Regional Environment for Attracting and Retaining Foreign Direct Investment: A Configurational Analysis of Chinese Provinces

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Abstract

This study examines the entry and exit of multinational enterprises (MNE) across regions in China. We explore the configurations of regional economic and institutional factors that attract and retain MNEs. We analyse the strategic entry and exit of MNEs in 31 Chinese provinces during 2001-2007. Our fuzzy-set qualitative comparative analysis (fsQCA) reveals multiple regional competitiveness profiles, as configurations of economic and institutional conditions, that are associated with a large scale of MNE entries and/or exits. In general, our findings suggest that it is the collective influence of Porter's (1990) diamond factors, rather than individual conditions, that contributes to the attractiveness of a regional market to foreign investors. Specifically, we find that while MNEs tend to exit regions with deficiencies in economic conditions, they are attracted to regions with favourable economic conditions and low state intervention, which also results in heightened market competition that results in restructuring of foreign investors.

Keywords: Regional competitiveness, foreign market entry strategy, multinational enterprises, China, state capitalism, competitiveness diamond

Introduction

A regional perspective of economic geography has contributed to the understanding of the geographical distribution of foreign direct investment (FDI) (Hong, 2007; Pelegrín & Bolancé, 2008; Tole & Koop, 2011) and its economic consequences within a given host country (Bajo-Rubio, Díaz-Mora & Díaz-Roldán, 2010; Wang et al., 2016). Studies have shown that, at the regional level, inward FDI can generate positive spillover on innovation (Smith & Thomas, 2017; Wang et al., 2016) and productivity (Bajo-Rubio et al., 2010), and can increase local employment (Cook & Fallon, 2016). Despite the important consequences of regional distribution of FDI, we do not fully understand its antecedents, namely, how regions within a country differ in their overall competitive profiles to attract and retain FDI.

In parallel with economic geography, strategic management research takes a firm-centric view to understand regional distribution of FDI by focusing on decision-making of multinational enterprises (MNEs). This research stream examines firm heterogeneities that drive MNEs' geographical (Dunning, 1998; Meyer & Nguyen, 2005), structural (Brouthers & Hennart, 2007; Hennart & Slangen, 2014), and temporal (Chang & Rhee, 2011) strategies of foreign market entry. It suggests that regional distribution of FDI is associated with MNEs' mimetic behaviour where they follow other MNEs' location choice within a host country, and with agglomeration benefits offered by specific regions in the host country (Delios, Gaur & Makino, 2008).

A disconnection appears between the economic geography and strategic management research on the regional distribution of FDI. While the strategic management stream follows an MNE-centric view, the bandwagon effect and agglomeration benefits (see Delios et al., 2008) require further regional and economic explanation. This is because first-mover MNEs do not make their FDI location choices randomly (Stallkamp et al., 2018); and the formation of agglomeration benefits needs to be enabled by favourable regional competitiveness

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profiles that attract a critical mass of foreign investors. Such a regional explanation of MNEs location decision is currently missing in the economic geography literature, where research has primarily focused on the consequences of the regional distribution of FDI but not its antecedents (e.g. Bajo-Rubio et al., 2010; Cook & Fallon, 2016; Smith & Thomas, 2017). A few exemptions have attempted to link MNE location choice and agglomeration to regional conditions within a host country (Halvorsen, 2012; Hong, 2007; Meyer & Nguyen, 2005; Stallcamp et al., 2018). However, they focused on isolating the most influential regional factors, rather than understanding the regional competitiveness profiles in a holistic manner. These efforts of identifying net effects of regional competitiveness are contradicted with established theories that the regional environments are multi-dimensional with interrelated economic and political conditions to shape and support economic activities (Davies & Ellis, 2000; Frost, Birkinshaw & Ensign, 2002; Porter 1995, 1997).

To address the lack of a holistic understanding of the nexus between economic geography and strategic management research on regional distribution of FDI, we undertake a configurational analysis to identify combinations of economic and political conditions that are associated with MNEs' entry and exit activities across subnational regions in China. We focus on the Chinese context not only because of its large market providing growth opportunities to foreign investors, but also the fact that as an emerging economy undergoing market reform, China demonstrates substantial economic, political and geographical diversity across its subnational regions (Banalieva, Eddleston & Zellweger, 2015; Li et al., 2018), leading to uneven distribution of FDI (Smith & Thomas, 2017; Wang et al., 2016). Therefore, our research question asks: *what are the regional configurations of economic and institutional conditions that are associated with high volume of MNEs' entry and exit across Chinese provinces?*

Theoretically, we guide our configurational analysis using the competitiveness diamond model of Porter (1990), which allows for the mapping of regional competitiveness profiles consisting of multiple dimension of economic and political conditions, such as factor conditions, demand conditions, market intermediary development, product market competition and role of government. Originally proposed for industry level analysis (Porter 1990, 1995), the diamond model has been widely used for assessing the competitive advantage of nations (Fainshmidt, Smith & Judge, 2016), and has been applied to the analysis of subnational regions (Davies & Ellis, 2000; Frost et al., 2002), cities (Healey & Dunham, 1994; Porter, 1995, 1997), and business clusters (Birkinshaw, Hood & Jonsson, 1998).

Methodologically, we adopt fuzzy-set qualitative comparative analysis (fsQCA) technique, which allows for "configurational classifications and judgements based on the simultaneous consideration of multiple interdependent factors" (Campbell, Sirmon & Schijven, 2016, p.169). Sitting at the middle ground between qualitative and quantitative methods, this methodology infers causality from set-theoretic relations rather than correlations (Fiss, 2011; Ragin, 2008). It allows us to implement an abductive process of mid-range theory development (Crilly, 2011), where we empirically identify and conceptually interpret the regional competitiveness profiles associated with MNEs' entry and exit activities. Utilizing this method, we analyse a unique dataset of FDI entries and exits in Chinese provinces during 2001-2007, a period for which data on FDI and institutional development at the provincial level in China were most consistently reported[1].

A Configurational View of Porter's Diamond Model

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[1] The major reasons not to include data after 2007 are avoiding the disturbance of Global Financial Crisis in 2008 and inconsistent reporting on Chinese Industrial Enterprises Database from the National Bureau of Statistics of China since 2008.

Following the theoretical tradition of industrial organization economics, Porter's (1990) diamond model brings together four dimensions of *economic conditions* – (1) factor conditions, (2) demand conditions, (3) related and support industries, and (4) firm strategy, structure, and rivalry – with the overarching influence of (5) *the role of government*, to articulate the competitiveness of a nation's industries. The diamond model has been widely adopted in economics and business research. In relation to FDI, it has been applied by researchers to study the location choice of MNEs (Asmussen, Pedersen & Dhanaraj, 2009). Studies find that certain configurations of economic and institutional conditions are attractive to foreign investors seeking location advantages in foreign markets (Brouthers & Brouthers, 1997; Frost et al., 2002). Given that the diamond model can be applied to the analysis of competitiveness at subnational levels (Birkinshaw et al., 1998; Davies & Ellis, 2000; Healey & Dunham, 1994; Porter, 1995, 1997), it is an appropriate theoretical basis to explore the competitiveness profiles associated with regional distribution of FDI.

Apart from a regional level focus, our application of the diamond model also emphasizes its configurational nature. Economic and institutional development is a path-dependent process (Jackson & Deeg, 2008). Therefore, the variations in the locational conditions of the diamond model are interdependent. They influence firm strategy interactively as configurations, rather than independently as additive effects. We argue that the diamond model demonstrates configurational properties of causal conjunction, equifinality, and asymmetry (Cui et al., 2017; Misangyi et al., 2017). Specifically, the notion of causal conjunction suggests that outcomes result from the interdependence of multiple conditions (Ragin, 2008). This is consistent with the observation by Brouthers and Brouthers (1997) that the diamond model is a mutually reinforcing system, in which the effect of one element is contingent on the state of the others. Equifinality refers to a situation where multiple causal pathways can lead to the same desired outcome (Kate & Kahn, 1978). This is

evidenced by Fainshmidt et al. (2016), which empirically identified differently-constructed competitiveness diamonds that are equally effective in inducing high national productivity. Causal asymmetry suggests that when forming causal configurations, individual elements may play different, or even inverse, roles in equifinal configurations (Misangyi et al., 2017; Ragin, 2008). This speaks to the possibility that individual elements of the diamond model are not always present in national competitiveness profiles. As Gresov and Drazin (1997) argue, national competitiveness does not necessarily require the presence of all diamond conditions at a high level; rather different combinations of diamond conditions can serve as structural alternatives.

We apply the diamond model in the Chinese context to study its regional competitiveness profiles associated with MNEs' entry and exit activities. Our goal is to develop mid-range theory using an abductive and set-theoretical approach, highlighting the Chinese context. Through applying the diamond model to the regional level, we aim to empirically identify the equifinal regional competitiveness profiles (as configurations of regional economic and institutional conditions in Chinese provinces) that are associated with a high volume of entry and exit of MNEs. Based on the Chinese context and through mapping these regional economic and institutional conditions to the diamond model, we have identified the contributing elements of regional competitiveness profiles as outlined below.

Economic Conditions

Factor conditions

Factor conditions reflect the abundance and quality of resource inputs for value-adding activities in an economy (Grant, 1991; Porter, 1990). At the regional level, factors of production include the physical, human, and financial resources available to firms in a given region, as well as the quality of infrastructure provided by the economy's transportation, communication, education, and health care systems (Fainshmidt et al., 2016). Access to

advanced factors of production, such as a scientific base and highly skilled labour, enables firms to enhance their competitive advantages (Porter, 1990; Elia & Santangelo, 2017). Chinese provinces differ in the development of their factor markets (Fan, Wang & Zhu, 2007). Well-developed regional factor markets allow MNEs to acquire local resources necessary for their operations and to combine local resources with MNEs' internal resources to create competitive resource bundles (Brouthers & Hennar, 2007). A well-developed regional factor market is an important locational advantage for FDI, especially for MNEs with efficiency-seeking or strategic-asset-seeking objectives.

Demand conditions

Demand conditions pertain to the size, growth, and sophistication of the demand side of an economy (Brouthers & Brouthers, 1997; Porter, 1990). Unlike factor conditions influencing a firms' resource strengths, demand conditions reflect on key success factors within the market (Grant, 1991). Porter (1990) asserts that demand conditions can help build competitive advantages because sophisticated and demanding buyers provide a window into advanced customer needs, which pressure MNEs to meet high standards, and to keep improving and innovating in order to upgrade their technology know-how, and product and service quality. Yet demand conditions can be sophisticated even in geographically proximal subnational regions. Due to provincial differences in taxation, market protection policies, and availability and quality of logistics services, MNEs in China do not have equal market access to all regions in the country, and have to deal with regional market barriers. Similarly, prior research finds regional demand conditions are central to foreign market entry strategies for MNEs with market-seeking objectives (Rugman, Oh & Lim, 2012; Rugman & Verbeke, 1993).

Market intermediary development (linking firms from related and supporting industries)

The diamond model emphasizes the presence of related and supporting industries as a contributing factor to national competitiveness (Porter, 1990). Knowledge and efficiency spillover from related and supporting industries can help enhance the competitive advantages of firms (Grant, 1991; Porter, 1990; Rugman et al., 2012). From a regional perspective, especially regions in an emerging economy context, access to such spillover is enabled by market intermediaries, who provide services (e.g. commercial, financial, and legal) that connect market participants across industries (Khanna & Palepu, 2006). Such intermediary services provide critical support to firms lacking location-specific knowledge and networks, such as new foreign entrants, to navigate the regional market environment. They play an important role as market-supporting institutions that sustain an efficient market economy (Khanna & Palepu, 2006). Well-developed market intermediaries help MNEs mitigate their liabilities of foreignness when entering, and subsequently operating in, unfamiliar foreign markets. However, the development of such intermediary varies largely across Chinese provinces (Fan et al., 2007).

Product market competition (affecting firm strategy, structure, and rivalry)

Another dimension of the competitiveness diamond concerns "the domestic rivalry of firms and the conditions governing how companies are created, organized and managed" (Porter, 1990:71; Rugman & Verbeke, 1993). Porter (1990) observed that competition in the downstream product market drives firms to develop more effective strategies and to update productive capabilities to remain competitive. At the regional level, market competition can be suppressed by local protectionism that hinders the development of competitive advantages of businesses. In response to this challenge, many emerging economies engage in a marketization process to shift the inter-firm relations and economic incentives of business activities (Banalieva et al., 2015). A market environment governed by competition principles, as opposed to regulatory mechanisms, tends to value competitive resources more than local

relational assets (Peng, 2003), and therefore, is more favourable for new foreign entrants that possesses competitive resources vis-à-vis local incumbents that rely on relational assets. In the Chinese context, the marketization process aiming at promoting market-based competition develops at different pace across provinces (Banalieva et al., 2015).

Role of Government

Government plays an important role in transmitting and amplifying the influence of other diamond dimensions on national competitiveness (Porter, 1990). By setting policies and operating state-owned enterprises (SOE), governments can intervene in the economy and incentivise firms to invest in competitive resources and capabilities, stimulate demand for advanced products, focus on specialised factor creation, and stimulate local rivalry (Porter, 1990; Rugman et al., 2012; Xing, Liu & Lattemann, 2019). In the Chinese context, we capture the role of provincial government in China both as a market regulator and a market participant.

Market-intervening policies (provincial government as market regulator)

Government policy is an important market coordination mechanism, which may supplement or substitute for market coordination (Hall & Soskice, 2001). In the Chinese context, as the market-supporting institutions are yet to be fully developed, the role of government as market regulator is particularly significant (Nee & Opper, 2007). Through policies that regulate market activities and industry development, local governments can enhance the attractiveness of regional markets to MNEs by reducing regulatory barriers for MNEs to enter local markets, reducing tax burdens to stimulate investments and growth, and promoting the rule of law (as opposed to administrative intervention) to protect property rights and market competition (cf. Mingo, Junkunc & Morales, 2018). Excessive regulatory intervention and tax burdens can, however, deter MNEs from entering regional markets due to increased entry costs and post-entry operational uncertainties (Stephan, Uhlaner, & Stride, 2015). Following

the decentralization of economic policy in China, provincial governments in China play an important role in regulating market activities and industry development at the regional level (Li et al., 2014). However, they also differ in the degree to which they use administrative intervention (as opposed to a general regulatory framework based on the rule of law) to regulate local economic activities (Fan et al., 2007).

Dominance of state economy (provincial government as market participant)

Governments can coordinate the market by participating in the market through SOEs, and utilising SOEs to guide the development of industries (Musacchio, Lazzarini & Aguilera, 2015). Government as a market participant can have varied impacts on the economy. On the one hand, research has shown that the early industrial development of many economies has often been associated with massive state involvement through SOEs (Amsden, 2001). SOEs can be effective vehicles for the state to support the market through deploying complementary resources for industry development, and through conducting investments with high social and economic externalities (Aghion, 2011). On the other hand, SOEs may prioritise political and social objectives over market-based objectives. Compared to private firms, SOEs also tend to suffer from inefficiencies and governance problems (Musacchio et al., 2015). As such, a dominant state economy can surpress market-based competition, distort market signals, and compromise the competitiveness of industries. China's industrial development and economic growth has been associated with deep state involvement through SOEs (Nee & Opper, 2007). Compared to private firms, SOEs tend to suffer from inefficiencies and governance problems (Musacchio et al., 2015). The on-going privatisation effort by the Chinese government has led to varying degrees of SOE dominance across Chinese provinces (Li et al., 2014).

Methods

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The objective of this study is to reveal regional competitiveness profiles associated with regional FDI distribution in China. To achieve this, we use an abductive research design where we guide our empirical exploration with the diamond model applied at the regional level and interpret our findings within the empirical boundary of China. Analytically, we followed a set-theoretic approach utilizing the technique of fsQCA. The technique is particularly suited for exploring both conjunctural causation (i.e. combining various diamond- and/or government-related conditions to form regional competitiveness profiles) and the equifinality nature (i.e. multiple causal paths) of such regional profiles associated with a high volume of MNEs entry and exit activities (cf. Campbell et al., 2016; Cui et al., 2017). However, like any analytical technique, fsQCA has potential limitations. Typical limitations includes, but not limited to, a) the limited diversity issue (that is, the number of causal conditions selected is subject to the sample size in order to fully discover all logically possible causal combinations); b) the black box concern – referring to the ambiguous explanation on how these selected causal combinations lead to the outcome, especially when researchers lack in-depth knowledge of the analysed phenomenon; and c) the temporality problem, that is, the technique is hard to incorporate temporally contingent determinants (cf. De Meur, Rihoux, & Yamasaki, 2009; Ragin, 2008).

Sample and Data

With the accession to the World Trade Organization (WTO) from 2001, China has made its domestic market unprecedentedly open to foreign investors and has been one of the top destinations of the world's FDI. China also has significant subnational diversity in economic and institutional environments which are especially apparent across its provinces (Fan et al., 2007; Shi, Sun & Peng, 2012; Yan et al, 2018). This regional heterogeneity makes China an ideal empirical context to analyse regional competitiveness profiles that may lead to uneven regional distribution of FDI. By focusing on regional heterogeneities in China, we adopt a

context-specific approach to theory building. In contrast to generalization, contextualization, as an equally effective approach for theory building, means linking observations to a set of relevant facts, actions, events, or ideas, which adds one more level to theorization by accounting for the effect of contextual characteristics on the behaviour of organizations (Tsui, 2007).

We gathered provincial records of the entry and exit of MNEs in China between 2001 and 2007, to avoid the disturbance of the GFC in 2008, when there were likely to be confounding effects on the FDI entry and exit decisions of MNEs due to their home country or global operational conditions, rather the host subnational conditions. We constructed a unique dataset drawing on multiple archival sources. We obtained data regarding all foreign-invested enterprises in mainland Chinese provinces from Chinese Industrial Enterprises Database in the National Bureau of Statistics of China (NBSC). Based on this dataset we coded the scale (i.e. capital amount of investment or divestment) of the entry and exit of MNEs aggregated at the provincial level. We also sourced data on provincial level demand conditions from the NBSC, and used the marketization indices of Chinese provinces, also known as the National Economic Research Institute (NERI) index (Fan et al., 2007), which has been frequently utilized to study regional differences across Chinese provinces (Banalieva et al., 2015; Li et al, 2018; Shi et al., 2012). After incorporating a one-year lag for fsQCA, our sample includes a total of 186 province-year observations.

Calibration

Calibration is one of the key advantages of fsQCA. While not all variations are deemed equally important for variables (Ragin, 2008), fuzzy-set analysis can utilize external and internal criteria to calibrate crucial variations for each condition. Through a "qualitative assessment of the degree to which cases with given scores on an interval scale are members of the target set" (Fiss, 2011; Ragin, 2008: 85), we adopted a three-value fuzzy-set rule with

distribution-adjusted anchors to the outcome variables and all the causal conditions (Cui et al., 2017; Fiss, 2011; Ragin, 2008). Specifically, we coded membership as fully-out for a value below the lower quartile, and fully-in for a value above the upper quartile. The crossover point was set as the middle quartile (median) of the targeted variable/condition in our sample. Table 1 summarizes the measurements and calibration anchors for all variables of this study.

[Insert Table 1 about here]

Results

Results from fsQCA are reported in Tables 2. None of the individual conditions exceeded the consistency threshold of 0.90 as a necessary condition (see Appendix A for details). Tables 2 presents the results of the configurational solutions associated with a large scale of MNE entry and a large scale of MNE exit respectively. They are presented in the style recommended by Ragin (2008) and Fiss (2011), where black circles (●) indicate the presence of a condition and circled crosses (⊗) indicate its absence. Large circles indicate core conditions while small ones indicate peripheral conditions. Blank spaces indicate ambiguous situations in which the corresponding causal condition may be either present or absent, and therefore plays no significant role in the configurational solution.

[Insert Tables 2 about here]

We adopted a frequency cut-off at 2, and a consistency threshold of 0.911 for the MNE entry solutions (left side of Table 2) and a threshold of 0.828 for the MNE exit solutions (right side of Table 2). These choices were based on two analytical criteria. First, we conducted a sufficiency analysis using Ragin's (2008) truth table algorithm to identify attribute combinations consistently linked to an outcome above the acceptable consistency

benchmark of 0.80 (Ragin, 2008). Second, we used the Proportional Reduction in Inconsistency (PRI) value as a measure of fit to compute the degree to which a solution was sufficient for the outcome, rather than negating it (Ragin, 2008). In line with Chen, Li, and Fan (2018), we also adopted a more stringent PRI cut-off score of 0.70 to rule out simultaneous subset relations of attribute combinations in both the outcome and its absence.

We obtained a coverage of 0.66 on the MNE entry solutions and a coverage of 0.67 on the MNE exit solutions. These overall coverage levels indicate the empirical importance of the solution as a whole (Ragin, 2008). When measuring how well a solution corresponds with data, previous studies suggest an acceptable consistency of 0.80 (Chen et al., 2018; Cui et al., 2017; Fiss, 2011). In this study, our individual and overall solutions measured well above the required consistency levels (that is, 0.91 for MNE entry solutions and 0.88 for MNE exit solutions).

Configurational Solutions

Our analyses revealed three first-order configurational solutions leading to a large scale of MNE entries into a region in a given year. They not only show the presence of both core and peripheral conditions but also neutral permutations of configurations (e.g., co-existence of 2a and 2b for Solution 2). The presence of these multiple overall solutions thus points to a situation of first-order, or across-type, equifinality of solutions (Fiss, 2011). The neutral permutations within Solution 2 (2a and 2b) further illustrate the existence of second-order, or within-type, equifinality. We found four first-order configurational solutions (Solutions 4-7) leading to a large scale of MNE exits. Similar to the findings on MNE entry solutions, they demonstrate first- and second-order equifinality.

On the MNE entry results, as shown on the left side of Table 2, solution 1 indicates that the absence of market-intervening policy, the presence of a highly competitive product market, and strong demand condition are core conditions for a regional market in attracting a

large scale of MNE entries. A well-developed factor market and the absence of state economy domination are peripheral conditions. Solutions 2a and 2b report that regional markets which are not dominated by state economy and have strong market intermediaries and demand conditions, when complemented by either favourable factor conditions and/or product market competition, can attract a large scale of MNE entries. Solution 3 represents another regional market configuration that is associated with a large scale of MNE entries, which combines strong factor and demand conditions, as well as product market competition as core conditions, with the absence of state economy domination and the presence of well-developed market intermediaries as peripheral conditions.

In the MNE exit results, as shown on the right side of Table 2, solution 4 demonstrates that a regional market that receives substantial government intervention through policy, and lacks product market competition and strong demand conditions, is associated with a large scale of MNE exits, despite having well-developed market intermediaries and factor conditions in a regional economy not dominated by the public sector. Solutions 5a and 5b show that in regions lacking well-developed market intermediaries, even when there is no substantial government intervention and the demand conditions are favourable, MNEs can exit in large scale. Solutions 6 indicates that with the absence of a dominant state economy and government intervention of the market through policies, as well as the presence of strong factor and demand conditions and a competitive factor market, a large scale of MNE exits can still happen. This situation is, however, relatively rare as evidenced by the low value of unique coverage of this configuration. Finally, Solutions 7a and 7b show that, with favourable factor and demand conditions and well-developed market intermediaries in place as core conditions, regions can see a large scale of MNE exits. It is worth noting that solutions 6, 7a, and 7b are qualitatively indifferent from solutions 1, 3, and 2a respectively, which indicates that certain types of regional competitiveness profiles can induce a higher

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rate of FDI restructuring, that is, they have a high volume of MNE entry and exit simultaneously. These results remained consistent through a series of robustness tests (detailed in Appendix B).

Discussion

The Role of Government in Attracting FDI

Our findings reveal the role of government in building regional competitiveness for attracting FDI. Should the government complement or substitute for the market mechanisms in economic coordination? The original diamond model (Porter, 1990) recognizes the market-complementing role of government in supporting competitive industries. In Porter's earlier argument, a government's role should be as a "catalyst and challenger… indirect rather than direct" (1990:84). Does this argument hold true in different economic contexts? Our findings show that the government's role in regional competitiveness profiles is not monotonic. There are two types of local government that can make their regions attractive to foreign investors.

The first type is demonstrated in solutions 1, 2a, and 2b. They show that both the market-intervening policies and the dominance of state economy are absent from regions that are attractive to new MNE entrants. When examining the economic conditions of these configurational solutions, we find that not all four economic conditions need to be present simultaneously. In fact, none of these solutions has a fully featured economic profile. Instead, the presence of demand conditions together with two of the other three economic conditions are required. It suggests that foreign investors are attracted to a regional market with a non-intervening and non-dominant local government, when the local economic conditions are largely favourable but not necessarily strong on all four conditions. Based on the commonalities across solutions 1, 2a, and 2b, we propose:

Proposition 1: When a region in China is free from local government's market-intervening policies and a dominant state economy while featuring strong demand conditions, the region will see a large scale of MNE entries.

The second type of local government differs with the first type in that, the absence of local government's market-intervening policies is not a required condition. As shown in solution 3, when a region features strong conditions across all four economic dimensions of the diamond model, and the absence of SOE dominance in the regional economy, it will attract a large scale of MNE entries, who are indifferent to the level of local government's market-intervening policies. Gresov and Drazin (1997) put forth that certain elements of the diamond model can serve as structural alternatives to each other. Comparing solution 3 with solutions 1, 2a, and 2b, our findings suggest that a complete profile of economic conditions serves as a structural alternative to the absence of government-intervening policies. Accordingly, based on solution 3, we propose:

Proposition 2: When a region in China features all four economic conditions and is not dominated by state economy, the region will see a large scale of MNE entries.

Regional Economic Deficiencies and Foreign Divestment

A strategic option view suggests that MNEs make foreign divestment decisions as they assess their strategic needs (Vidal & Mitchell, 2015) and redistribute their assets among various foreign investment options (Boddewyn, 1979). MNEs may exit a foreign market when their assessment of the local market environment suggests a misfit between the external conditions and their strategic choices, such as their resource commitments (Procher & Engel, 2018). In our findings, solutions 4, 5a, and 5b (see Table 2) present scenarios of large scale of MNE exits. A common configurational trait of these solutions, which is not included in all other solutions, is the absence of one or more regional economic condition. Jointly, these three solutions suggest that any of the economic dimensions of the competitiveness diamond can

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be an important strategic consideration for MNEs to adjust their commitment to foreign markets. In terms of more specific configurational features that trigger MNE exit, solutions 4 and 5a both show absence of two economic conditions. Solution 5b also fits a scenario of two absences, although the absence of factor condition is not a necessary condition. Hence, with a conservative interpretation of solutions 4, 5a, and 5b, while not treat them as exhaustive possibilities of foreign divestment, we posit:

Proposition 3: When a region in China lacks at least two economic conditions, the region will see a large scale of MNE exits.

FDI Restructuring

We find that some configurations (solutions 1, 3, and 2a) associated with a large scale of MNE entries (e.g. solutions 1, 3, and 2a) are also associated with a large scale of MNE exits (e.g. solutions 6, 7a, and 7b). This suggests that subnational regions with such economic and institutional conditions are conducive to a high rate of FDI restructuring, where MNEs enter and exit the regional market at a high volume simultaneously. This FDI restructuring implies that existing foreign investors are competed out and replaced by new ones, potentially due to two reasons. First, a fast follower may have advantages over first movers (Shankar, Carpenter & Krishnamurthi, 1998), especially in an unfamiliar foreign market environment where the early experimentation costs can be high. Second, changes in local economic and institutional environments may render existing advantages obsolete, thus providing opportunities for new entrants to the market. In our context, the Chinese government has over the years updated its regulatory and incentive policies for inward FDI, shifting its preference away from FDI into labour-intensive sectors towards more value-adding sectors (Wang et al., 2016). New entrants can target such policy incentives without incurring the high switching costs that existing MNEs may face due to having to amend their established operations and business networks.

Solution 7a (equivalent to solution 3 as an intermediary solution) shows that with the presence of all four economic conditions and the absence of a dominant state economy, a region will see a large scale of MNE exits. Combining solution 7a with solution 3, we argue that in a munificent regional economy, both business growth and market resources are abundant, which weakens the relative advantages of first movers, but allows foreign entrants to gradually overtake existing MNEs and domestic firms. Accordingly, we propose:

Proposition 4: When a region in China features all four economic conditions and is not dominated by state economy, the region will see a high rate of restructuring of foreign investors, namely a large scale of concurrent MNE entries and exits.

Solutions 6 and 7b (equivalent to solutions 1 and 3 respectively as an intermediary solution) represent a regional economy that is coordinated by market mechanisms rather than the government, evidenced by the absence of market-intervening policies and dominance of state economy. The prevalence of market mechanisms as opposed to state coordination, together with strong factor and demand conditions in the economy, can create a dynamic and highly competitive business environment. Merging evidence from solutions 1, 3, 6, and 7b, we argue that in such a business environment, any competitive advantage will become less sustainable and more vulnerable to competition from new entrants who are more adaptive to change due to less sunk costs. This will result in a large scale of MNE exits as existing foreign investors are competed out and replaced by new entrants. Accordingly, we propose:

Proposition 5: When a region in China is free from local government's market-intervening policies and a dominant state economy while featuring strong factor and demand conditions, the region will see a high rate of restructuring of foreign investors, namely a large scale of concurrent MNE entries and exits.

Theoretical Contributions

This study contributes new insights to the literature of economic geography, international business strategies, and FDI in China. First, this study bridges the dialogue between the economic geography and the strategic management of MNEs. While economic geography scholars are interested in how the national and subnational factors affect the formation of competitive advantages, strategic management scholars are concerned with strategic responses to environmental dynamics at the firm and/or industry level. There is a lack of studies that link these parallel dialogues by explicitly associating regional competitiveness with firm strategic behaviours (Knight & Wójcik, 2017; Wójcik, Knight & Pažitka, 2018). Our study addresses this gap by revealing that the configurations of regional competitiveness profiles are conducive to large scale entry and exit activities of MNEs across subnational regions in China. We trace explicitly the entry and exit activities of MNEs into regions, which differs from prior economic geography studies that capture regional distribution of FDI by looking at the capital volume of FDI flow that lumps together, and thus does not distinguish, a range of MNE activities such as new entry, reinvestment, partial divestment, and exit (Hong, 2007; Pelegrín & Bolancé, 2008). We examine the entry and exit activities of MNEs separately because they are the strategic responses of MNEs to different environmental cues (Regnér & Edman, 2014). Although we aggregate these MNE strategic activities at the regional level, it is nonetheless a critical step forward to bridge economic geography literature and strategic management literature.

Second, this study offers a configurational view of Porter's diamond model and applies it to a subnational level of competitiveness analysis. Porter (1990), in his seminal work, argues that four economic conditions together with the role of government, graphically depicted as a diamond, collectively determine national competitiveness. While the model has been widely adopted across fields of research in economics (e.g. Gupta & Subramanian, 2008) and business strategy (e.g. Asmussen et al., 2009; Frost et al., 2002), and across

different levels of analysis including the subnational level (e.g. Davies & Ellis, 2000; Porter, 1995, 1997), the configurational nature of the diamond model has not been sufficiently recognized in these applications. One exemption is Fainshmidt et al. (2016) which applied the diamond model with a configurational approach. We take one step further to explicitly discuss the configurational properties of the diamond model in terms of causal conjunction, equifinality, and asymmetry. We then empirically demonstrate these configurational properties by applying the diamond model to reveal the regional competitiveness profiles associated with large scales of MNE entries and exits across Chinese provinces.

Third, drawing on the findings of fsQCA with province-year FDI data of China, we develop mid-range theory of regional FDI distribution in the Chinese context. This context-specific approach to theory building echoes the call by scholars for greater contextualization in social science research (e.g. Bamberger, 2008; Barkema et al., 2015; Tsui, 2007). Tsui (2017) points out that "deep contextualization is necessary for both theory development and for the meaningful application of existing theory to novel contexts" (Tsui, 2007: 1357). Bamberger (2008: 840) suggests that the notion of context as a "sensitizing device" is to pay more attention to the potential situational and temporal boundary conditions of a societal observation. In this study, the Chinese context provides deeper insights on the role of government in regional competitiveness building. Specifically, we extend the diamond model by drawing from the state capitalism literature (e.g. Li et al., 2014), and distinguish two direct roles of the government, market regulator and market participant, in influencing regional competitiveness in the Chinese business context. Our findings offer empirical basis to develop theoretical propositions focusing on the role of government (propositions 1 and 2), economic conditions leading to foreign investment (proposition 3), and FDI restructuring (propositions 4 and 5).

Practical Implications

The configurational view of regional competitiveness offers policy and managerial implications. For policy-makers, such as regional governments, our findings suggest that a dominant state economy is detrimental to inward FDI. Accordingly, local governments can take purposive actions to promote privatization if attracting FDI is preferred (cf. Yan et al., 2018). Moreover, regional governments should develop regional economies in a holistic manner, as opposed to selectively focusing on certain diamond conditions. For example, our findings show that while none of the economic conditions is independently sufficient for regional competitiveness, clear deficiencies in any of these conditions can trigger a large scale of MNE exits. Additionally, by applying the diamond model to the regional level, we provide a practical lens through which MNEs can interpret regional patterns of MNE entry and exit activities, and attribute such patterns to underlying regional competitiveness. This will assist the strategic decision-makers of MNEs make investment and divestment decisions based on a holistic assessment of the regional institutional and economic conditions and to break free from isomorphic pressures (i.e. imitating others).

Limitations

The context of this study necessarily induces limitations on the generalizability of its findings. Future studies may address these limitations by expanding the research context in three ways. First is to expand this research to other emerging economies. The unique institutional and economic environment in China suggests that our findings do not necessarily generalize to other emerging economies. For example, in addition to differences in political system, the evolving role of state in economic reforms and the significant power of provincial government in local economic management are unique to the developmental trajectory of the Chinese economy, which is not mirrored by other large emerging economies such as India and Brazil. Second is to explore other levels of analysis with a regional focus. We analyse regional competitiveness profiles along the provincial boundary in China. However, some

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Chinese provinces (e.g. Inner Mongolia) traverse both economically well-developed and less-developed regions, and therefore have significant within-province economic development inequality. Within many provinces, some cities and even counties enjoy specially designed and favourable economic policies and institutional arrangements (cf. Yan et al., 2018). Future research can explore other levels of analysis when investigating regional distribution of FDI. Lastly, related to the aforementioned limitations of the fsQCA method, although both the limited diversity issue and black box problem have been addressed at our research design stage, our efforts to incorporate temporal dimension is rather limited. While we truncate the data by 2007 to avoid confounding effect of the GFC on MNEs' FDI activities, this also limits our longitudinal coverage, which does not capture more recent development of regional competitiveness conditions in Chinese provinces, nor for recent regulatory changes (e.g. Xing et al., 2019). Future research can address this limitation by either investigating configurational solutions over a longer time period (e.g. from when Chinese economic reforms started in 1978) or by focussing on a later time period (e.g. after the GFC in 2008) when reliable data become available.

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Table 1. Calibration of sets

Type	Variable	Measurement & Data Source	Calibration Anchors
Outcomes	Scale of MNE entry	Total investment amounts, in billion RMB (renminbi), by new MNE entrants for each province-year observation; data sourced from the Department of Industry in the National Bureau of Statistics of China	96.85, 28.75, 8.49
	Scale of MNE exit	Total divestment amounts, in billion RMB, by exiting MNEs for each province-year observation. Data source: same as above	57.84, 15.86, 4.81
Economic Conditions	Factor conditions	A 4-item (development of the financial market, degree of absorption of foreign investment, liquidity of the labour force, and transactions of the local technology market weighted by number of technicians) dimension adopted from the NERI Index (Fan et al., 2007). A high value indicated a highly-developed factor condition of a province in a given year.	6.14, 3.27, 2.37
	Demand conditions	PCA combined value based on four market demand indicators (population, final consumption expenditure, GDP growth rate, & GDP per capita) from the database of the National Bureau of Statistics of China.	5.84, 3.98, 2.62
	Market intermediary development	A 2-item (development of market intermediaries, protection of property rights) dimension adopted from the NERI Index (Fan et al., 2007). A high value indicates highly-developed market intermediaries within a province in a given year.	5.22, 3.9, 3.09,
	Product market competition	A 2-item (percentage of products with market-regulated prices, degree of local protectionism) dimension adopted from the NERI Index (Fan et al., 2007). A high value indicates a highly-competitive produce market within a province in a given year.	8.93, 7.72, 6.08,
Role of Government	Market-intervening policies	A 5-item (proportion of economic resources allocated through the market, tax and charge burdens on farmers, government administrative intervention in enterprises, the nontax burden on enterprises, and the size of government) dimension adopted from the NERI Index (Fan et al., 2007). These indicators were reverse-coded in the NERI Indices so that a high value represents low government intervention. Thus we reversed the anchor points during the calibration so that "fully-in" set membership represents a high degree of market-intervening policies by the provincial government of a province in a given year.	8.46, 7.24, 6.07
	Dominance of state economy	A 3-item (proportion of the non-state sector in gross industrial output, proportion of the non-state sector in national investment in fixed assets, and proportion of the non-state sector in number of employed persons) dimension adopted from the NERI Index (Fan et al., 2007). Same reason for reverse-calibration as above.	8.12, 5.89, 3.84

Table 2. Configurations for Scale of MNE Entry and Exit [a]

Configuration	Scale of MNE Entry				Scale of MNE Exit					
	1	2a	2b	3	4	5a	5b	6	7a	7b
Economic Conditions										
Factor conditions	●	●		●	•	⊗		●	●	●
Demand conditions	●	●	●	●	⊗	●	●	●	●	●
Market intermediary development		●	●	•	●	⊗	⊗		●	●
Product market competition	●		•	●	⊗		•	•	•	
Role of Government										
Market-intervening policies	⊗	⊗	⊗		•	⊗	⊗	⊗		⊗
Dominance of state economy	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Consistency	0.96	0.95	0.93	0.97	0.83	0.83	0.86	0.91	0.90	0.89
Raw coverage	0.54	0.57	0.56	0.57	0.08	0.14	0.14	0.51	0.53	0.53
Unique coverage	0.01	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.03	0.04
Overall solution consistency	0.92				0.88					
Overall solution coverage	0.66				0.67					

[a] Black circles indicate the presence of a condition, and circles with 'X' indicate its absence. Large circles indicate core conditions; small ones, peripheral conditions. Blank spaces indicate 'don't care'.

Appendix A. Necessary Conditions

Before obtaining the configurational solutions, we checked our individual conditions against the 0.90 consistency threshold for necessary conditions (Greckhamer, 2011; Schneider et al., 2010). The results are presented in the table below, which shows that none of the conditions exceeded the threshold.

Causal Conditions	Scale of MNE Entry		Scale of MNE Exit	
	Consistency	Coverage	Consistency	Coverage
Economic Conditions				
Factor conditions	0.80	0.82	0.76	0.78
Demand conditions	0.83	0.80	0.80	0.78
Market intermediary development	0.82	0.77	0.77	0.73
Product market competition	0.78	0.73	0.76	0.72
Role of Government				
Market-intervening policies	0.78	0.74	0.75	0.72
Dominance of state economy	0.84	0.81	0.80	0.77

Note: Necessary conditions are calculated with the fsQCA 3.0 software.

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Appendix B. Robustness Checks

We performed robustness checks to understand the stability of the configurational solutions. Following Crilly (2011), we checked the robustness of our results by reducing the threshold used in the fsQCA procedure. Specifically, a reduced consistency threshold of 0.75, the minimum threshold recommended by Ragin (2008) and Crilly (2011), was adopted. Although the coverage level increased (0.84 for MNE entry solutions and 0.75 for MNE exit solutions), the overall solution consistencies reduced significantly (0.85 for MNE entry solutions and 0.83 for MNE exit solutions). Nonetheless, this test reproduced all of the seven configurational solutions from the original test.

Second, since we have adopted a high frequency cut-off at two, we reduced the frequency cut-off to one (Judge, Fainshmidt, & Brown, 2014). For the outcome of MNE entry, the new solutions remained largely similar, with an overall coverage of 0.67 and a consistency of 0.91. For the outcome of MNE exit, solutions 4-7 can still be identified, but three new solutions emerged with a slightly higher coverage of 0.72 and a lower consistency of 0.87. As suggested by Judge et al., (2014), the lower frequency threshold yielded a plethora of configurations, and, to keep our solution more parsimonious, we confirmed that a frequency cut-off of two generates robust results.