)	0.36 (0.30)	0.51 (0.33)	0.55+ (0.33)
Customer resource acquisition		0.35*** (0.08)				
Governmental resource acquisition			0.27*** (0.07)			
Financial resource acquisition				0.34*** (0.06)		
Technological resource acquisition					0.20** (0.07)	
Human resource acquisition						0.18* (0.07)
Home country embeddedness	0.45*** (0.09)	0.31*** (0.09)	0.34*** (0.09)	0.35*** (0.08)	0.39*** (0.09)	0.39*** (0.09)
Constant	3.26*** (0.60)	2.00** (0.64)	2.51*** (0.60)	2.48*** (0.56)	2.80*** (0.61)	2.82*** (0.61)
R-squared	0.31	0.40	0.40	0.45	0.35	0.35

+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

Table B.2 The Indirect Effects of Returnee Entrepreneurs' Home Country Embeddedness on Firm Performance via Different Aspects of Domestic Resource Acquisition

Mediation	Coefficient	Std.			[95% Conf. Interval]
		Err.	z	p>z	(Bias-Corrected CI)
Customer resource acquisition	0.13	0.06	2.23	0.03	[0.04, 0.28]
Governmental resource acquisition	0.11	0.05	2.21	0.02	[0.04, 0.23]
Financial resource acquisition	0.10	0.05	1.95	0.05	[0.01, 0.20]
Technological resource acquisition	0.06	0.04	1.38	0.17	[4.7x10 <sup>-3</sup> , 0.18]
Human resource acquisition	0.06	0.04	1.45	0.15	[2.3x10 <sup>-3</sup> , 0.18]

\* Table B.1 shows the changes in the coefficients of the home country embeddedness after including different types of domestic resource acquisition into the model. Table B.2 shows that customer resource acquisition, governmental resource acquisition, and financial resource acquisition mediate the negative relationship between the home country embeddedness and firm performance.

Appendix C

Table C.1 The Interaction Effects of Returnee Entrepreneurs' Home Country Embeddedness (HCE) and Local TMT Members in Different Positions on Domestic Resource Acquisition

	M1	M2	M3	M4	M5	M6	M7
Control variables	YES	YES	YES	YES	YES	YES	YES
Home country embeddedness (HCE)	0.25** (0.08)	0.20* (0.08)	0.45* (0.20)	0.67*** (0.16)	0.77*** (0.20)	0.18+ (0.10)	0.41* (0.19)
Local members as Board Director	0.21 (0.29)						
<b>HCE x Local members as Board Director</b>	<b>0.29</b> (0.26)						
Local members as CEO		0.02 (0.19)					
<b>HCE x Local members as CEO</b>		<b>0.35+</b> (0.20)					
Local members as CMO			-0.04 (0.21)				
<b>HCE x Local members as CMO</b>			<b>-0.27</b> (0.22)				
Local members as COO				0.14 (0.19)			
<b>HCE x Local members as COO</b>				<b>-0.52**</b> (0.19)			
Local members as CHO					0.23 (0.24)		
<b>HCE x Local members as CHO</b>					<b>-0.62**</b> (0.23)		
Local members as CTO						0.12 (0.17)	
<b>HCE x Local members as CTO</b>						<b>0.10</b> (0.16)	
Local members as CFO							-0.18 (0.21)
<b>HCE x Local members as CFO</b>							<b>-0.23</b> (0.21)
Constant	1.51** (0.55)	1.42** (0.53)	1.52* (0.58)	1.38* (0.58)	1.11+ (0.59)	1.45** (0.55)	1.59** (0.57)
R-squared	0.21	0.22	0.18	0.27	0.26	0.19	0.20

+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001



## Appendix D

### Ordinary Linear Regression of Returnee Entrepreneurs' Home Country Embeddedness on Firm Sales Growth

	M1	M2	M3
Overseas time	-0.01 (0.02)	0.00 (0.02)	0.00 (0.02)
Overseas education	-0.33* (0.16)	-0.31* (0.15)	-0.33* (0.15)
Overseas entrepreneurial experience	0.2 (0.30)	0.25 (0.30)	0.25 (0.30)
Years before founding after return	-0.05 (0.06)	-0.04 (0.06)	-0.05 (0.06)
Age when going	0.01 (0.02)	0.00 (0.02)	0.00 (0.02)
Firm age	0.00 (0.05)	-0.01 (0.05)	-0.01 (0.05)
Firm size	0.56*** (0.16)	0.46** (0.15)	0.49** (0.15)
R&D intensity	-0.22 (0.60)	-0.32 (0.58)	-0.3 (0.58)
Strategic emerging industries	0.07 (0.10)	0.07 (0.10)	0.07 (0.10)
OECD host country	0.54 (0.36)	0.4 (0.35)	0.44 (0.35)
Domestic resource acquisition	-0.12 (0.61)	-0.49 (0.60)	-0.48 (0.60)
Home country embeddedness		0.58*** (0.16)	0.53** (0.17)
Constant	0.36* (0.18)		0.18 (0.18)
R-squared	0.65	0.55	0.27

+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001