

**Top Management Team's Formal Network and International Expansion of Chinese
Firms: The Moderating Role of State Ownership and Political ties**

Jie Wu
Business School
University of Aberdeen
King's College,
Aberdeen, AB24 3FX
Email: jiewu@abdn.ac.uk

Geoff Wood
Western University
Ontario, Canada
Tel +1 519-661-2111 x82535
gwood23@uwo.ca

Zaheer Khan*
University of Aberdeen, UK
Tel +44 (0) 1224 272000
Corresponding author's email: zaheer.khan@abdn.ac.uk

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Abstract

This article explores the role of the formal network centrality of top management teams (TMT) for foreign expansion, looking at the case of Chinese firms. The former is defined by the degree to which top managers are connected with TMTs of other firms in formal ways, through service as independent board members. We explore boundary conditions, comparing state ownership with political ties. The analysis of a panel data of 489 firms expanding to 72 developed and developing host markets in the period 2000–2012 confirms that network centrality facilitates internationalization. We found that TMT network centrality had a stronger effect on internationalization in developed than emerging markets. Conversely, state ownership had a positive moderating effect in the latter and political ties a negative effect in developed ones. The literature on comparative institutional analysis suggests that formal ties are more important in developed economies, and informal ties in emerging ones. However, formal political ties and/or links to the Chinese state may be more of value in internationalizing into other emerging markets, where the balance of diplomatic power may be more skewed in China's favor.

Keywords: TMT network centrality; networks; state ownership; political ties; diplomatic FDI strategies; Chinese firms; internationalization

1. Introduction

There is a growing body of work on the internationalization of multinational enterprises (EMNEs) from emerging markets (cf. Buckley, Cross, Tan, Liu, Voss, & Zheng, 2007; Deng, Yang, Wang, & Doyle, 2017; Hennart, 2012; He, Khan, Lew & Fallon, 2019; Kumar, Singh, Purkayastha, Popli, & Gaur, 2020). A primary concern of existing studies has been on exploring the motives behind their internationalization and what extent current theories explain the rapid rise of these firms (Buckley, 2018; Hennart, 2012; Hernandez & Guillén, 2018; Luo & Tung, 2007, 2018; Ramamurti, 2012). It has been argued that EMNEs are challenged by weaker or less comprehensive institutions in their home countries, a lack of internal capabilities (e.g., technology, innovative skills, marketing and management capacity and expertise), and a relative lack of experience of operating abroad (Buckley, Clegg, Voss, Cross, Liu, Zheng, 2018; Cuervo-Cazurra & Genc, 2008; Luo & Tung, 2007; Witt & Lewin, 2007; Wu & Chen, 2014). In other words, these firms face the liability of “emergingness”, and that posed by their country of origin (Cuervo-Cazurra, Newburry, & Park, 2016; Madhok & Keyhani, 2012); not only does this make overseas expansion more difficult, but it also makes it hard for EMNEs to secure competitive advantage in foreign markets. However, EMNEs—most notably those from China—possess home- country based advantages that may help internationalization (Bhaumik Driffield, & Zhou, 2016; Cuervo-Cazurra & Genc, 2008; Cuervo-Cazurra & Ramamurti, 2017; Guillén & Garcia-Canal, 2012; Kotabe, Jiang, & Murray, 2011). These include links to their home governments, which may hold out the promise of diplomatic support. Indeed, many of the firms expanding from China and other emerging markets are state-owned enterprises (SOEs), which have access to key resources and networks (Cui & Jiang, 2012; Liang, Ren, & Sun, 2015; Williamson, 2015).

There is an emerging body of work that looks on the impact of network ties on internationalization strategies (Guler & Guillen, 2010). Al-Laham and Souitaris (2008) argue

that in settings where international linkages are already 'dense', local alliances more easily assume international dimensions. Athanassiou and Nigh (2002) explore how the past work and life experience and the networks that come with it are moulding the scale and the scope of internationalisation. Other work highlights how formal network relationships can help facilitate imitation of others, and accordingly accelerate internationalization (Oehme & Bort, 2015). Some recent work adopts a more explicitly institutional approach in understanding networks, which the present study places at the heart of its analysis. For example, Odlin and Benson-Rea (2017) conclude that firms may use networks to leverage network asymmetries across institutional holes. This study adds to this work through according more direct attention to the role of the state and state owned enterprises, and formalized ties, in understanding the relationship between networks and internationalization.

Comparative institutional theories highlight how the nature and density of ties between firms and other actors are closely bound up with both setting, and internal and external events (Jackson & Deeg, 2008). There is a broad body of existing research on the role of informal social networks as a means of compensating for institutional shortfalls in emerging markets (Marquis & Raynard, 2015; Powell & Oberg, 2017); this would include the very extensive literature on Guanxi in China (Murray & Fu, 2016; Bian, 2017). However, it could be argued, that as national systems evolve, formalized network ties assume a greater importance (Powell & Oberg, 2017). In other words, whilst informal ties represent a mechanism for compensating for systemic shortfalls in less mature institutional settings (Wood, Dibben, Stride, Webster, 2011), more deeply embedded formalized ties enable more complex exchange relations in more developed ones, supported by more complex and effective institutional arrangements (Jackson & Deeg, 2008). In more general terms, visible network centrality reduces uncertainties associated with expansion into foreign markets (Rosenkopf & Padula, 2008). The latter might

reflect both the direct resources that belong to a network might confer, and how other actors perceive such ties.

Hence, it could be argued that TMT formal network ties (such as serving in non-executive director roles in other organizations)—which form the core concern of this paper—assume a greater importance in operating in mature markets. This is because they clearly and unequivocally signal the formal linkages the firm can bring to bear, which may be particularly valuable for outsiders that are unfamiliar with the challenges of navigating the type of informal networks commonly encountered in many emerging markets (Grabher & König, 2017). Information on the formal ties of TMT's helps other players to better decide on the relative benefits of engaging with incoming Chinese MNEs. TMT brings both social and human capital to the internationalizing firms (Coviello, 2006; Holm, Johanson, & Kao, 2015; Johanson & Vahlne, 2003), which can be vital for the emerging markets' firms—given their weak resource base. Again, having influence in more than one organization means that a wider range of contacts might be leveraged, and, enables access to more comprehensive information and knowledge as to the realities of operating in a particular market. Recent work on institutional specificity alerts us that ties to developmental states are of great value to firms operating in emerging markets (see Allen, Allen, Lange, 2018; Amin, 2017). Many Chinese MNEs have been able to count on diplomatic support from the Chinese government, which may be facilitated by close political ties with the ruling party (Clegg, Lin, Voss, Yen, & Shih 2016). However, this may be counter-productive in mature markets, where the competition for FDI is less intense and where there is less of an imbalance in diplomatic power between China and the host country (Lu & Biglaiser, 2020; Shapiro, Vecino, & Li, 2018). Indeed, the present ratchetting up of diplomatic tensions between China and the US means that links to the former government may be more of a liability than an asset in operating within the latter, and in its close ideological allies (e.g. the UK and Australia).

This study extends and supplements earlier work on the effects of relative social network centrality on foreign expansion (Guler & Guillen, 2010; Shijaku, Larraza-Kintana, & Urtasun-Alonso, 2018) through focusing on the formal network ties of TMTs. Empirically, we examine TMTs' network advantages (both social and human capital), state ownership, political ties and OFDI of a sample of 489 Chinese manufacturing firms internationalizing to 72 hosts developed and developing markets from 2000–2012.

This study thus makes several key contributions to the existing literature. First, we extend prior work on the impact of social network advantage on foreign market entry (Ayyagari, Dau & Spencer, 2015; Holm et al., 2015; Shijaku et al., 2018), bringing to bear fresh insights from China, in focusing on formal network ties, and hence supplementing work that explores the informal dimensions of networks (Rugman, 2016). It further complements work, which evaluates the effects of managerial and spatial ties within China (Kotabe et al., 2011; Teng, Huang, & Pan, 2017). We highlight the different ways in which formal TMT network centrality in the home market moulds Chinese MNE's internationalization between developed and developing markets. Second, this study also contributes to the recent scholarly discussion around the global factory and comparative institutional analysis through exploring how home country social network may exert an influence across national boundaries, and how this varies according to institutional maturity, and firm orientation and ownership characteristics (Cui & Jiang, 2012). Both have common ground in their intellectual debt to transaction cost economics, which in turn, seeks to explain how agents seek to manage and mitigate transaction costs (see Bower, 2020; Allen, 2004; Buckley & Strange, 2015), and this study sheds further light on how these commonalities might facilitate synthesis in their extrapolations. We could conclude that formal networks indeed matter more when host countries are more developed. Third, we demonstrate that the impact of TMT network centrality in the home market on foreign expansion depends on whether a firm is state owned or not: state ownership seems to make

formal networks more important for expansion to developed markets than in the case of emerging ones, as in its own right it may signal the firm has access to superior financial and diplomatic resources. On the other hand, TMT political ties may make the effect of network centrality less important for the expansion of Chinese MNEs' expansion; this negative moderating effect is stronger for Chinese MNEs' expansion to more developed markets than in the case of developing economies. In other words, we confirm that links to the Chinese state and ruling party help Chinese firms in emerging markets, but raise obstacles in their expansion to mature ones.

2. Theoretical Background and Hypotheses Development

Among various firm-specific advantages, those that are conferred by social networks have attracted increasing research attention. Shi, Sun, Pinkham, & Peng (2014) found that domestic alliance network advantage enables local firms to attract foreign partners (cf. Iurkov & Benito, 2018a). Guler and Guillen (2010) concluded that home country network advantage shape firms' international expansion and choice of destination. Similarly, the process theories of internationalization highlight the important role of home market-based networks in facilitating firms' internationalization (Johanson & Vahlne, 2003). Our study supplements this work and the broad body of work on Chinese outward FDI (cf. Chen, Li, & Shapiro, 2015; Drogendijk & Martín, 2015; Wang, Hong, Kafouros, & Wright 2012a) through exploring more closely the effects of formal network ties, state ownership and political ties, and through the deployment of two complementary branches of theory: comparative institutional analysis and the literature on global factory (e.g., Buckley & Ghauri, 2004), which builds onto the internalization theory (Buckley & Casson, 1976). The former accords particular attention to how national level institutions shape and reshape the nature and quality of ties between actors (Jackson & Deeg, 2008). The latter illuminates how home country formal network ties exert an influence across

national boundaries, and how this varies according to institutional maturity, firm orientation and ownership characteristics (Buckley & Ghauri 2004). An alternative, and undeniably influential theoretical approach to understanding formal and informal network ties, is social capital theory (Dubos, 2017; Tsai & Ghoshal, 1998). However, we chose to focus on the former two strands of thinking, giving the particular attention they accord to state owned enterprises under different institutional regimes, and the relative role of private actors in China in comparison to what is the case around the world. Furthermore, there has been increased interest in how institutions shape network behaviour in China (Chen, 2020).

There are many types of formal network ties. Whilst it is acknowledged that the formal networks of senior managers only represents one of these—and that different networks overlap and impact on each other (Jackson & Deeg, 2008)—each will contribute to specific sets of outcomes and may be possible to gauge its distinct contribution (Walker, Brewster, & Wood, 2014; Wood et al., 2011). TMTs with ties to other organization through being on the board bring valuable knowledge and experience (Hillman, Canella, & Paetzold, 2000), which in turn facilitate the international expansion of firms through such networks. The existing applied literature on institutions has tended to focus more on the effects of regulation, making implicit assumptions as to the effects of formal networks (c.f. Jackson & Deeg, 2008). Again, although the recent literature around global factory highlights the importance of network ties, this has been primarily in terms of production networks, rather than their impact on the responses of other actors (Buckley & Casson, 1979; 2009). This study seeks to extend such work through focusing on the role and impact of social network ties within Chinese MNEs and the impact this has on their internationalization, and whether these vary according to host country institutions and development.

The literature on social networks defines *centrality* as the extent to which a node in a network is linked to other nodes, especially those also characterized by high social status (Scott,

2017). Centrality may also be defined as possessing sufficient social status so as to signal the quality and trustworthiness of a focal firm to all market participants (Guler & Gullien, 2010). Accordingly, in this study, we define Top Management Team (TMT) network centrality as when senior managers have denser ties to other players within business partners' network (Balkundi & Harrison, 2006).

From the 1980s, increasing numbers of MNEs sought not simply to solve external market problems through further international expansion and subsuming competitors, but also through the deepening of formalized networks, more closely binding suppliers and other partners (Buckley & Casson, 1979). This made for more flexible organizational boundaries, as activities could be outsourced more readily, in an emerging *global factory*, but at the price of increasing transaction costs (e.g., Buckley & Ghauri, 2004; Buckley, 2009). The latter may be mitigated by increasing trust, which, in turn, may be engendered through internal culture and/or via the density of ties with other key actors, including suppliers and customers (Buckley & Casson, 1979; Bachmann, 2001). As Buckley and Casson (1979; 2009) note, the rise of the *global factory* production system is a process characterized by more fluid organizational boundaries. Informed by Transaction Cost Economics, it is held that different actors operate to different sets of incentives, leading to imperfect motivations, incentives and coordination (Buckley & Strange, 2015). In response, actors seek to develop new forms of cooperation, encouraging forbearance and commitment (Buckley, 2009); networks may facilitate in developing and sustaining this.

How this unfolds is likely to vary from setting to setting, according to relative institutional development (Morgan & Kristensen, 2006; Wood et al, 2011). Comparative institutional analysis is also directly influenced by Transaction Cost Economics (TCE), but differs in assumptions as to the role of states from what the mainstream TCE tradition assumes. Comparative institutional analysis holds that state action not only poses costs on actors, but also

many states vary in the way they seek to mitigate transaction costs in the exchanges between non-state actors (Allen, 2004). In line with this departure, it is a more structure centred approach than theories of the global factory. In more mature contexts, exchange relations are more predictable, but by the same measure, the relative bargaining power of an incoming MNE is likely to be weaker, arguably making the formalized network ties of managers more important. It could be further argued that this has a particularly positive effect in terms of Chinese MNEs' expansion into developed markets than emerging ones, reflecting the relatively weaker bargaining position Chinese MNEs may find themselves in the former settings (see Buckley et al., 2018; Drogendijk & Martín, 2015; Liu, Tang, Chen, & Poznanska, 2017). In line with comparative institutional analysis (Morgan & Kristensen, 2006), we explore whether formalized network ties by managers have a greater impact on foreign expansion of Chinese MNEs when institutional settings are fluid or mature. There are limited studies that have explored managers' network ties and internationalization of firms (cf. Shijaku et al., 2018). The literature on Comparative Capitalism highlights the central role of the nation state within a cluster of national defining institutions and how these moulds and remould firm behaviour (Peck & Zhang, 2013); again, the literature on the global factory highlights how production regimes may interpenetrate spheres of greater or less state direction (see Buckley, 2018). Comparative capitalist accounts on China highlight the role of the state as both an enabler and a restrainer of markets, and how state owned enterprises straddle the public and private realms, but with close and direct linkages to core state policies (McNally, 2007; Peck & Zhang, 2013). In the following sections, we elaborate on the role of TMT network centrality and foreign expansion of firms from China.

2.1. Network centrality of TMT and foreign expansion of Chinese MNEs

Perceptions of managerial status in a network enhance a firm's legitimacy in the eyes of other actors, opening boundary spanning opportunities (Birkinshaw, Ambos, & Bouquet, 2017).

Although a firm's status is defined and measured in relational terms, signals of quality that emanates from status are available to all market participants, even to those that are not connected to the focal firm directly or indirectly because they are not part of the network (Podolny, 2005). This may be particularly valuable as a signal of quality when potential exchange partners are uncertain about the quality or trustworthiness of a new firm entering their market (Buckley & Casson, 1979; Marano, Tashman, Kostova, 2017).

Formal network ties may help mitigate the risks of country of domicile competitors mobilizing their own networks to make the position of the incoming firm more difficult. Chinese MNEs with TMTs possessing high levels of centrality in a domestic social network may be more confident in expanding to overseas markets, given the additional support they can draw on from their home-based networks of suppliers and joint ventures. Through domestic networks, firms can draw valuable knowledge and key resources (Zaheer & Bell, 2005). Managerial ties in China play an important role in knowledge acquisition and in generally improving firms' performance (Kotabe et al., 2011; Peng & Luo, 2000). Chinese firms can draw on the learning across home market-based networks and deploy this in expanding into foreign markets where TMTs' social and human capital can be a valuable source of developing competitive advantage. There is ample evidence that indicates the vital role of networks in facilitating firms' internationalization and capability development (Elango & Pattnaik, 2007; Johanson & Vahlne, 2015). Through networks, firms can gain valuable knowledge about foreign markets (Prashantham & Birkinshaw, 2015). Firms based in emerging markets face challenges due to institutional voids (Khanna & Palepu, 2000), thus TMT network centrality can be important in establishing linkages with actors in foreign markets in order to overcome home market based resource challenges. Recent studies in the context of international strategic alliances also note that those firms' having network centrality are in a better position to form subsequent international strategic alliances (Cravens, Piercy, & Shipp, 1996; Shijaku et al.,

2018). Extant studies suggest that network centrality gives firms better control over resources, which in turn improve firm's performance and profits (e.g., Cowan, Jonard, & Zimmermann, 2007). Yet, there are insufficient studies that have linked the TMT network centrality with the foreign expansion of firms originating from emerging markets. TMT network centrality can be extremely important for firms from emerging markets to overcome liability of emergingness (Madhok & Keyhani, 2012), and through network centrality emerging market firms can overcome challenges associated with foreign market expansion through utilizing social and human capital of their networks.

Based on the preceding discussions, we suggest that:

Hypothesis 1a: Chinese MNEs with TMT network centrality are more likely to expand to foreign markets (developed and developing ones).

2.2. Differentiated Impact of TMT network centrality on FDI Strategies across developed and developing markets

The literature on comparative institutional analysis draws a sharp distinction between developed and emerging markets. For example, Hall and Soskice (2001) argue that only in mature varieties of capitalism are there fully developed complementarities, that is, sets of rules, relations and practices that work better together than simply the sum of their parts would imply. In emerging markets, institutions are not yet fully comprehensive or closely coupled enough to work effectively together; hence, local actors are forced to devise their own solutions for coping with systemic shortfalls, invariably through agreeing on informal rules and conventions with their exchange partners sustained through extended informal networks (Wood et al., 2011). In contrast, whilst the density and nature (arm's length or transactional) of ties is of central importance in mature markets as well, such ties are more formal, visible, and are sustained by institutions and regulation (Jackson & Deeg, 2008), rather than compensating for them. Again, denser ties between managers and other actors help alleviate information asymmetries, and makes it easier for other actors to gauge the relative standing and potential of the firm (c.f. Hall

& Soskice 2001; Jackson & Deeg, 2008). Hence, network ties would perform profoundly different roles in developed than emerging markets (cf. Hall & Soskice, 2001; Jackson & Deeg, 2008). At the same time, it is recognized that there are important differences between markets in each broad category. For example, the US is more reliant on inward FDI from China (Allen et al., 2018), but has recently flirted with both financial and trade protectionism.

Emerging market as host locations are likely to be much less discerning in terms of inward FDI and, hence, will be less concerned with the relative standing of incoming MNE TMTs' formal networks (Kaplinsky & Morris, 2016; Lu, Huang, Muchiri, 2017). Again, Chinese MNEs are likely to have considerable experience of navigating fluid and unpredictable institutional regimes than their counterparts from the developed world (Cuervo-Cazurra & Genc, 2008). These firms have considerable experience in operating in contexts characterized by institutional voids. In contrast, in mature markets, especially given the recent protectionist turn (Buckley et al., 2018), Chinese MNEs will be in a relatively weaker position, making the ability to formally signal influence, financial backing, and standing more important, and leverage the benefits that come from having influence in multiple organizations (cf. Surdu, Mellahi, & Glaister, 2018).

Within emerging markets, Chinese MNEs are likely to be in a stronger bargaining position in their own right; host countries are likely to be much less discerning in terms of inward FDI and, hence, will be less concerned with the relative standing of incoming MNE TMTs' network centrality (Kaplinsky & Morris, 2016; Lu et al., 2017). Again, Chinese MNEs are likely to have considerable experience of navigating fluid and unpredictable institutional regimes than their counterparts from the developed world (Cuervo-Cazurra & Genc, 2008). These firms have considerable experience in operating in contexts characterized by institutional voids. In contrast, in mature markets, especially given the recent protectionist turn (Buckley et al., 2018),

Chinese MNEs will be in a relatively weaker position, making the ability to formally signal influence, financial backing, and standing more important (cf. Surdu et al., 2018).

Hence, it has been argued that in more mature institutional environments, more formalized and embedded network ties are likely to assume greater importance (Jackson & Deeg, 2008). In contrast, within settings where institutions are more fluid and regulation more capricious, informal ties that are more flexible and better equipped to evade or adjust to systemic shortfalls assume greater importance (Wood et al., 2011). Again, Chinese MNEs are more likely to be in a weaker bargaining position in mature markets; formal TMT ties to other firms, and potential influence with the latter may help signal the importance of – and benefits of engaging with – the incoming firm (Buckley et al., 2018). Hence, we expect that formal TMT network centrality matters more when Chinese MNEs expand to mature than developing markets.

Network centrality is conducive for gaining new business opportunities in foreign markets (cf. Iurkov & Benito, 2018b), thus those firms that occupy central position in a network through TMT will be in a better position to gain valuable knowledge, which in turn enable their foreign market expansion to developed markets. Recent scholarship in the context of 2152 publicly listed Indian firms also suggests that those firms which occupy central position in the network and have director interlocks are in a better position to pursue growth strategies both in the domestic and international markets (Singh, Delios, & Della Bella, 2015). Yet, TMT centrality might not confer uniformed benefits across developed and emerging markets (Yamin & Kurt, 2018). As in the case of the emerging markets, ties to business group and informal social connections are important for expansion into emerging markets compared to developed markets (Khanna & Rivkin, 2001). Recent research in the context of international strategic alliances also suggests that network centrality enable “problemistic search” in the formation of economic distant strategic alliances (Shijaku et al., 2018, p. 12). Scholarships highlight that firms can exploit their institutional bound capabilities when these firms operate in the domestic market as

well as in other emerging markets (Carney, Dieleman, & Taussig, 2016; Dau, 2013). Since there is a greater level of information asymmetry and transaction costs associated in operating in emerging markets, thus, information can easily spillover to other firms through network centrality given the weak formal intuitions in emerging markets (e.g, Dai, Jo, & Kassicieh, 2012). In this context, firms might limit the use of TMT network while expanding to emerging markets compared to developed ones. This leads us to suggest the following:

Hypothesis 1b: Chinese MNE expansion to developed markets is more likely to represent a product of formal TMT centrality than in the case of emerging ones.

2.3. The Moderating Effect of State Ownership

In this section, we explore the boundary conditions of the impact of Chinese MNEs' TMT network centrality in the domestic home market on foreign market expansion. We focus on firm-specific state ownership and formal institutional effects as two moderators, which have been widely examined as important contextual variables in the study of Chinese MNEs' foreign expansion (Buckley et al, 2018; Luo & Tung, 2007; Wu & Chen, 2014).

Significant levels of state ownership represent a defining feature of the Chinese variety of capitalism according to developments and extensions of the literature on comparative capitalism (McNally, 2007; Peck & Zhang, 2013). Inter alia, it takes account of variegations between national and regional dynamics, and connective mechanisms; the latter would encompass the role wholly and partially state owned enterprises, the latter representing in the Chinese case hybrids between capitalist and traditional state socialist organizational forms (Peck & Zhang, 2013). We seek to shed further light on this matter through examining how these moderating effects vary as Chinese MNEs expand to developed foreign markets versus emerging ones.

As the theory of MNE and recent literature on global factory alert us, the relative position of firms within global production systems is uneven, and the influence MNEs can exert in different contexts will vary according not only to intra firm capacity to solve problems posed

by external markets, but also to contextual dynamics and their relative position vis-a-vis local players (Buckley & Casson, 1979; Buckley, 2009). Indeed, prior studies suggest that state ownership can enhance the legitimacy of firms in the eyes of their stakeholders (e.g., suppliers, customers, potential collaborators) (Du & Boateng, 2015; Suchman, 1995). State ownership together with TMT domestic network centrality may assure potential foreign exchange partners that the firm will have a low risk of failure and may be able to draw on significant resources should the need arise (Cannizzaro & Weiner, 2018; He, Eden, Hitt, 2016). Such assurance greatly cultivates the trust between MNEs and foreign partners (Podolny, 1994; Stuart, 2000). In turn, this may enhance the EMNEs legitimacy and desirability as a reliable partner and subsequently may enhance its access to local resources (Podolny, 1994; Stuart, 2000). SOEs in emerging markets act as political actors because of their access to key resources (Cui & Jiang, 2012; Jiang, Peng, Yang, & Mutlu, 2015). Such network ties then enable these firms to expand to foreign markets. However, it should be recognized that state ownership may also bring with its liabilities, especially in terms of seeking foreign technologies and in seeking to engage with or acquire firms deemed of national strategic importance by the host country (Buckley et al., 2018). Partial or full state ownership may indeed make the activities of MNEs more controversial, but at the same time, it does indicate the potential to access greater resources and the capacity to exert diplomatic pressure (Chen et al., 2018). Again, it is likely to make it easier to access cheap capital, especially from state owned banks (Prasad & Rajan, 2006). It can be argued that the larger the ownership stake by the Chinese government the greater these effects will be (c.f. Hubbard & Williams, 2017). Based on this discussion, we propose that:

Hypothesis 2a: The levels of state ownership strengthen the positive effect of TMT network centrality on Chinese MNEs' expansion to overseas markets.

Emerging markets firms, particularly those with state ownership, may exert greater influence when these firms expand into other emerging and developing markets compared to

developed markets; this will reflect the weaker countervailing power of host governments (Lam, 2016). Chinese SOEs are increasingly prominent across Asia and Africa; their expansion to developed markets has often proved more challenging (Chen & Young, 2010; Cui & Jiang, 2012). Multinational SOEs play an increasingly prominent role in the global economy (Bruton, Peng, Ahlstrom, Stan, & Xu, 2015; Liang et al., 2015), yet the evidence base as to their internationalization across different institutional contexts, and the differential influence these firms may bring while operating in emerging vs. developed markets is limited. However, Chinese SOEs may face greater obstacles in developed markets, due to the recent protectionist turn, and the relative countervailing power of host governments; most emerging markets are less able to pick and choose where their FDI comes from (Lam, 2016). Structural shifts in the global balance of power have intensified an anti-China backlash in the US, exacerbated by the populist turn (c.f. Zhu, 2019). In other words, SOEs might be in a better position to overcome legitimacy issues in similar emerging/developing markets (Li, Cui, & Lu, 2018; Wang, Hong, Kafouros, & Boateng, 2012b). This is likely to result in managers tailoring their strategies according to country of domicile (Peng, Wang, & Jiang, 2008; Xu & Meyer, 2013). Based on this, we propose that:

Hypothesis 2b: The positive moderating effect of state ownership (i.e., H2a) is stronger in the case of Chinese MNEs' expansion to *less developed* markets than to developed ones.

2.4. The Moderating Effect of TMT Political ties

Again, this evaluates the extent to which managers may be guided by state-party sentiments and the potential relationship between this and firm level outcomes, as highlighted by the comparative capitalism literature on China (Fei, 2020; Peck & Zhang, 2013). As a distinct phenomenon to direct state ownership, TMT political ties may be defined as personal ties with governments and its agencies. Home country institutions - both formal and informal - play an important role on the strategic choice firms make in

emerging markets, including internationalization (e.g., Meyer, Estrin, Bhaumik, & Peng, 2009; Yamakawa, Peng, & Deeds, 2008). Institutions tend to be more fluid in emerging markets, making political connections important for firms; they may leverage them, and use them to access valuable resources (Kotabe et al., 2011; Sun, Wright, & Mellahi, 2010). Individual-based political ties may have more subtle effects than formal state ownership; nonetheless, they may shield firms from external environmental shocks (Sun, Mellahi, Wright, 2012). Political ties are context specific and may not be readily transferable across national boundaries. As with state ownership, TMTs' political ties may be associated by host markets stakeholders with a "hidden" purpose and mission (e.g., to steal key technology, to penetrate host market's national security). A good example is the strong resistance by most developed markets against Huawei's involvement in 5G mobile networks, given close ties to the Chinese state. For example, President Trump has urged all allied developed markets, ranging from EU, UK, Australia and New Zealand to boycott the technologies and products developed by Huawei, albeit with mixed results (Zhang, 2019). Nonetheless, as their effects are more subtle, political ties may present less of an outright obstacle as state ownership (Zhang, 2019). Yet, politically well-connected firms are more likely to be able to access government contracts and leverage influence than those that do not (Arnoldi & Muratova, 2019).

Moreover, individual political may tie help TMT to access insider information (e.g., new policies /regulations) on the intentions of the home government (Kotabe et al., 2011; Peng & Lou, 2000). This could be the reason why Chinese managers are more willing to spend more time, energies and resources in cultivating and maintaining personal relationships with governmental officials, because they believe the benefits associated with individual-based political ties are more straightforward and useful than any benefits that might flow from TMT network ties with other companies (c.f. Arnoldi & Muratova, 2019;

Schuler, Shi, Hoskisson, & Chen, 2017). Hence, in trading off limited time and resources in building ties with government officers vs. ties with peer managers, the latter may be more attractive. Indeed, strong TMT political ties may eclipse any benefits of network ties with peer managers in other firms. We thus hypothesize that:

Hypothesis 3a: TMT political ties weaken the positive effect of TMT network centrality on Chinese MNEs' expansion to overseas markets.

We further hypothesize that the negative moderating effect of TMT political ties on the network centrality-international expansion would be stronger in the case of Chinese MNE's expansion to more developed markets than less developed ones. In the case of the former local firms, governments and other competitors may be more effective in mobilizing opposition around Chinese MNE's political ties. Emerging economies tend to have more extensive institutional voids; political ties help offset them through providing access to key resources and, through being able to leverage home country diplomatic support mitigate contextual challenges (Khanna, Palepu, & Sinha, 2005; Peng & Luo, 2000). Although political ties are context specific, they may be more easily replicated in markets (for instance other emerging and developing markets) that possess broadly similar characteristics to the country of origin one. Hence, political ties may help emerging market MNEs working in other developing economies (e.g., Puffer, McCarthy, & Peng, 2013). Given likely differential effects according to country of domicile, we hypothesize that:

Hypothesis 3b: The negative moderating effect of political ties (i.e., H3a) is stronger for Chinese MNEs' expansion to *more developed* markets than expansion to less developed ones.

3. Data and Method

3.1. Data and sample

We tested our hypotheses using multiple data sources. We obtained financial and ownership information of publicly listed Chinese firms from China Security Market Analyses (CSMAR) series databases developed by GA information Technology Co., Ltd. –a leading financial database provider in China. CSMAR contains all publicly listed Chinese firms’ financial data, stock market value, corporate governance and other financial information over the period 2001-2012. We obtained Chinese MNEs data during the period 2000-2012 by manually reviewing their Annual Reports. To ensure the reliability of the data coding, we assigned two research assistants to crosscheck Annual Reports of Chinese MNEs to accurately identify the number of overseas subsidiaries, the location of each overseas subsidiary and the year of established subsidiaries. We linked publicly listed Chinese firms’ financial and ownership structure data from CSMAR with Chinese MNEs’ internationalization database using unique stock code. We obtained country-level information about a foreign country’s former colonies from the GeoDist database (CEPII, 2012). We matched country-level variables with firm-level variables based on unique 3-digit country codes. The final sample used here comprises of 489 firms expanding to 72 host markets between 2000 and 2012.

[Insert Table 1 about here]

In this study, we limited our focus on Chinese multinational firms that are exclusively listed on two stock exchanges: Shanghai Stock Exchange and Shenzhen Stock Exchange, which allows us to systematically check their FDIs activities over ten years. The data does not include MNEs whose main assets are in China and whose TMT come from China that is incorporated in the British Virgin Islands or primarily listed in a major financial centre such as New York or London. We appreciate that such firms may have much common ground with their more conventional Chinese peers. However, decisions to domicile in tax havens, or to list abroad reflect distinct sets of strategic choices that are likely to reflect in part, relative embeddedness

in original country of origin networks. Such firms may exhibit very distinct characteristics that go beyond the scope of this study, and hence we have taken the decision to exclude them.

3.2. Measures

3.2.1. Dependent variables

The dependent variable is the likelihood of entering a foreign market. To compute the rate of expanding to a foreign market, we shaped our sample into firm-country-year observation, where each of 489 firms was at risk of entering a foreign market of 72 potential foreign markets (*i.e.*, developed and developing) over the period 2000–2012. We used the syntax: *stset year, id(firm) failure(entry)*, to convert the data to survival-time data with multiple entries per firm. As such, the dependent variable is then coded as one if firm (i) entered a focused country (j) during a specific year (t), and zero otherwise. The final sample consists of 234,418 firm-country-year observations, which consists of 489 firms expanding to 72 host markets in the period 2000-2012. For the robustness checks, we re-run the analyses by considering the first entry per firm (see the robustness checks).

To classify 72 host markets into developed vis-a-vis less developed markets, we followed on prior studies (Piperopoulos, Wu, & Wang, 2018; Wu, Wang, Hong, Piperopoulos, & Zhuo, 2016) in generating these two groups of host countries through subtracting each host country's real gross domestic product per capita (in PPPs) from the Penn World Table (PWT)¹. Specifically, we extracted information on country-level gross domestic product per capita (GDPP) for the 2000–2012 period based on International Comparisons Program (ICP) prices. We then compared the GDPP value of the relative host country with the corresponding value

¹ The PWT converts national GDP prices into a common currency (US dollars) to make them comparable across countries.

for China (Piperopoulos et al., 2018). Based on this comparison, we divided host countries into two groups: 56 were classified into developed markets and 16 developing markets.

3.2.2. Independent variables

TMT network centrality refers to the degree of social network centrality of a top management team² (TMT) within its domestic social network; here we focus on formal network ties. In other word, the degree to which s/he is connected with the TMTs of other Chinese firms. Top management team members play critical roles in important decision-makings (e.g., internationalization) in China. Prior research has established the importance of top management team (TMT) members' social network in the flow of information and the establishment of social status in an industry (Markóczy, Li, Sun, Peng, & Ren, 2013). Again, the literature on internal diversity within national institutional contexts highlights important sectoral differences, which will mould – and be remoulded by - relative systemic embeddedness (Lane & Wood, 2009). We therefore measured the network advantages in the industry by examining the position of each TMT member of a focal firm in other firms' home country. In focusing on formalized network ties, we concentrate specifically on whether if a TMT member of the firm (*i*) serves as an executive member (e.g., an independent board member) of another firm (*j*) (c.f. Hambrick, Humphrey, & Gupta, 2015).

Following on previous research (e.g., Guler & Guillen, 2010), we measured the TMT network centrality using Bonacich's (1987) eigenvector centrality measure. We focus on those interlocks that the TMT members of a focal MNE sit on the board (e.g., independent directors) of other corporations (Ang, Benischke, & Hooic, 2018). That is, a TMT member of the firm (*i*) may serve as an executive member (e.g., board of directors) of another firm (*j*). In doing so, we constructed the symmetric matrix for each year based on top management team's interlock

² TMT members do not include non-directors of board nor executive directors who serve on boards of other firms, as the latter play less important role in the decision-making process.

information among all Chinese publicly listed firms. We then imported this symmetric matrix into R software and computed eigenvector centrality in the domestic social network using the centrality package embedded in the R software. The centrality score for the TMT of firm i in year t was specified as: $c_i = \alpha \sum A_{ji} C_j$, where α is the reciprocal of an eigenvalue and A is the adjacency matrix denoting the existing ties between firms i and j . This indicator takes into account the centrality of the actors to which a focal actor is connected. Thus, the TMT network centrality score ranges between 0 (for isolated firms with no contacts) and 1 (for firms that have contacts with other firms). The TMT network centrality of each firm i is a function of the centrality of the other firms to which it is connected. We assigned a 0 to isolated firms with no ties to others. A high value indicates that a Chinese MNE is well connected to a group of partners that are themselves well connected (Jensen, 2008; Podolny, 2001; Shipilov & Li, 2008). In Figure 1, each dot represents an individual TMT and the distribution of the dots indicate a relatively well-connected social network among the Chinese TMTs in the domestic market³.

3.2.3. Moderating variables

Our first moderating variables is state ownership. This information was obtained from publicly listed Chinese firm database, which reports the detailed information on ownership structure of each publicly listed Chinese firm. We measure state ownership according to the proportion of government ownership.

The other moderating variable is TMT political ties. Consistent with the prior studies on political ties in China (e.g., Chen, Li, Su, & Sun, 2011; Fan, Wong, & Zhang, 2007; Sun, Peng, Lee, & Tan, 2015), we measured the strength of TMT domestic political ties to the extent to which the focal TMT member has ever served as government secretary, communist party

³ It is worth noting that a number of dots (i.e., Chinese TMTs) are the peripheral of domestic social networks and do not connect with other dots. In contrast, there are a bunch of dots in the inciter of the social network. They are connected to each other and extend from the center to the other dots of the whole social network.

standing member, elected People Congress (NPC) or People's Political Consultative Committee (CPPCC) member. We review all TMT members' curriculum vita and manually identify whether he or she possesses the above political ties. If he or she does, this is coded as 1, 0 otherwise. We then sum individuals' domestic political ties across the TMT members to arrive at the strength of the TMT domestic political ties, which is further weighted by the size of the TMT.

3.2.4. Control variables

We controlled for several variables that could have influenced a firm's propensity to expand overseas. Firstly, larger firms are likely to have more resources at their disposal and, hence, available for international expansion. We controlled firm size which was proxied by number of employees (Khan & Lew, 2018; Richard, Wu, Markoczy, & Chung, 2019). The firms in our sample were large (median employment is 3839). We took the logarithmic transformation of the variable to normalize it. Secondly, we controlled for firm age, as older firms may be prone inertia, and, hence, slower in initiating a strategic movement towards a new market, which may bear a high risk (Piperopoulos et al., 2018; Wu et al., 2016). We measured firm age by the number of years elapsed since its inception. Third, we controlled for firm prior performance, because better performing firms are expected to have more resources at their disposal for international expansion than poorly performing firms. We measured firm prior performance by yearly return on assets (ROAs) of a firm. (Richard et al., 2019). Fourth, we also controlled for foreign ownership: a higher level of foreign ownership may facilitate a focal firm in accessing important information about a potential foreign market. Foreign ownership was measured by the percentage of stakes owned by foreign investors. Fifth, we controlled for technology capability, as a stronger technology capability may help a firm to expand overseas. We measured technology capability by the number of patents received by the focal Chinese MNE. Scholars have found that patent counts; these are seen as a better proxy of the firm-level

technology capability than new product counts or sales (Hall, Jaffe, & Trajtenberg, 2001, 2005; Jaffe, 1986; Jaffe & Trajtenberg, 2002; He & Wang, 2009). This information was obtained from State Intellectual Property Office, P.R.C. Sixth, we controlled for past internationalization experience which is measured by the accumulated foreign markets that a MNE entered in the previous years.

Besides firm-level variables, we also controlled for country-level variables. Specifically, we included geographic distance between China and a potential foreign country. We obtained bilateral geographic distance between two countries from the GeoDist Database (CEPII, 2012) and applied logarithm transformation to normalize it. We also included bilateral contiguity between China and a potential foreign market by including a dummy variable, which takes the value of 1 if the two countries are contiguous and 0 otherwise. In addition, we controlled for language commonality by including a dummy variable. It takes the value of 1 if two countries share a common language and 0 otherwise. The above information was subtracted from GeoDist Database. We also controlled a foreign country's economic development by including its real gross domestic product per capita (at PPPs). In addition, we controlled for relative experience of foreign market expansion. We generated three variables: the two years prior to entering overseas developed versus emerging markets, each of which was captured by the number of entry by a focal MNE into foreign/developed/emerging markets.

Finally, since the data covered multiple years, we created year dummy variables and included them in all the analyses. We also created industry dummy variables, and included them in the analyses to control industry effects.

3.3. Econometric model

We estimated Chinese MNEs' rates of entry into a foreign market using a hazard model (Allison, 1995). The hazard function is defined as: $h(t) = \lim_{\Delta t \rightarrow 0} \frac{\Pr\{t \leq T < t + \Delta t | T \geq t\}}{\Delta t}$ (1).

The hazard function specifies the instantaneous rate at which entry into a foreign market occurs

at time t , given that the event has not yet occurred (Allison, 1995; Kalbfleisch & Prentice, 2011). We used a hazard rate model because it accommodates time-varying independent variables and allows right censoring in the data (Allison, 1995). A test of the proportional hazards assumption using Schoenfeld residuals revealed that the model does not satisfy the nonproportionality assumption, suggesting that estimating the hazard rate using a Cox proportional hazards model is not suitable. We therefore modelled the hazard rate of entering a new country using the piecewise exponential model in Stata (Wu & Chen, 2014). Piecewise exponential models are semiparametric, in which the baseline hazard rate is allowed to vary in an unconstrained way in each predefined time period. This approach confers an ability to model time dependence without the more restrictive assumptions of parametric models.

To estimate the hazard rate in each time period, we followed prior studies (Hannan & Freeman, 1989) and divided the data into yearly spells, treating the observations as censored unless an event (i.e., an entry) occurred. We updated the time-varying independent variables in each annual spell, estimating the models using maximum likelihood in Stata. Because there were multiple observations for each Chinese MNE and country, observations in the sample might not be independent. Therefore, we calculated robust standard errors clustered on each country-firm pair, implemented by the “cluster” option in Stata.

4. Results

Table 1 provided some basic descriptive statistics including the mean, standard deviations and correlations of the key variables used in this study. These firms exhibited much heterogeneity in terms of size, age, and TMTs network centrality. The pairwise correlations between TMT network centrality and state ownership are 0.06, indicating that firms in the centre of social networks tend to have higher levels of state ownership; this may be due to the legitimacy effects conferred by direct state support, which facilitates the development of

managerial ties. Moreover, the correlation between firm size and TMT political ties is 0.14, indicating that large firms tend to be state-owned. While some pairwise correlations are positive and significant at the 5% level, they were all below 4.5, suggesting that multicollinearity is not a serious concern in this study.

[Insert Table 1 about here]

Table 2 presents the results of survival analyses testing the hypotheses. Models 1-4 report the estimated results using the sample of expanding to all foreign markets, Models 5-8 report the estimated results using the sample of expanding to more developed markets; and Models 9-12 report the estimated results using the sample of expanding to less developed markets. Across the models, the coefficient of TMT network centrality is positive and significant (e.g., $b=5.76$, $t=14.55$ in Model 4; $b= 5.36$, $t=11.63$ in Model 8; $b=4.23$, $t=6.75$, in Model 12, respectively), indicating that the high degree of TMT network centrality in home country promotes Chinese MNEs' foreign expansion, in support of Hypothesis 1a. Hypothesis 1b predicts that the positive effect of TMT network centrality is stronger for expansion to developed than less developed markets. To test Hypothesis 1(b), we conduct the Hausman test, comparing the coefficient size of TMT network centrality between expansions to more developed vs. less developed markets (that is, Model 8 vs. Model 12). The results ($\chi^2=2.31$ with $p\text{-value}=0.129$) suggest that the positive effect of TMT network centrality is statistically insignificant between Chinese MNEs expand to developed vs. less developed markets. Hence, Hypothesis 1b is not supported.

[Insert Table 2 about here]

Hypothesis 2a posits that the levels of state ownership strengthen the positive effect of TMT network centrality on Chinese MNEs' expansion to overseas markets. The coefficient of the interactive term "TMT network centrality * State ownership" is positive and statistically significant ($b=5.13$, $t=2.13$ in Model 4). To better illustrate, we plot the interactions in Figure

2. The x-axis represents TMT network centrality, and the y-axis represents the foreign expansion. The solid line represents the effect of TMT network centrality on foreign expansion under low levels of state ownership. The dashed line represents the effect of TMT network centrality on foreign expansion under high levels of state ownership. Both lines are positive, but the dashed line (high level) is steeper than the solid line (low level). The slope gradient for low levels of state ownership is 5.76 with $t=14.55$. The slope gradient for high levels of state ownership is 9.61 with $t=5.71$. Above all supports Hypothesis 2a. Hypothesis 2b predicts that the positive moderating effect of state ownership (i.e., H2a) is stronger for Chinese MNEs' expansion to less developed markets than expansion to more developed markets. For Chinese MNEs' expansion to developed markets, the coefficient of the interactive term "TMT network centrality * State ownership" is positive but statistically insignificant ($b=5.09$, $t=1.96$ in Model 8). To better illustrate, we plot the interactions in Figure 3. The meaning of axis and lines are consistent with Figure 2. The slope gradient for low levels of state ownership is 4.95 with $t=8.56$. The slope gradient for high levels of state ownership is 6.79 with $t=9.98$. In contrast, for Chinese MNEs' expansion to less developed markets, the coefficient of the interactive term "TMT network centrality * State ownership" is positive and highly significant ($b=22.52$, $t=3.30$ in Model 12). Similarly, we plot the relationship in Figure 4. The slope gradient for low levels of state ownership is 2.43 with $t=2.61$. The slope gradient for high levels of state ownership is 10.54 with $t=5.68$. These results indicate the positive interactive effect of state ownership and TMT network centrality is more likely to represent for Chinese MNEs' expansion to less developed markets. We conducted the Hausman test to compare the coefficient size of this interactive term between Model 8 and Model 12. The results ($\chi^2=4.21$ with $p\text{-value}=0.040$) suggest that the coefficient of the interactive term is statistically significantly different. Hence, Hypothesis 2b receives support.

[Insert Figure 2, 3, 4 about here]

Hypothesis 3a posits that TMT political ties weaken the positive effect of TMT network centrality on Chinese MNEs' expansion to overseas markets. The coefficient of the interactive term "TMT network centrality * Political ties" is negative and statistically significant ($b=-0.42$, $t=-2.42$ in Model 3; $b=-0.56$, $t=-3.00$ in Model 4). To better illustrate, we plot the interactions in Figure 5. The x-axis and y-axis are consistent with previous figures. The solid line represents the effect of TMT network centrality on foreign expansion under low levels of TMT political ties. The dashed line represents the effect of TMT network centrality on foreign expansion under high levels of TMT political ties. Both lines are positive but the solid line (low level) is steeper than the dashed line (high level). The slope gradient for low levels of TMT political ties is 6.57 with $t=13.46$. The slope gradient for high levels of TMT political ties is 4.24 with $t=6.79$. Above all support Hypothesis 3a. Hypothesis 3b predicts that the negative moderating effect of political ties (i.e., H3a) is stronger for Chinese MNEs' expansion to more developed markets than expansion to less developed ones. For Chinese MNEs' expansion to developed markets, the coefficient of the interactive term "TMT network centrality * Political ties" is negative and statistically significant ($b=-0.43$, $t=-2.28$ in Model 7; $b=-0.57$, $t=-2.81$ in Model 8). Similarly, we plot the relationship in Figure 6. The meaning of axis and lines are consistent with Figure 5. The line under low levels of TMT political ties is steeper than the high-level line. The slope gradient for low levels of state ownership is 6.59 with $t=13.06$. The slope gradient for high levels of state ownership is 4.22 with $t=6.41$. On the other hand, for Chinese MNEs' expansion to less developed markets, the coefficient of the interactive term "TMT network centrality * Political ties" is also negative and statistically significant ($b=-0.78$, $t=-3.14$ in Model 11; $b=-1.34$, $t=-4.86$ in Model 12). As shown in Figure 7, the line under low levels of TMT political ties is steeper than the high-level line. The slope gradient for low levels of state ownership is 6.17 with $t=7.98$. The slope gradient for high levels of state ownership is 0.60 with $t=0.64$. We conducted the Hausman test to compare the coefficient size of this interactive term between

Model 8 and Model 12. The results ($\chi^2=6.07$ with $p\text{-value}=0.014$) suggest that the coefficient of the interactive term is statistically significantly different. Hence, Hypothesis 3b is supported.

[Insert Figure 5, 6, 7 about here]

4.1 Robustness analysis

As noted above, we constructed the survival-time data with multiple entries per firm. One potential concern is whether the results could hold for first-time entry per firm. To address this concern, we re-constructed the survival-time data that incorporates the first-time entry by Chinese MNEs (excluding the repeated entries). We then re-run the survival analyses and present the results in Table 3. As shown in Table 3, the results are highly consistent with the ones reported in Table 2, providing additional supports for the relevant hypotheses.

[Insert Table 3 about here]

5. Discussion & Conclusion

In this study, we examined the role of country of origin TMT network centrality in facilitating Chinese MNE's foreign direct investments (Outward FDI). We suggested that any positive effect will be stronger for Chinese MNEs' expansion to developed than emerging markets. We further anticipated that the positive effect of TMT network centrality may be moderated by state ownership and/or political ties: the positive moderating effect of state ownership on TMT network centrality will be stronger for Chinese MNEs' expansion to developed markets than emerging ones, whereas the positive moderating effect of political ties on TMT network centrality will be stronger for Chinese MNEs' expansion to emerging than developed markets. The hypotheses were tested using a large sample of Chinese MNEs' overseas expansion over the period 2000 –2012. The results provide broad support for the hypotheses. Below we discuss the theoretical and managerial implications.

Firstly, prior studies have revealed the effect of network-based advantages in a firm's home country on firm strategy and foreign expansion (Guler & Guillen, 2010; Surdu et al., 2018; Shijaku et al., 2018). However, they have not yet explored variations according to the relative developmental status of the market an MNE expands into, and the specific effects of formalized network ties, indicated as to when senior office holders in the firm hold positions in others. In this study, we fill this gap by showing that formal network in home market varies according to whether host countries are developed or not. It is widely noted that leveraging informal networks represents common mechanism for alleviating information asymmetries and in compensating for institutional shortfalls (Williams & Vorley, 2015). It could be argued that familiarity with navigating and deploying network ties represents a capability set particularly valuable when entering countries with similar levels of institutional fluidity and/or shortfalls. However, formalized network ties with other firms through non-executive directorships may confer particular advantages in that they publicly signal the standing of the TMT, and their connections with other, potentially well-connected firms that might also be worth doing business with. Existing theoretical work suggests that formal network ties matter more in mature markets (Jackson & Deeg, 2008) and informal ones in emerging markets (Wood et al. 2010). In the former, they are mediated and sustained by formal regulation, and enable more effective social and economic interactions. In the case of the latter, by their nature, informal ties are more flexible and fluid, and adjust according to the scale and scope of institutional shortfalls. There has been a growing body of work that tests and confirms the predictions of the comparative institutionalist literature. To date, the scope of this work has focused on broad socio-economic features (Jackson & Deeg, 2018) and firm level work and employment practices (Goergen, Chahine, Wood, & Brewster, 2019). This study supplements this through highlighting the role of formalised networks in an emerging market setting; whilst accorded a central importance in the theoretical literature (Jackson & Deeg, 2008), to date, there has been

little that has explored their direct operation in practice. In other words, our study challenges the view that emerging markets are really about more informal networks and mature ones formal: the study highlights how formalized and informalized networks function in a way that generates complementarities for participants. Whilst MNEs are only partially embedded in any country, this study highlights how formal networks that manifest themselves in an emerging market setting, can go on to exhibit effects across national boundaries: this is especially so given the rapid expansion of Chinese MNEs from the early 2000s onwards. In short, whilst formal networks are sustained by national institutions even in an emerging market setting, the former can expand and wield and influence well beyond the latter's scope. Again, this study also contributes to the literature on global factory, through illustrating how firms might mitigate transaction costs and trust shortfalls by means of the formal network ties enjoyed by their Top Management Teams (c.f. Buckley & Casson, 1979; 2009), but supplements this work through highlighting the ambiguous role of the state; the latter may mitigate or exacerbate transaction costs as suggested by comparative institutional analysis (Allen, 2004; Bower, 2020). Both the theory of the global factory and developments and extensions of comparative institutional theory highlight how MNEs are only partially embedded in any context, and carry with them influences and resources from operating in multiple domains; this common ground might serve as a basis for future theoretical synthesis. Such a synthesis would combine Theory of the Global Factory's focus on actors and the operation of extended ties between organizations (as well as with other players), and comparative capitalisms emphasis on structures, and the positive and negative effects of states and associated institutional configurations on the strategies adopted by actors.

In contrast to formal network ties between TMTs across firms, political ties and influence may bring with its collateral damage particularly when seeking to invest abroad (Lu & Biglaiser, 2020). Although, it could be argued that, within China, all firms fall under direct

or indirect state control, this study confirms that formal state ownership does make a real difference on how MNEs behave, and the relative impact of TMT network centrality.

The findings suggest that state ownership plays an important moderating effect in enabling the internationalization of Chinese MNEs into emerging/developing markets, especially when compared to these firms' expansion into developed markets. In other words, state ownership provides a real advantage when extending to emerging markets. In the latter cases, the host government is likely not to have the same degree of diplomatic clout – and resources – as the Chinese one. These findings extend the recent literature on the effects of country of origin state traditions and institutional regimes (Bhaumik et al., 2016; Cuervo-Cazurra & Genc, 2008; García-Canal & Guillén, 2008; Jiang et al., 2015).

When it came to TMTs' political ties, we found that it has a negative moderating effect in enabling firms' expansion to developed markets when compared to developing/emerging markets, most probably reflecting the greater countervailing power of host governments vis-à-vis China. In contrast, in emerging markets, political links and influence in China might hold out the promise of diplomatic support and greater resources. Again, such managers may be more politically savvy in dealing with country of domicile politicians; skills developed in engaging with politicians at home might be transferable in engaging with those in developing countries abroad. The study's findings suggest that ownership advantage and political ties have different effects according to country of domicile. In other words, the resource advantage effects noted in the earlier literature on political ties (e.g., Frynas, Mellahi, & Pigman, 2006; Holburn & Zelner, 2010) seem variable and context specific. These differences are likely to intensify given the increasing tensions between the US and China, and growing reliance within many emerging markets on investment and aid from China.

This study has further implications for practice. It is evident that, when formal network is clearly visible, Chinese MNEs are placed in a more advantageous position when entering

developed markets. Formal network ties are rather different to informal ties; a historical reliance on the latter will pose challenges in dealing with host countries with relatively strong institutions, where such networks may be seen as subversive and/or challenges to established rules and conventions. In contrast, where the latter are weak, informal networking has greater legitimacy. Hence, in mature markets, the ways in which senior organizational leaders can formally express their ties to other organizations becomes of greater importance. Chinese MNEs, which have heavily relied on informal networks at home may find it more difficult in venturing into such contexts. In contrast, formal network ties both signal influence and make it easier for other parties to calibrate their relative worth. Finally, Chinese MNEs are different in that a much larger proportion have close ties to the state than is the case of their counterparts from most other emerging markets (Wang et al., 2012a). This study confirms that this is particularly advantageous in mature markets. Political influence at home seems to become a liability for Chinese MNEs operating in mature markets.

6. Limitations and future research directions

The study highlights the uneven and contextual specific effects of state ownership and political ties in different countries of domicile. At the same time, there are limitations, which provide important avenues for future research. First, future studies could pay closer attention as to particular industry/sector and examine the role of network ties on the foreign expansions of emerging markets. Second, we did not examine the specific entry modes adopted by the Chinese firms; future studies could examine the role of TMTs' network centrality and the mode of entry adopted by Chinese firms across both developed and emerging markets. Third, the performance consequences of Chinese firms expanding to foreign markets would deserve future investigation, and, indeed, the extent to which network ties improve these firms' performance. Fourth, future studies could pay more attention to the dark side of network ties and the

internationalization of Chinese and other emerging markets' firms. Fifth, there is scope to investigate the governance structure of these firms through differentiating fully state-owned firms from state affiliate or partially owned and their internationalization strategies in foreign markets. Finally, the study highlights common ground between comparative institutional theory and the theory of the global factory: this may serve as the basis for future theoretical synthesis.

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Table 1. Mean, standard deviations and correlations

Variables	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Probability of entry	0.48	0.12	1.00														
(2) TMT network centrality	0.13	0.13	0.02	1.00													
(3) State ownership	0.10	0.18	0.01	-0.01	1.00												
(4) TMT political ties	0.63	2.08	0.01	0.06	0.11	1.00											
(5) Firm size	19.72	2.33	0.34	0.09	0.14	0.06	1.00										
(6) Firm age	10.33	5.01	0.08	0.15	0.02	0.04	0.07	1.00									
(7) Return on asset	0.71	3.98	0.01	-0.01	0.05	-0.01	0.08	-0.02	1.00								
(8) Foreign ownership	0.02	0.08	0.01	0.05	-0.04	-0.03	0.00	0.07	0.01	1.00							
(9) Technology capability	0.95	1.45	-0.02	-0.03	0.15	0.06	0.29	0.06	0.00	-0.07	1.00						
(10) Past internationalization experience	0.01	0.13	-0.03	0.03	0.01	0.00	0.06	0.01	0.01	0.00	0.08	1.00					
(11) Host market's institutional level	0.34	0.94	-0.02	-0.01	0.01	0.01	0.02	-0.01	0.00	-0.01	0.04	0.03	1.00				
(12) Host market's economic level	6.24	4.48	-0.02	-0.26	0.06	0.02	0.00	-0.20	0.01	-0.07	0.36	-0.00	0.23	1.00			
(13) Host market's geographic distance	8.59	1.52	0.00	0.01	0.00	0.00	-0.01	0.00	0.00	0.00	-0.01	-0.01	0.00	0.20	1.00		
(14) Whether host market is contiguity	0.14	0.35	-0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.04	-0.30	-0.06	-0.14	1.00	
(15) Whether host market shares common language	0.07	0.25	-0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.08	0.15	0.08	-0.12	0.21	1.00

* Significance at the $p \leq 0.05$ level of confidence when the value $> |0.01|$.

Table 2. Survival analyses with piecewise exponential model predicting foreign expansion (multiple entries per firm)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Full sample				More developed markets				Less developed markets			
Firm size	0.71*** (15.08)	0.70*** (14.74)	0.72*** (15.10)	0.70*** (14.75)	0.73*** (13.82)	0.72*** (13.50)	0.74*** (13.84)	0.72*** (13.49)	1.36*** (34.68)	1.33*** (32.57)	1.37*** (34.71)	1.34*** (32.76)
Firm age	0.04*** (3.74)	0.04*** (3.71)	0.05*** (3.98)	0.05*** (3.98)	0.06*** (4.19)	0.06*** (4.15)	0.06*** (4.43)	0.06*** (4.42)	0.10*** (8.92)	0.10*** (8.86)	0.11*** (9.18)	0.11*** (9.10)
Return on asset	-1.25*** (-12.54)	-1.21*** (-11.84)	-1.24*** (-12.46)	-1.19*** (-11.43)	-1.14*** (-11.12)	-1.11*** (-10.38)	-1.13*** (-11.02)	-1.07*** (-9.93)	-3.18*** (-15.14)	-3.14*** (-14.80)	-3.24*** (-15.37)	-3.16*** (-14.90)
Foreign ownership	0.35 (0.96)	0.36 (0.98)	0.32 (0.87)	0.31 (0.86)	-0.36 (-0.68)	-0.35 (-0.67)	-0.40 (-0.76)	-0.41 (-0.77)	0.33 (0.85)	0.34 (0.90)	0.33 (0.85)	0.31 (0.79)
Technology capability	0.91*** (28.82)	0.90*** (28.50)	0.91*** (28.85)	0.91*** (28.57)	0.88*** (24.76)	0.87*** (24.51)	0.88*** (24.80)	0.87*** (24.56)	0.30*** (5.49)	0.30*** (5.46)	0.31*** (5.56)	0.29*** (5.38)
Past internationalization experience	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	1.18*** (4.54)	1.18*** (4.53)	1.16*** (4.47)	1.15*** (4.42)	0.30*** (16.05)	0.31*** (16.27)	0.30*** (15.77)	0.31*** (16.08)
Host market's institutional level	0.83*** (12.79)	0.83*** (12.78)	0.83*** (12.82)	0.83*** (12.81)	1.46*** (15.93)	1.46*** (15.91)	1.47*** (15.95)	1.46*** (15.94)	-0.63*** (-8.23)	-0.64*** (-8.23)	-0.63*** (-8.19)	-0.63*** (-8.20)
Host market's economic level	-0.16*** (-13.70)	-0.16*** (-13.59)	-0.16*** (-13.75)	-0.16*** (-13.60)	-0.12*** (-8.31)	-0.12*** (-8.26)	-0.12*** (-8.34)	-0.12*** (-8.27)	-0.45*** (-15.41)	-0.45*** (-15.19)	-0.45*** (-15.48)	-0.45*** (-15.25)
Host market's geographic distance	0.17** (3.27)	0.17** (3.26)	0.17** (3.29)	0.17** (3.27)	0.08 (1.45)	0.08 (1.45)	0.09 (1.45)	0.09 (1.45)	0.27*** (3.53)	0.27*** (3.48)	0.27*** (3.56)	0.27*** (3.50)
Whether host market is contiguity	1.42*** (10.23)	1.42*** (10.23)	1.42*** (10.25)	1.42*** (10.25)	1.86*** (10.24)	1.86*** (10.24)	1.87*** (10.26)	1.87*** (10.26)	0.38** (2.70)	0.39** (2.74)	0.38** (2.67)	0.39** (2.72)
Whether host market shares common language	1.65*** (12.21)	1.65*** (12.20)	1.65*** (12.23)	1.65*** (12.21)	1.36*** (7.87)	1.36*** (7.86)	1.36*** (7.88)	1.36*** (7.87)	2.87*** (19.51)	2.86*** (19.44)	2.88*** (19.54)	2.86*** (19.46)
TMT network centrality	5.97*** (17.39)	5.71*** (14.32)	6.13*** (17.76)	5.76*** (14.55)	5.58*** (14.07)	5.30*** (11.42)	5.76*** (14.45)	5.36*** (11.63)	4.90*** (8.62)	4.06*** (6.40)	5.18*** (8.96)	4.23*** (6.75)
State ownership	1.36*** (5.07)	0.81+ (1.65)	1.28*** (4.69)	0.34 (0.63)	1.64*** (5.64)	1.10* (2.11)	1.56*** (5.27)	0.62 (1.08)	1.20*** (3.72)	-2.22 (-1.49)	1.09*** (3.31)	4.17* (-2.45)
TMT political ties	0.22*** (10.39)	0.22*** (10.37)	0.30*** (8.29)	0.33*** (8.45)	0.21*** (9.14)	0.21*** (9.13)	0.30*** (7.59)	0.33*** (7.75)	0.22*** (8.17)	0.22*** (8.32)	0.39*** (7.11)	0.53*** (8.42)
TMT network centrality * State Ownership		3.11 (1.40)		5.13* (2.13)		3.00 (1.25)		5.09* (1.96)		14.88* (2.48)		22.52*** (3.30)
TMT network centrality * Political ties			-0.42* (-2.42)	-0.56** (-3.00)			-0.43* (-2.28)	-0.57** (-2.81)			-0.78** (-3.14)	-1.34*** (-4.86)
Constant	-29.29*** (-28.32)	-29.01*** (-27.72)	-29.49*** (-28.29)	-29.09*** (-27.77)	-30.45*** (-25.94)	-30.17*** (-25.38)	-30.68*** (-25.90)	-30.26*** (-25.40)	-41.46*** (-39.33)	-40.57*** (-37.10)	-41.83*** (-39.39)	-40.80*** (-37.38)
Year dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Log-likelihood	-1076.28	-1075.27	-1073.61	-1071.21	-716.68	-715.87	-714.29	-712.25	-502.53	-498.06	-499.06	-490.86
AIC	2180.55	2180.54	2177.22	2174.41	1463.35	1463.73	1460.58	1458.50	1035.07	1028.12	1030.12	1015.72
BIC	2325.66	2336.01	2332.70	2340.25	1618.83	1629.58	1626.42	1634.71	1190.63	1194.06	1196.06	1192.03
LR chi2	2375.39	2377.40	2380.72	2385.53	2173.43	2175.05	2178.21	2182.28	2796.66	2805.60	2803.60	2820.00
Prob. > chi2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes: N= 234,418; *** denotes 0.1% significance; ** denotes 1% significance; * denotes 5% significance..

Table 3. Survival analysis with piecewise exponential model predicting foreign expansion (single entry per firm)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Full sample				More developed markets				Less developed markets			
Firm size	1.21*** (15.08)	1.19*** (14.74)	1.22*** (15.10)	1.20*** (14.75)	1.04*** (10.64)	1.03*** (10.47)	1.05*** (10.68)	1.03*** (10.48)	1.84*** (13.31)	1.81*** (12.82)	1.86*** (13.25)	1.82*** (12.82)
Firm age	0.22*** (3.76)	0.21*** (3.73)	0.23*** (4.00)	0.23*** (4.00)	0.26*** (3.71)	0.26*** (3.69)	0.28*** (3.97)	0.28*** (3.98)	0.07 (0.67)	0.07 (0.66)	0.08 (0.75)	0.08 (0.76)
Return on asset	-1.61*** (-12.55)	-1.57*** (-11.86)	-1.60*** (-12.47)	-1.54*** (-11.44)	-1.43*** (-10.46)	-1.40*** (-9.89)	-1.42*** (-10.34)	-1.35*** (-9.43)	-3.00*** (-7.43)	-2.96*** (-7.24)	-3.02*** (-7.43)	-2.96*** (-7.20)
Foreign ownership	0.03 (0.99)	0.03 (1.01)	0.03 (0.90)	0.03 (0.89)	0.01 (0.16)	0.01 (0.17)	0.00 (0.07)	0.00 (0.06)	0.06 (1.40)	0.06 (1.44)	0.06 (1.36)	0.06 (1.39)
Technology capability	1.32*** (28.83)	1.31*** (28.50)	1.32*** (28.86)	1.31*** (28.57)	1.41*** (26.92)	1.41*** (26.62)	1.42*** (26.94)	1.41*** (26.66)	1.04*** (10.48)	1.03*** (10.38)	1.04*** (10.48)	1.03*** (10.37)
Past internationalization experience	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	-1.55 (-0.03)	-2.00 (-0.01)	-1.69 (-0.02)	-2.01 (-0.01)	-1.55 (-0.03)	-1.69 (-0.02)	-1.59 (-0.03)	-1.74 (-0.02)
Host market's institutional level	0.79*** (12.79)	0.79*** (12.78)	0.79*** (12.81)	0.79*** (12.81)	1.49*** (16.09)	1.49*** (16.07)	1.49*** (16.11)	1.49*** (16.09)	-0.57*** (-4.94)	-0.57*** (-4.92)	-0.57*** (-4.93)	-0.57*** (-4.91)
Host market's economic level	-0.73*** (-13.71)	-0.73*** (-13.59)	-0.73*** (-13.75)	-0.73*** (-13.61)	-0.48*** (-7.50)	-0.48*** (-7.45)	-0.49*** (-7.53)	-0.48*** (-7.46)	-1.74*** (-11.43)	-1.73*** (-11.28)	-1.75*** (-11.45)	-1.73*** (-11.29)
Host market's geographic distance	0.26** (3.27)	0.26** (3.25)	0.26** (3.28)	0.26** (3.26)	0.12 (1.26)	0.12 (1.26)	0.12 (1.27)	0.12 (1.27)	0.40* (2.55)	0.39* (2.53)	0.40* (2.56)	0.39* (2.53)
Whether host market is contiguity	0.49*** (10.21)	0.49*** (10.21)	0.49*** (10.22)	0.49*** (10.22)	0.68*** (10.35)	0.68*** (10.34)	0.68*** (10.37)	0.68*** (10.37)	0.04 (0.49)	0.04 (0.52)	0.04 (0.48)	0.04 (0.51)
Whether host market shares common language	0.41*** (12.21)	0.41*** (12.19)	0.41*** (12.23)	0.41*** (12.21)	0.33*** (7.29)	0.33*** (7.28)	0.33*** (7.30)	0.33*** (7.29)	0.67*** (10.38)	0.66*** (10.33)	0.67*** (10.39)	0.66*** (10.33)
TMT network centrality	5.97*** (17.40)	5.71*** (14.32)	5.86*** (17.28)	5.41*** (13.26)	5.55*** (14.08)	5.35*** (11.73)	5.42*** (13.96)	5.02*** (10.76)	5.83*** (6.93)	5.38*** (5.62)	5.73*** (6.86)	5.05*** (5.17)
State ownership	1.36*** (5.06)	0.81+ (1.65)	1.28*** (4.69)	0.34 (0.64)	1.52*** (5.05)	1.12* (2.14)	1.43*** (4.65)	0.63 (1.09)	0.46 (0.74)	-0.98 (-0.61)	0.39 (0.62)	-1.68 (-0.92)
TMT political ties	0.22*** (10.40)	0.22*** (10.38)	0.25*** (10.59)	0.26*** (10.72)	0.21*** (8.62)	0.21*** (8.60)	0.24*** (9.00)	0.25*** (9.11)	0.24*** (5.06)	0.24*** (5.16)	0.27*** (4.78)	0.30*** (4.87)
TMT network centrality * State ownership		3.10 (1.39)		5.12* (2.13)		2.29 (0.95)		4.46+ (1.70)		6.95 (1.02)		9.71 (1.28)
TMT network centrality * TMT political ties			-0.42* (-2.41)	-0.55** (-2.99)			-0.48* (-2.49)	-0.60** (-2.91)			-0.38 (-0.85)	-0.64 (-1.30)
Constant	-12.54*** (-140.02)	-12.57*** (-137.25)	-12.54*** (-139.91)	-12.58*** (-136.24)	-13.49*** (-4.78)	-13.53 (-0.87)	-13.50** (-2.85)	-13.55 (-0.85)	-14.91*** (-5.52)	-15.00** (-3.19)	-14.92*** (-4.72)	-15.04** (-2.73)
Year dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Industry dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Log-likelihood	-1078.00	-1077.00	-1075.36	-1072.97	-693.80	-693.35	-690.94	-689.42	-438.16	-437.57	-437.85	-436.87
AIC	2184.00	2184.00	2180.72	2177.94	1417.61	1418.69	1413.87	1412.83	906.31	907.13	907.69	907.73
BIC	2329.14	2339.51	2336.22	2343.81	1573.12	1584.57	1579.75	1589.08	1061.91	1073.10	1073.66	1084.08
LR chi2	2375.75	2377.75	2381.03	2385.82	2118.06	2118.98	2123.79	2126.83	635.04	636.22	635.66	637.62
Prob. > chi2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes: N= 238,294; *** denotes 0.1% significance; ** denotes 1% significance; * denotes 5% significance..

Figure 1. Illustration of Chinese TMTs network centrality in domestic market

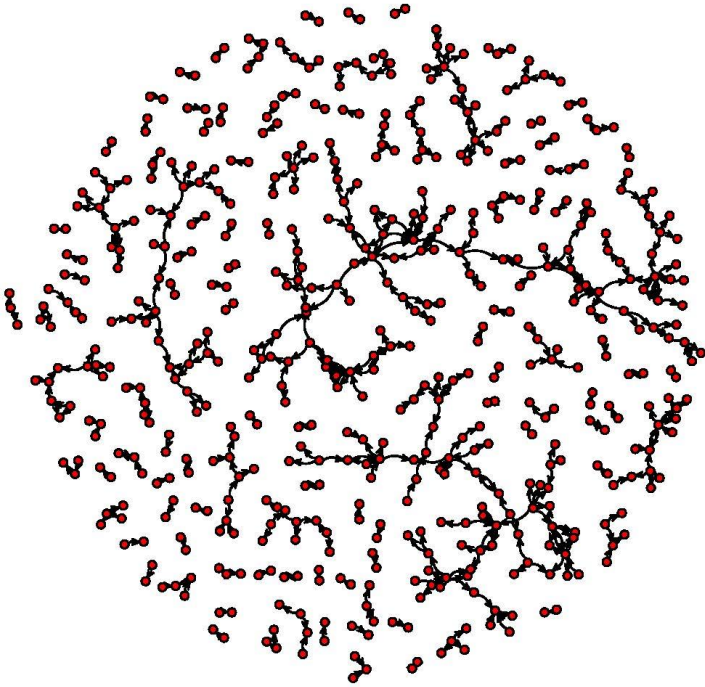


Figure 2. The moderating effect of state ownership on the relationship between TMT network centrality and foreign expansion

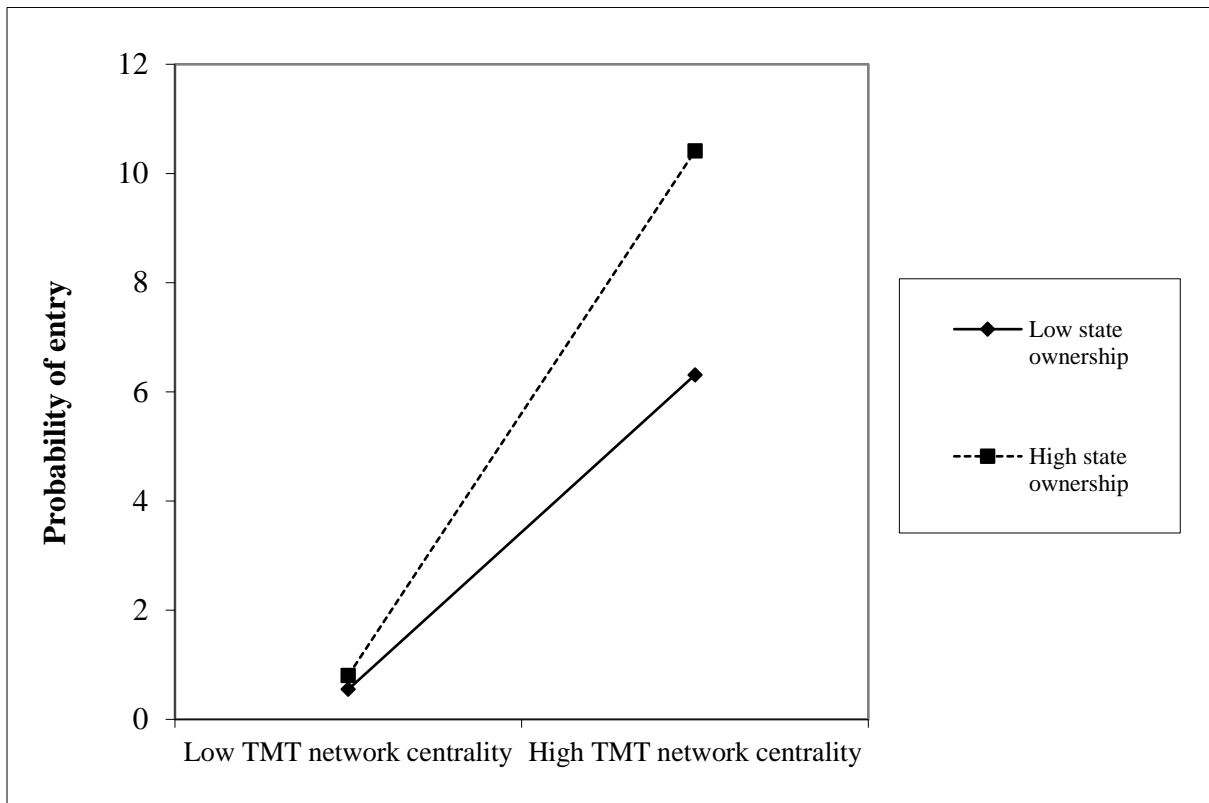


Figure 3. The moderating effect of state ownership on the relationship between TMT network centrality and foreign expansion (more developed market)

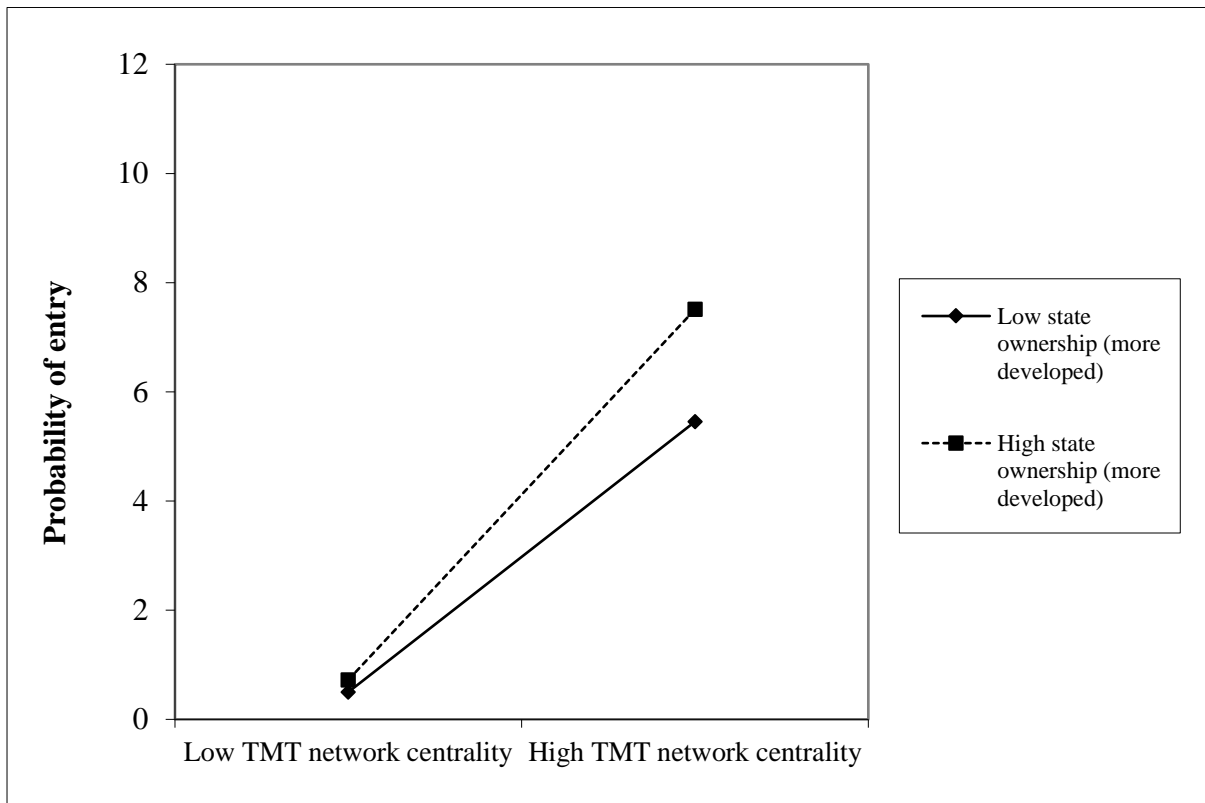


Figure 4. The moderating effect of state ownership on the relationship between TMT network centrality and foreign expansion (less developed market)

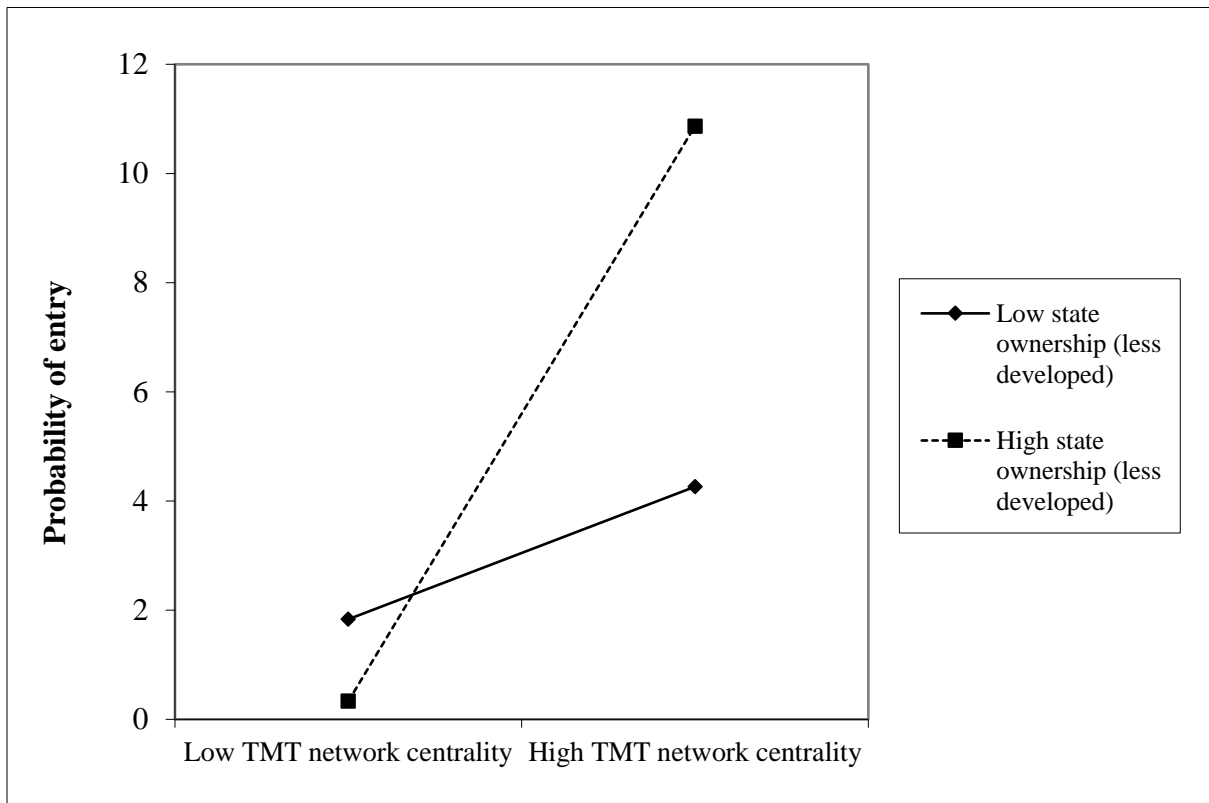


Figure 5. The moderating effect of TMT political ties on the relationship between TMT network centrality and foreign expansion

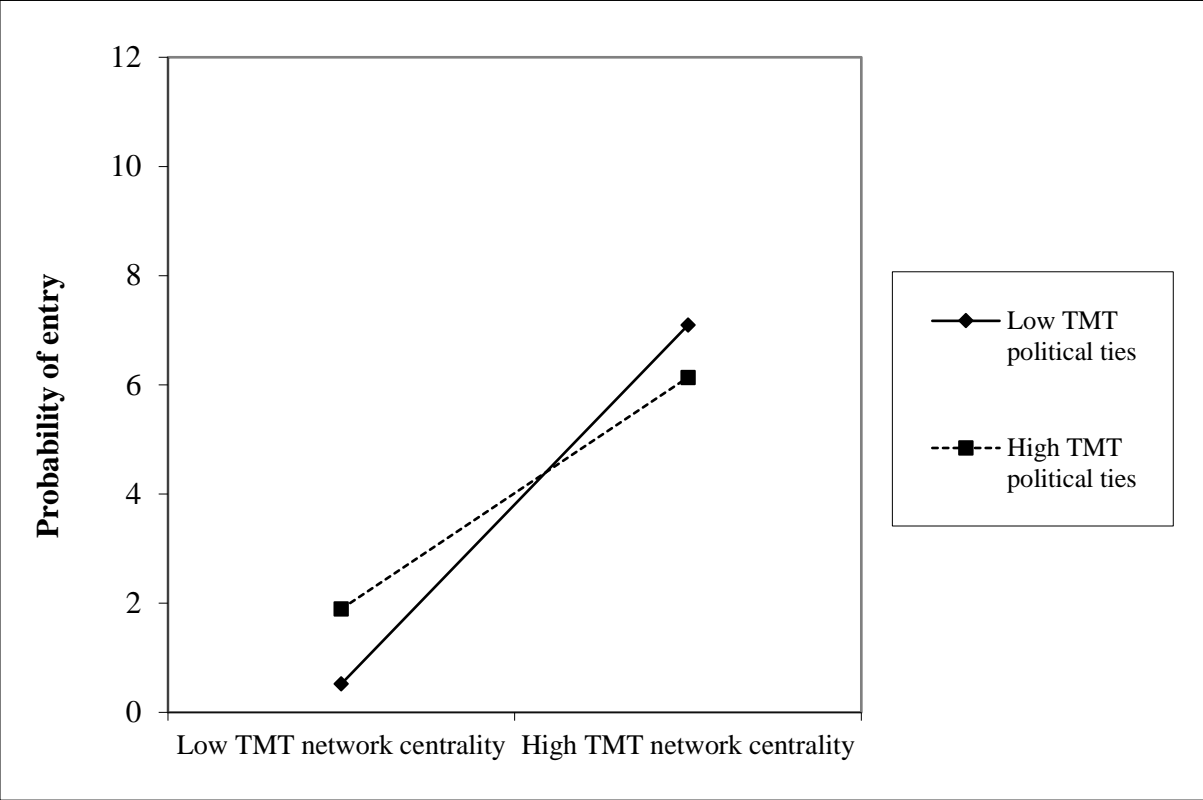


Figure 6. The moderating effect of TMT political ties on the relationship between TMT network centrality and foreign expansion (more developed market)

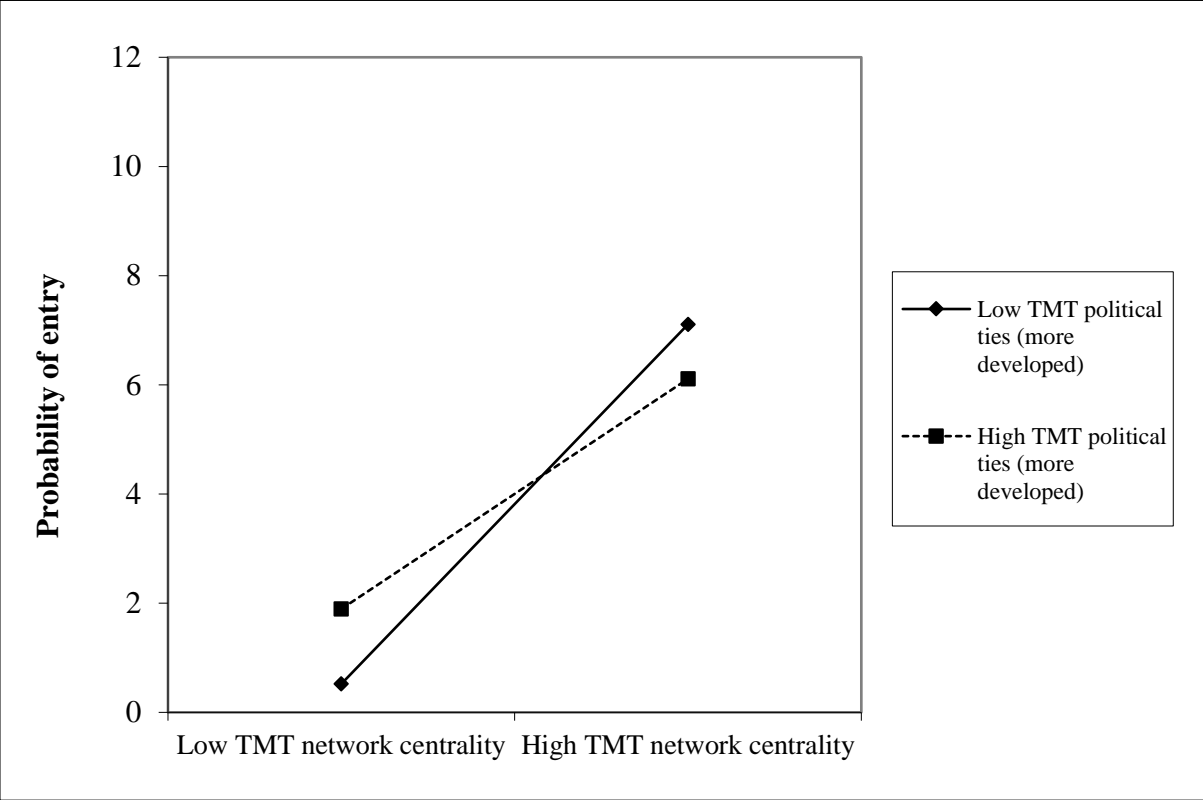


Figure 7. The moderating effect of TMT political ties on the relationship between TMT network centrality and foreign expansion (less developed market)

