

## The Micro-Foundation of Ambidextrous Foreign Direct Investment

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**ABSTRACT** Pursuing ambidextrous foreign direct investment (FDI) has been suggested as a desirable strategic choice of emerging economy (EE) firms in their internationalization. Yet, reconciling explorative and exploitative activities overseas is complicated due to their conflicting and tensional nature. This study explores why some EE firms can achieve high levels of ambidextrous FDI while others cannot. Drawing on upper echelons theory, we propose a micro-foundation perspective of ambidextrous FDI by studying top management teams' (TMTs) attributes. Applying a configurational approach to a sample of 294 EE firms' FDI observations (of which 43 are ambidextrous FDI in nature) from 2011 to 2015, we not only confirm the equal importance of both TMT incentive and cognitive factors as causal conditions to achieve a high degree of ambidextrous FDI, but also provide original evidence on the interactive configurations of those factors that lead to ambidextrous FDI.

**KEYWORDS** ambidextrous FDI, emerging economy (EE) firms, fuzzy-set qualitative comparative analysis (fsQCA), micro-foundation

**ACCEPTED BY** Senior Editor Lin Cui

### INTRODUCTION

The internationalization of emerging economy (EE) firms offers opportunities for scholars to challenge or refine conventional international business (IB) theories by capturing unique features embedded in these firms (Lu, Liu, & Wang, 2011; Lyles, Li, & Yan, 2014; Peng, 2012). One recently documented feature is that EE firms, via ambidextrous foreign direct investment (FDI), seek strategic assets and develop their core competitiveness (cf. Chen, Li, & Fan, 2018; Li & Cui, 2018). Ambidextrous FDI refers to EE firms that pursue exploration- and exploitation-orientated FDI projects simultaneously in order to obtain a competitive edge and thus achieve sustainable development in global markets (Li & Cui, 2018). Despite the potential benefits, ambidextrous FDI induces complexities and

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tension in EE firms due to the dual needs for exploitation (of current assets and capabilities) and exploration (of resource input and sales opportunities) in foreign markets, which may possibly harm shareholder value (e.g., Menguc & Auh, 2008). However, the literature remains limited to articulate how ambidextrous FDI decisions can be made. In this sense, scholars have been urged to understand the role of strategic leaders (i.e., top management team or TMT members) in pursuing cognitively distant opportunities or paradoxical decisions (Chittoor, Aulakh, & Ray, 2019; Gavetti, 2012). To echo this call, this study takes a micro-foundation perspective to examine the effects of TMT attributes on EE firms' ambidextrous FDI by answering: *Why are some EE firms, compared with others, more likely to pursue ambidextrous FDI? How do TMT attributes collectively affect EE firms in pursuing a higher degree of ambidextrous FDI?*

The micro-foundation perspective provides one of the most appropriate theoretical lenses in exploring how actors and their interactions produce firm-level and collective heterogeneity (Chittoor et al., 2019; Coviello, Kano, & Liesch, 2017; Nuruzzaman, Gaur, & Sambharya, 2019). Felin, Foss, and Ployhart (2015) further assert that upper echelons theory is a suitable approach for studying strategic choices from the micro-foundation perspective, because it focuses on the top managers in an organization and naturally shifts from firm-level to team-level or even to individual-level decisions. A nuanced, micro-level understanding of individuals, their behaviors, and social interactions in multinational enterprises (MNEs) is instrumental for explaining processes and macro-level outcomes, such as, strategic decision-making in internationalization (Buckley & Casson, 1976; Liu, Sarala, Xing, & Cooper, 2017).

Upper echelons theory suggests that strategic choices and their outcomes are reflections of the values and cognitive base of TMT (Hambrick & Mason, 1984). Reflected by managerial incentive factors, TMT values are defined as principles for decision-making based on preference (Hambrick & Mason, 1984), while the cognitive base is defined as TMT's knowledge or assumptions about the context (Hambrick & Mason, 1984; Maitland & Sammartino, 2015) and can be reflected by managerial cognitive factors (Hambrick & Mason, 1984). When resolving complex issues, managerial incentive and cognitive factors jointly affect decision processes and subsequent outcomes (Hambrick, Humphrey, & Gupta, 2015; Hambrick & Mason, 1984). Taylor and Helfat (2009: 725) state that 'articulation by top management of a common vision and values that bridge dual contexts increases the likelihood of ambidexterity', and this supports assessing the combinational effect of individual TMT factor on organizational outcomes (Campbell, Sirmon, & Schijven, 2016; Misangyi & Acharya, 2014). Although these two sets of TMT factors have been documented as affecting strategic choice (Steinbach, Gamache, & Johnson, 2018; Su, Fan, & Rao-Nicholson, 2019), the joint effects of managerial incentive and cognitive factors on determining internationalization decisions remain underexplored (Maitland & Sammartino, 2015). To address this knowledge gap, this study investigates the causes of ambidextrous FDI at the level

of strategic leaders and explores the underlying joint effects of managerial incentive factors (i.e., managerial ownership, TMT duality, and TMT tenure) and managerial cognitive factors (i.e., TMT diversity in function, age, and foreign experience).

Methodologically, we adopt a configurational approach with a fuzzy-set qualitative comparative analysis (fsQCA), which allows for the simultaneous consideration of multiple interdependent factors and the inference of causality from set-theoretic relations rather than correlations (Fiss, 2011; Ragin, 2008). Bridging qualitative and quantitative methods, fsQCA enables an abductive research design, in which we empirically identify and conceptually interpret the associations of managerial incentive and cognitive factors that determine the degree of ambidextrous FDI of EE firms. Using this method, we analyze 294 FDI activities of EE firms from China during the period 2011–2015.

Our study contributes to the IB and TMT literatures in three ways. First, by bringing a micro-foundation perspective into the ambidextrous FDI literature (Felin et al., 2015), we deepen the understanding of FDI ambidexterity through investigating the interaction between managerial incentive and cognitive factors that associate with ambidextrous FDI. Second, rather than isolating one TMT factor from others, we adopt a configurational view of TMT attributes to determine their joint effects on achieving or not achieving ambidextrous FDI (cf. Campbell et al., 2016; Fiss, 2011). Our findings support the existence of the interaction effects on corporate strategy formulation between a TMT's incentive factors and cognitive factors, which enriches research on upper echelons theory. Lastly, we adopt the fsQCA technique and build mid-range theoretical insights into the attributes of ambidextrous FDI. In so doing, we offer a fresh theory-building approach to elucidate FDI issues among EE firms.

## LITERATURE REVIEW

### The Micro-Foundations of Ambidextrous FDI

FDI allows firms to organize value chain activities (e.g., R&D, supply, production, and sales) across countries (Chen et al., 2018; Cui, Fan, Liu, & Li, 2017; Luo & Rui, 2009). Conventional FDI theories suggest that FDI provides a governance structure to internalize the transaction of firm-specific assets (e.g., Hymer, 1976), and this in turn allows the firm to efficiently exploit associated advantages internationally. In general, such exploitative FDI commonly pursues for resource-seeking, market-seeking, or efficiency-seeking purposes, where the key objective is to maximize the returns of, rather than enhancement of, the investing firms' existing core competencies (Chen et al., 2018; Cui et al., 2017; Luo & Rui, 2009). Responding to the environmental characteristics of FDI from emerging economies, scholars have emphasized the strategic asset-seeking purposes by which EE firms tend to pursue strategic assets and compete against foreign competitors (Chen et al., 2018; Cui et al., 2017; Luo & Rui, 2009). Such explorative FDI

encourages the accumulation of new knowledge, thereby fostering innovative forms of competitive advantage, helping organizations overcome internal inertia and promoting continued growth (Cui et al., 2017).

Conventionally, firms focus on either exploitation or exploration in the development of the internationalization strategy of organizations because of their diverse nature (Hsu, Lien, & Chen, 2013). However, overemphasis on one aspect over another may eventually create ‘core rigidities’ that undermine the firm’s long-term advantages (Li & Cui, 2018; Luo & Rui, 2009). IB and strategy scholars have therefore suggested the ambidexterity strategy to achieve a firm’s long-term survival and success in global markets (Ireland & Webb, 2007; Levinthal & March, 1993). Through synergizing exploitation and exploration, ambidextrous FDI enables an EE firm to maximize benefits from opportunities induced by globalization, while minimizing the risks and liabilities engendered during its international expansion through learning, adaptation, and leverage (Hsu et al., 2013; Li & Cui, 2018; Luo & Rui, 2009).

Yet, reconciling the needs to be both exploratory and exploitative is challenging (Hsu et al., 2013) due to the conflicting organizational requirements in relation to structures (O’Reilly & Tushman, 2008), contexts (Gibson & Birkinshaw, 2004), and cultural environment (Carmeli & Halevi, 2009) of such efforts. For instance, a decentralized structure has been suggested to support exploration through increasing learning opportunities and facilitating knowledge transfer, while a centralized structure is considered to benefit for exploitation as it can provide a clear locus of control (Choi, Cui, Li, & Tian, 2020). Because of these organizational tensions, researchers have proposed a wide range of organizational solutions. These solutions either emphasize the separation of the operational units for exploration and exploitation (O’Reilly & Tushman, 2008), or promote the integration of the two tasks within an identical unit (Carmeli & Halevi, 2009; Gibson & Birkinshaw, 2004).

Despite diverse organization solutions, ambidexterity also stresses the central role of senior managers in making strategic decisions, adjusting organizational structures to synergize exploration and exploitation, and implementing ambidextrous FDI (García-García, García-Canal, & Guillén, 2017; Li & Cui, 2018; Zimmermann, Raisch, & Cardinal, 2018). Su et al. (2019), for example, discuss the TMT-CEO dynamics in the internationalization process. Li and Cui (2018) further argue that TMT diversity contributes to the level of FDI ambidexterity of EE firms. Given the importance of individual actors in the decision-making process, the call for incorporating a micro-foundation perspective in elucidating this issue has emerged (Felin et al., 2015).

Micro-foundations are not a theory *per se*, but rather ‘a movement and way of thinking that has spread across a broad array of macro theories’ (Felin et al., 2015: 577). This perspective is defined as being concerned with decomposing macro concepts in order to understand how micro-level factors impact organizations and how the interaction of individuals leads to emergent, collective, and organization-level

outcomes (Felin et al., 2015; Foss & Pedersen, 2019). In line with the definition above, the upper echelons theory can be considered a micro-foundation for understanding firm behaviors, because ‘it explains how characteristics, role, and socio-psychological dynamics of top management influence organizational-level outcome’ (Felin et al., 2015: 585). Compared with the broader movement of the micro-foundation approach, upper echelons theory emphasizes the TMT members in organizations (Nuruzzaman et al., 2019). It embraces two key assumptions: first, TMT members act on the basis of their attribution of strategic situations; second, such attributions are a function of managerial incentive factors and managerial cognitive factors (Hambrick, 2007; Hambrick et al., 2015). According to this view, through a micro-foundation theoretical lens, the incentives and cognition residing in TMT members serve as a micro-foundation of firm-level strategic decisions in internationalization, such as in the case of ambidextrous FDI. Next, we discuss how managerial incentive factors and managerial cognitive factors determine EE firms’ FDI strategies.

## MANAGERIAL INCENTIVE FACTORS AND MANAGERIAL COGNITIVE FACTORS

### Managerial Incentive Factors

Defined as ‘principles for ordering consequences or alternatives according to preference’ (Hambrick & Mason, 1984: 195), managerial incentive factors can be viewed as a way of reflecting the TMT’s mindset. In the context of seeking ambidextrous FDI among EE firms, TMT members must align their dominant team principles in decision-making with the interests of the firm’s shareholders (Cannella, Park, & Lee, 2008; Zheng, Shen, Zhong, & Lu, 2020). Although incentives of powerful actors are important, we argue that TMT members are generally high-profile professionals who make decisions based on the premise of bounded rationality (Hambrick, 2007). Therefore, the extent to which a TMT’s incentives can function is more critical. In this sense, we identify three aspects of managerial incentive factors: alignment of objectives, alignment of actions, and alignment of time (cf. Shen & Cho, 2005).

*Alignment of objectives (managerial ownership).* The first set of internal incentives to shape TMT principles in decision-making is TMT stock ownership. Defined as the stock ownership held by top managers, managerial ownership is a long-term incentive that aligns the risk preferences and individual objectives of top managers to shareholders’ interests (Misangyi & Acharya, 2014) and orients TMT activities toward the long term (Carpenter & Sanders, 2004). According to Shen and Cho (2005), higher managerial ownership reflects the extent to which TMT members can align their ‘agent’ interests with shareholders’ interests, that is, increase the alignment of objectives. Larcker (1983), for example, shows that the adoption of

long-term incentive plans (e.g., managerial ownership) results in increased long-term capital investment, which is generally viewed as beneficial for MNE performance (Zhu & Zhu, 2016).

In the case of ambidextrous FDI, its potential for high returns makes it likely to be preferred by shareholders who strive to pursue value-increasing strategies (Luo & Rui, 2009). Yet the managerial challenges of ambidextrous FDI arising from the complexities of coordinating exploitative and explorative activities and achieving synergies may deter the TMT from conducting such a strategy in overseas markets (Li & Cui, 2018). A high level of alignment between shareholders' and TMT members' objectives suggests that, as managerial ownership increases, TMT members are less inclined to divert resources away from shareholder benefit and therefore are more likely take risks and act in the long-term interests of firms, such as seeking ambidextrous FDI for EE firms (e.g., Jensen & Meckling, 1976).

*Alignment of actions (TMT duality).* Alignment of actions refers to the range of strategic alternatives available to TMT members as they pursue organizational outcomes arising from shareholders' demands (Shen & Cho, 2005). The responsibilities of top managers and directors differ in many aspects. Top managers are commonly required to implement the policy decisions of the board and are monitored by the board, while corporate directors are expected to develop long-term strategies and oversee behaviors of top managers (Dunn, 2004). Though the separation of the monitoring role and the management role can bring benefits, this structure can also bring friction and misalignment between the TMT and the board of directors in daily operations (Jensen & Meckling, 1976; Misangyi & Acharya, 2014). Yet this can be relieved by TMT duality (also called inside directors), which refers to TMT members who also sit on the firm's board of directors. Compared with outside directors, who can only make judgments based on readily available financial information (Lorsch, 1989), inside directors can gain deeper insights into strategic decision making from an overarching view and are liable to propose risky but justifiable strategic alternatives (Johnson, Daily, & Ellstrand, 1996). Also, inside directors are embedded with more power to orientate the final outcome or decisions (Finkelstein & Hambrick, 1990; Zheng et al., 2020). Therefore, with TMT duality, firms are more likely to conduct ambidextrous FDI, because inside directors' own abundant knowledge and powerful voices enable them to deal with the complex nature and managerial challenges of ambidexterity (cf. Zahra, 1996).

However, agency theory argues an opposing effect of inside directors on firms' decision making, because of the potential for ineffective monitoring and conflict of interest (Johnson et al., 1996; Lorsch, 1989). Moreover, with inside information and endowed power, inside directors may behave according to their own self-interests in decision making. For instance, Dunn (2004) found that TMT duality may result in abuse of power in strategic decisions and organizational outcomes, because inside directors may have power to control organizational activities that are favorable to them but detrimental to shareholder value. Hence, in the

present context, insider directors may not recommend risky but value-adding strategies, such as ambidextrous FDI, for shareholder-value creation. Given the contradictory arguments on TMT duality, identifying whether inside directors facilitate or hinder the implementation of ambidextrous FDI requires configurational thinking.

*Alignment of time (TMT tenure).* Alignment of time suggests the alignment in the temporal dimension when TMTs commit to and implement strategies (cf. Finkelstein & Hambrick, 1990). A well-discussed construct is TMT tenure, which reflects the accumulated co-working experience among TMT members (Heyden, Oehmichen, Nichting, & Volberda, 2015). With increased tenure, TMT members are more likely to align their interests to the long-term interests of shareholders, because they may develop shared perspectives, ease communications, and enhance overall cohesion (Hambrick et al., 2015) to improve firm performance (Tihanyi, Ellstrand, Daily, & Dalton, 2000). Previous studies find that long TMT tenure is directly linked to executives' commitment to the resource allocation process and strategic persistence to decision patterns (Finkelstein & Hambrick, 1990). Heyden et al. (2015) also suggest that, along with length of tenure, TMT members develop more concrete beliefs about proper norms of behavior and information interpretation and attribution. Moreover, long-tenured managerial teams tend to adopt trusted formulas with proven effectiveness and validity, and thus follow more persistent strategies that conform to central tendencies of the industry (Finkelstein & Hambrick, 1990). Further, the long-tenured TMT, as an integrated team, is more likely aligned with longer-term and firm-level thinking and time horizons to ensure strategy formulation and implementation (Carpenter & Sanders, 2004). Hence increased TMT tenure can create a secure and stable environment for TMT members to conduct ambidextrous FDI. With increased tenure, top managers can also develop a more accurate shared understanding of a complex and uncertain scenario (Finkelstein & Hambrick, 1990), such as ambidextrous FDI. In addition, when pursuing ambidextrous FDI, the long-tenured TMT can be effective for complex intrafirm coordination and cooperation (Tihanyi et al., 2000), thus promoting the collaboration that is required to ensure exploration and exploitation at the same time (Zheng et al., 2020). Therefore, a long-tenured TMT may pursue both explorative and exploitative activities in international expansion.

However, one side effect of long tenure is causing organizational inertia, that is, a long-tenured TMT may create strategic inertia in identifying a new strategy toward environmental change and formation of dynamic capabilities (Shen & Cannella, 2002). Organizational inertia may also reduce managerial flexibility due to increased rigidity in established practices. Further, increased tenure may hinder information processing, because senior executives are used to relying on experience and acting against environmental changes (Finkelstein & Hambrick, 1990). Thus, with increased tenure, top managers may become more risk averse

and hesitate to accept challenges (Coffee, 1998) or adopt novel strategies (Katz, 1982), such as ambidextrous FDI. Therefore, our study argues that the TMT's alignment of time is vital for ambidextrous FDI, considering the coexistence of the benefits and costs of TMT tenure.

### Managerial Cognitive Factors

The TMT literature has elaborated on TMT composition, especially TMT diversity, as an important enabler of successful strategy (Barkema & Shvyrkov, 2007; Hambrick & Mason, 1984), because it reflects cognitive bases of TMTs that affect team processes and subsequent strategic decisions for organizational outcomes (Hambrick et al., 2015). We explore three key aspects of TMT diversity leading to ambidextrous FDI decisions (García-Granero, Fernández-Mesa, Jansen, & Vega-Jurado, 2018; Su et al., 2019), that is, task-, social- and professional experience-related cognitive factors of TMT members.

*TMT functional diversity.* TMT functional diversity refers to the degree to which TMTs are constituted by members from diverse functional areas (García-Granero et al., 2018). Functional diversity of TMTs allows MNEs to build up a large knowledge pool for strategic decision making through integrating complementary intellectual resources from different backgrounds (Carpenter & Sanders, 2004). Task-related debates among functional-diverse TMT members allows managers to combine a great variety of knowledge, perspectives, and specialist skills (Cannella et al., 2008), propose innovative alternatives for the firm's operations (Bantel & Jackson, 1989; García-Granero et al., 2018; Wiersema & Bantel, 1992), and thereby allow the organization to resolve strategic challenges in pursuing exploration and exploitation simultaneously in ambidextrous FDI (Li & Cui, 2018). Organizations with homogeneous TMT functions, on the other hand, always suffer from organizational inertia and a limited range of strategic choices (Bantel & Jackson, 1989; Barkema & Shvyrkov, 2007).

However, disagreements on daily decisions may arise from functional-diverse TMT members, due to their very different attention and communication barriers (Su et al., 2019). This can hinder TMTs in developing capabilities required in synergizing exploitative and explorative activities in overseas markets (Choi et al., 2020), thereby deterring TMTs from conducting ambidextrous FDI. Embracing those contradictory arguments, a configurational perspective can detail the effect of TMT functional diversity in different configurations.

*TMT age diversity.* TMT age diversity refers to the extent to which TMTs consist of members of various ages; age diversity helps organizations balance between social experience and creativity (García-Granero et al., 2018). Age-diverse workforces show a host of different knowledge, values, and preferences (Backes-Gellner &



Veen, 2013; Su et al., 2019). As a team, they have a larger pool of problem-solving toolbox and abundant knowledge (e.g., social, technical or cultural) at varied levels (e.g., beginners or advanced). Younger managers may have higher technical or academic knowledge but less social experience, while elder managers may have less technical or academic knowledge but more social experience (Heyden et al., 2015; Krause, Semadeni, & Cannella, 2014; Wiersema & Bantel, 1992). Thus, combining TMT members with different knowledge bases reduces the risk of one-sided, innovation-averse and organizational-rigid employees, as compared with homogeneous-aged employees with similar risk preference and social resources (Su et al., 2019). In light with this, a TMT with age-diverse members is more capable of dealing with various difficulties in conducting ambidextrous FDI.

However, a large number of studies claim an increasing communication cost with increasing age diversity, resulting from communication difficulties and value conflicts (Backes-Gellner & Veen, 2013; García-Granero et al., 2018). As argued by social identity theory, team members in various age groups tend to build a common identity with others in the same age group, and discrimination against out-groups emerges (Richard & Shelor, 2002; Tajfel, 1982). This stereotype tends to impede communication across generations and prevents a mutually acceptable problem-solving approach in making decisions on ambidextrous FDI (cf. Richard & Shelor, 2002). Given that there are conflicting arguments on its effect on ambidextrous FDI, age diversity should be examined from a configurational perspective to clarify the configurations of TMT attributes that hinder or facilitate the synergies of TMT age diversity.

*TMT foreign experience diversity.* Foreign experience diversity refers to the extent to which executives are heterogeneous in relation to their working and/or education experience overseas (cf. Sambharya, 1996). TMT members who have studied or worked abroad are more readily capable of accumulating knowledge about host-country markets and their regulatory frameworks and institutions (Su et al., 2019). TMT members who study and work domestically, on the other hand, have deeper insights into the socio-economic environment in the home country and can leverage more support from domestic markets and governments (Su et al., 2019).

The main challenge in managing ambidextrous FDI lies in a lack of prior experience in coordinating cross-border operations (Li & Cui, 2018). Heterogeneous TMT foreign experience may facilitate ambidextrous FDI for three reasons. First, top managers with diversified foreign experience add professional knowledge to the collective understanding of foreign markets and accumulate a worldview for the international expansion of EE firms (Su et al., 2019). Second, TMT members with diversified foreign experience are able to acknowledge different patterns of business activities in their home country and foreign markets, and thus identify market opportunities and valuable resources overseas

(Oxelheim, Gregorič, Randøy, & Thomsen, 2013; Tihanyi et al., 2000). Third, with diversified foreign experience, top managers can accumulate diverse knowledge gained from heterogeneous experiences in order to explore solutions in novel scenarios (Hambrick, Cho, & Chen, 1996), such as pursuit of ambidextrous FDI. As a result, TMT members may be less anxious and experience fewer complexities when they are simultaneously conducting exploration and exploitation in international markets (Sambharya, 1996), and overall this reduces the uncertainty associated with ambidextrous FDI.

In contrast, homogeneous TMT foreign experience may not facilitate the adoption of novel strategies in international expansion. With homogeneous experience, top managers may not have diverse information, and this will be detrimental to group decision making, especially in complex situations (e.g., ambidextrous FDI) (Beckman & Haunschild, 2002). Such an effect is more prominent in two extreme situations. One is where the team has almost all its members with foreign experience. This will introduce weak social ties for the home market and insufficient understanding of home institutions, which can also disadvantage firms in acquiring political resources and support in internationalization (Chen et al., 2018; Yan et al., 2018). The other situation is when the team has almost all its members without foreign experience. In such a situation, a lack of foreign experience among executives may cause home-country bias and liability of foreignness (Sambharya, 1996). Although both homogeneous situations are likely to occur in the context of EE firms, the latter situation of a lack of foreign experience is more common for EE firms (cf. Su et al., 2019).

### **A Configurational Approach to the Effect of TMT Attributes on Ambidextrous FDI**

Both managerial incentive factors and managerial cognitive factors have been well-distinguished in prior studies, suggesting each as a strong indicator of firms' strategic choices in general (Hambrick & Mason, 1984; Su et al., 2019) and ambidextrous FDI in particular (Li & Cui, 2018). However, the TMT and IB literature in the past four decades has overly emphasized the net effect of each individual attribute on strategic choice, while lacking a holistic understanding of multiple interactions (i.e., more than three-way interactions) of both sets of attributes regarding TMT incentives and cognitions (cf. Su et al., 2019). The contradictory effects of managerial incentive factors and cognitive factors suggest an approach to TMT configuration in which each individual factor is assessed jointly. A configurational approach refers to 'any multidimensional constellation of conceptually distinct characteristics that commonly occur together' (Fiss, 2011; Meyer, Tsui, & Hinings, 1993: 1175; Misangyi et al., 2017), with advantages for capturing patterns among organizational elements, establishing a mid-range theory development in organization science, and enriching our understanding of organizational coherence (Cui et al., 2017; Misangyi et al., 2017).

## METHODS

### Sample and Data

We tested our theoretical framework using the FDI of Chinese MNEs, because China is one of the largest emerging economies and Chinese MNEs represent the unique features of EE firms (Cui et al., 2017). The sample includes China's listed manufacturing firms that conducted FDI from 2011 to 2015. After deleting observations (1) with missing financial data and (2) those conducting FDI in tax havens such as the Cayman Islands, the Virgin Islands and Bermuda (OECD, 2000), we generated 294 firm-year observations. We restricted the time span from 2011 to 2015 because, first, the Chinese economy has almost recovered from the global financial crisis in 2010, and Chinese MNEs were therefore were vibrant during this period and provide a quality, heterogeneous pool of observations; and, second, a stable, prosperous socioeconomic environment during this time (i.e., fluctuating around 7%) contributes to eliminating potential effects of endogeneity and exogeneity.

Archival data were collected from the Orbis (a firm information database of Bureau van Dijk) and China Stock Market Accounting Research (CSMAR) databases, which are commonly used in research on EE firms' FDI (cf. Su et al., 2019). To supplement these, we manually collected the demographic characteristics of TMT members of each firm from the firms' annual reports (Nielsen & Nielsen, 2011). Our sample illustrates its representativeness by covering focal firms from large in size to medium in size, from state to private ownership, and from a firm age of 20 years to those over 40 years in operation.

### Analytical Approach

We adopted the fsQCA technique to realize the configurational approach. This technique suits our study for four reasons. First, fsQCA allows for an abductive theorizing method with an aim to integrate quantitative and qualitative methods. Abduction is an 'ampliative and conjectural mode of inquiry' through which the researcher explores 'hunches, explanatory propositions, ideas, and theoretical elements' that arise with the 'recognition of puzzling observations that enable us to discern and construct new plots' (Locke, Golden-Biddle, & Feldman, 2008: 907–908). Given the novel nature of this study, an abductive research design fits our research context. Second, compared with conventional regression-based analysis focusing on the net effect of individual variables, fsQCA is suitable for investigating the conjunctural causation (i.e., combining managerial incentive factors and/or managerial cognitive factors), asymmetry (i.e., both the presence and the absence of any particular attribute may connect to the same outcome) and equifinality (i.e., multiple causal patterns) characteristics of EE firms' micro-foundation profiles associated with high-degree or non-ambidextrous FDI. Third, although conventional statistical methods, such as cluster analysis and deviation scores,

can distinguish different groups of firms based on embedded elements, they only provide limited insights into two- or three-way interactions. fsQCA, on the other hand, can uncover multiple ways of interactions (Cui et al., 2017; Fiss, 2011). Fourth, fsQCA is suitable for analyzing small-to-medium sized data, such as 10–50 cases (Misangyi et al., 2017; Ragin, 2008), which supports studying an emerging phenomenon with limited information in scope and depth (Cui et al., 2017; Fan et al., 2016).

## Measures and Calibration

We applied the direct method of calibration by adopting the three-value scheme and the crisp value scheme as suggested by previous fsQCA studies (Fiss, 2011; Misangyi et al., 2017; Ragin, 2008). For three-value scheme, we assigned specified values to fully-in, crossover and fully-out membership. For the crisp value scheme, two breakpoints, namely, fully-in and fully-out, are adopted. Table 1 provides the measurements, calibration thresholds, and the descriptions of focal variables.

*Outcome – Ambidextrous FDI.* In line with prior studies (e.g., Li & Cui, 2018), we measured the degree of ambidextrous FDI through the following formulation:

Degree of Ambidextrous FDI =  $1 - | \text{Exploration \%} - \text{Exploitation \%} |$ , where

$$\text{Exploration \%} = \frac{\text{Total Assets of Exploratory Foreign Subsidiaries}}{\text{Total Assets of All Foreign Subsidiaries}}, \text{ and}$$

$$\text{Exploitation \%} = \frac{\text{Total Assets of Exploitative Foreign Subsidiaries}}{\text{Total Assets of All Foreign Subsidiaries}}.$$

Meyer (2015) argues that explorative FDI mainly includes three purposes, namely, knowledge seeking (Chung & Alcácer, 2002; Li, Li, & Shapiro, 2012), asset augmenting (Narula & Zanfei, 2004) and resource augmenting (Meyer, Wright, & Pruthi, 2009). Based on the arguments above, we followed Li and Cui (2018) and identified Chinese firms' FDI in advanced countries with the main activities in R&D, marketing and/or manufacturing as exploratory activities. All other FDI activities were identified as exploitative (Li & Cui, 2018). For example, Taiyuan Heavy Industry Co. Ltd. had two overseas subsidiaries in 2011: the Indian subsidiary, which is responsible for import/export and spare parts storage, was identified as exploitation; the German subsidiary, which is mainly responsible for the design and R&D, was identified as exploration. Another example is Lifan Group, which ran three foreign subsidiaries in 2015: we identified the one operating in Russia for R&D as an explorative FDI, but the remaining two operating in Brazil and Uruguay, respectively for product import/export, as exploitation.

We took two steps to calibrate the degree of ambidextrous FDI. We used a crisp set to assess each firm's membership in ambidextrous FDI. Specifically,

Table 1. Calibration of sets (full sample and subsample)

Type	Variable	Measurement & data source	Calibration anchors (Full sample)	Calibration anchors (Subsample)	Values in sets	Measure descriptive (Full sample)				Measure descriptive (Subsample)			
						Mean	SD	Mas	Alin	Mean	SD	Max	Miu
Outcome	Degree of Ambidextrous FDI	Degree of ambidextrous FDI is calculated as (1- Exploration %- Exploitation %  ). Data is manually collected from annual reports of firms	n.a.	0.8,0.6,0.4	3	0.15	0.35	1	0	0.71	0.24	1	0.25
	Non-Ambidextrous FDI	1 means the existence of ambidextrous FDI. while 0 refers to non-ambidextrous FDI	1,0	n.a.	2	As Above				n.a.			
Managerial Incentive Factors	Managerial Ownership	Percentage of ownership held by TMT members	10,5,0	15,7,5.0	3	7.29	13.71	80.96	0	5.30	12.35	41.95	0
	TMT Duality	Percentage of TMT members as inside board directors on the board of directors	40,22.5,15	50,25,0	3	29.30	18.36	100	0	28.41	22.23	100	0
	TMT Tenure	Average of TMT's tenure length (months)	52,36,20	60,40,20	3	38.12	22.64	117.5	1	41.07	22.84	93.33	1
Managerial Cognitive Factors	Functional Diversity	Following Qian et al. (2013), TMT functional diversity is calculated with a Blau index.	0.7,0.59,0.48	0.7,0.55,0.4	3	0.58	0.14	0.97	0.22	0.56	0.14	0.78	0.27
	Age Diversity	Following Bantel & Jackson (1989), using the coefficient of variation (the standard deviation divided by the mean).	0.4,0.3,0.2	0.45,0.325,0.2	3	0.31	0.14	0.78	0.01	0.32	0.115	0.75	0.10
	Foreign Experience Diversity	TMT foreign experience diversity is calculated with a Blau index.	0.3,0.15,0	0.3,0.15,0	3	0.09	0.15	0.56	0	0.12	0.17	0.54	0

Notes: n.a. refers to not applicable. The anchors follow a sequence of fully-in, cross over, and fully-out points respectively, except 1,0 which is a crisp set (1=full membership, while 0=full non-membership).

firms that have conducted explorative and exploitative FDI (i.e., the degree of ambidexterity is larger than 0) simultaneously were assigned as fully in. For firms without any ambidextrous FDI behavior (i.e., the degree of ambidexterity equals to 0), we coded these as fully out. Among these cases, 43 firms have various degrees of ambidextrous FDI behaviors.

We then examined the sample of firms with ambidextrous FDI (43 observations). In the calibration of the degree of ambidextrous FDI, the score of 0 was assigned to firms with a degree of ambidextrous FDI in the 25<sup>th</sup> percentile (i.e., 0.4 in our data set), indicating that these firms are fully out of the set of firms with a high degree of ambidextrous FDI. The score of 1 was assigned to firms in the 75<sup>th</sup> percentile (i.e., 0.8), representing a full membership of the set. Following prior research (Fiss, 2011), we chose the 50th percentile (i.e., 0.6) as the crossover point.

### Managerial Incentive Factors

*Managerial ownership.* We measured managerial ownership by calculating the total equity held by TMT members. To calibrate the managerial stock, we assigned the score of 0 to firms with managerial ownership in the 25<sup>th</sup> percentile (i.e., 0 in both the full sample and the subsample), showing that they are fully out of the set of firms with high levels of managerial ownership. Firms in the 75<sup>th</sup> percentile (i.e., 0.10 in the full sample, 0.15 in the subsample) were assigned the score of 1 for its full membership of the set. The crossover point was defined as the 50<sup>th</sup> percentile (i.e., 0.05 in the full sample, 0.075 in the subsample) of managerial ownership, which is consistent with Fiss (2011).

*TMT duality.* Following Misangyi and Acharya (2014), we defined TMT duality as those inside directors who were a part of the TMT, and then measured this by calculating the ratio of the number of inside directors to the total number of TMT members. To calibrate the proportion of inside directors, we assigned the score of 0 to firms with a high level of the ratio of inside directors (i.e., 0.15 in the full sample, 0 in the subsample), which means that they are fully out of the membership set with a high proportion of inside directors. Firms in the 75<sup>th</sup> percentile (i.e., 0.40 in the full sample, 0.50 in the subsample) were assigned 1 for representation as fully in the set. For the crossover point, we adopted the 50th percentile (i.e., 0.225 in the full sample, 0.25 in the subsample) of the ratio of the internal board based on prior studies' calibration approach (Fiss, 2011).

*TMT tenure.* According to Goll and Rasheed (2005), we used the mean number of months managers serve as a TMT member. To calibrate TMT tenure in this study, firms with a rating at the 25<sup>th</sup> percentile (i.e., 20 in both the full sample and the subsample) were assigned as fully-out of firms with high TMT tenure, while firms rating at the 75<sup>th</sup> percentile (i.e., 52 in the full sample, 60 in the

subsample) were assigned as fully-in. For the crossover point, we selected the 50<sup>th</sup> percentile of TMT tenure (i.e., 36 in the total sample and 40 in the subsample) (Fiss 2011).

### TMT Cognitive Factors

*TMT functional diversity.* Following Qian et al. (2013), we calculated TMT functional diversity with a Blau index, using the formula  $B = [1 - \sum (p_i)^2]$ , where  $p_i$  represents the percentage of TMT member in the  $i$ -th functional expertise group (that is, 1 = chief executive officer, 2 = chief financial officer, 3 = chief technology officer, 4 = chief operational officer, 5 = vice president, and 6 = others). To calibrate TMT functional diversity, we assigned the score 0 to firms with a Blau index in the 25<sup>th</sup> percentile (i.e., 0.48 in the full sample, 0.40 in the subsample), which means they are full out of the set of firms with a highly functionally diversified TMT. Firms in the 75<sup>th</sup> percentile (i.e., 0.70 in both the full sample and the subsample) are fully in the set, and were assigned the score of 1 for membership. As the crossover point, we adopted the 50<sup>th</sup> percentile (i.e., 0.59 in the full sample and 0.55 in the subsample) of TMT functional diversity, which is consistent with prior studies' calibration method (Fiss, 2011).

*TMT age diversity.* According to previous studies (e.g., Bantel & Jackson, 1989), we calculated TMT age diversity by using the coefficient of variation (the standard deviation divided by the mean), which provides a direct method for obtaining a scale invariant measure of dispersion. This is appropriate for interval-level variables with a theoretically fixed zero point, such as age diversity. To calibrate TMT age diversity in this study, we assigned the score of 0 to the age diversity set in the 25<sup>th</sup> percentile (i.e., 0.2 in both the full sample and the subsample), which means they are out of the set of firms with a high age-diversified TMT. Firms in the 75<sup>th</sup> percentile are fully in the set and were assigned the score of 1 for membership (i.e., 0.4 in the full sample and 0.45 in the subsample). As a crossover point, we chose the 50<sup>th</sup> percentile of firms' TMT age diversity (i.e., 0.3 in the full sample and 0.325 in the subsample), which is consistent with prior studies' calibration approach (Fiss, 2011).

*TMT foreign experience diversity.* We measured TMT foreign experience diversity with a Blau index. We applied the formula  $B = [1 - \sum (p_i)^2]$ , where  $p_i$  represents the percentage of TMT member in the  $i$ -th foreign background (that is, 1 = with foreign educational background, 2 = with foreign working background, and 3 = with neither foreign educational background nor foreign working background). To calibrate TMT foreign experience diversity in this study, firms with a rating at the 25<sup>th</sup> percentile (i.e., 0 in both the full sample and the subsample) were assigned as fully out of firms with high TMT foreign experience diversity, while firms rating at the 75<sup>th</sup> percentile (i.e., 0.3 in the full sample and the subsample)

were assigned as fully in. For the crossover point, we selected the 50<sup>th</sup> percentile of TMT tenure (i.e., 0.15 in the total sample and the subsample) (Fiss 2011).

### Analytical Procedure

To explore our research questions, we conducted a two-step fsQCA analysis. We first analyzed the full sample ( $N = 294$  firm-year observations) to detect the configurations of managerial cognitive factors and managerial incentive factors that deter EE firms from choosing ambidextrous FDI. Then we used the subsample ( $N = 43$  firm-year observations) to examine the configurations of managerial cognitive factors and incentive factors that will lead an EE firms to conduct a high level of ambidextrous FDI.

We started by examining the limited diversity inherent in causal complexity. This issue occurs when the sample fails to reflect all logically possible casual conditions that can lead to the outcome (Ragin, 2008). The logically possible causal combinations of this study are  $2^6$  (six attributes) = 64. The sufficient analysis of the fully sample is free of the influence of limited diversity of combinations (that is, the logically possible causal combination exceeds the sample size), while the analysis of the subsample is potentially affected. Thus, we analyzed the truth table algorithm of the subsample (see Appendix I), in which all logically possible combinations of causal conditions and each configuration's empirical outcome are listed (Ragin, 2008). In the truth table, causal combinations of conditions exceeding an appropriate cut-off consistency score are counted as sufficient with an outcome as 1 in the table, while those causal combinations with a consistency level below the appropriate cut-off value are categorized as insufficient with an outcome as 0. As shown in the truth table of the subsample, 22 possible configurations are absent (64 possible configurations minus 42 cases covered by the truth table analysis). However, the 43 cases (subsample) capture entire variations in forming configurations (27 plausible configurations can achieve a high degree of ambidextrous FDI). Thus we can safely conclude that our subsample analysis does not suffer from limited diversity (Fan, Cui, Li, & Zhu, 2016).

After reviewing the truth tables, we logically minimized the table by using Boolean algebra to reveal the combinations of causal conditions that are minimally sufficient for producing the outcomes. We adopted the consistency level of 0.80 proposed by previous studies (Fiss, 2011; Misangyi & Acharya, 2014) as a threshold, and observed a gap in the distribution of consistency score. Then we applied a cut-off value of 0.92 and frequency cut-off value of 10 in the analysis of the full sample and applied a cut-off value of 0.95 and frequency cut-off value of 2 in the analysis of the subsample. Both the adopted thresholds exceeded the minimum requirement of 0.80 (Fiss, 2011; Ragin, 2008).

The fsQCA results of the causal effect of configurations of both managerial incentive factors and managerial cognitive factors on ambidextrous FDI are shown in Table 2. The configurational solutions are presented in the style of



Table 2. Configurations for ambidextrous FDI

<i>Upper Echelons Framework</i>	<i>High Degree of Ambidextrous FDI</i>			<i>Non-Ambidextrous FDI</i>	
	<i>S1</i>	<i>S2</i>	<i>S3</i>	<i>S4</i>	<i>S5</i>
<b>Managerial Incentive Factors</b>					
Managerial Ownership	●	●	●	⊗	⊗
TMT Duality	●	●	⊗	⊗	●
TMT Tenure		●	●	⊗	●
<b>Managerial Cognitive Factors</b>					
Functional Diversity	●	⊗	●	⊗	⊗
Age Diversity	⊗	●	⊗	⊗	⊗
Foreign Experience Diversity	⊗	⊗	●	⊗	⊗
Consistency	0.97	0.95	0.97	0.92	0.94
Raw coverage	0.14	0.10	0.08	0.07	0.07
Unique coverage	0.10	0.07	0.04	0.05	0.05
Representative Case Firms	Anjie/Brother	Hailu, Yulong Steel	O-film Tech	Tianyuan/Taigang	Luxi/Sanjju
Overall solution consistency		0.97		0.93	
Overall solution coverage		0.25		0.13	

*Notes:* 1) Black circles indicate the presence of a condition, and circles with X indicate its absence. Blank spaces indicate 'don't care'. 2) S1-S5 stand for Solution 1- 5.3) Due to space limitation, only two representative case firms that are identified by fsQCA3.5 are selected here. 4) Non-ambidextrous FDI solutions are analyzed from the full sample, while High Degree of Ambidextrous FDI solutions are derived from the subsample.

Ragin and Fiss (2008), in which black circles (●) indicate the presence of a condition and circled crosses (⊗) indicate its absence. Blank spaces indicate ambiguous situations, in which the corresponding causal condition may be either present or absent, and therefore does not play a significant role in configurational solutions. In line with Ragin (2008), the intermediate solutions generated by fsQCA3.5 are reported, because the intermediate solutions are more conservative, with stronger empirical plausibility (cf. Ragin, 2008).

Two measures of model fit, consistency and coverage, are reported in Table 2. The consistency score measures how well the solution corresponds to the data (Ragin, 2008). The score is calculated for each configuration separately and for the whole solution as well. The consistency score ranges from 0 to 1, with a higher value implying greater alignment between the theoretical relationship and the actual data (Ragin, 2008). The second fit indicator measures solution coverage, indicating the representativeness of solutions as a whole (Ragin, 2008). The results show a coverage of 0.25 for high degrees of ambidextrous FDI and 0.13 for non-ambidextrous FDI.

### Robustness Tests

As we performed different types of QCA for both non-ambidextrous FDI (full sample) and high degree of ambidextrous FDI (a subsample for only those EE firms with ambidextrous FDI), we found our results for non-ambidextrous FDI were already robust, because of the high-frequency cut-off value ( $N=10$ ) and high consistency value (0.92). Thus, we performed three robustness checks only on the subsample to examine the stability of the configurational solutions for achieving ambidextrous FDI.

*Analysis of necessity.* Guided by Dwivedi et al. (2018), we tested the necessity of the focal variables in our theoretical framework. This analysis was to test whether one or the other of the identified attributes must be present for the outcome in question to occur (Ragin, 2008). As the results shown in Table 3, with the adoption of 0.80 as a benchmark, none of the focal attributes was necessary in themselves for either non-ambidextrous FDI or a high degree of ambidextrous FDI.

*Alternative attributes.* Following Dwivedi et al. (2018), we examined the robustness of our findings by adopting an alternative measure of managerial ownership. We changed the proxy of alignment of objects to the heterogeneity of managerial ownership, which was measured by the coefficient of variation of managerial ownership (the standard deviation of managerial divided by the mean). To calibrate the heterogeneity of managerial ownership, firms with a rating at the 25<sup>th</sup> percentile (i.e., 0.7 in the full sample, 0.6 in the subsample) were assigned as fully out of firms with high heterogeneity of managerial ownership, while firms rating at the 75<sup>th</sup> percentile (i.e., 0 in the full sample, 0.36 in the subsample) were assigned as

Table 3. Analysis of necessary conditions

<i>Upper Echelons Framework</i>	<i>High Degree of Ambidextrous FDI</i>		<i>Non-Ambidextrous FDI</i>	
	<i>Consistency</i>	<i>Coverage</i>	<i>Consistency</i>	<i>Coverage</i>
<b>TMT Incentive Factors</b>				
Managerial Ownership	0.43	0.80	0.32	0.83
TMT Duality	0.63	0.80	0.56	0.86
TMT Tenure	0.59	0.74	0.48	0.83
<b>TMT Cognitive Factors</b>				
Functional Diversity	0.58	0.71	0.51	0.87
Age Diversity	0.44	0.66	0.47	0.85
Foreign Experience Diversity	0.39	0.68	0.28	0.81

*Note:* Necessary conditions are calculated with the fsQCA 3.5 software.

fully in. For the crossover point, we selected the 50<sup>th</sup> percentile of heterogeneity of managerial ownership (i.e., 0.35 in the total sample and 0.48 in the subsample) (Fiss 2011). The results includes all existing solutions except solution 1, which indicates a satisfied reliability of the configurational solutions.

*Analysis of sensitivity.* Following Fiss (2011), we further conducted sensitivity analyses to test the robustness of our findings through alternative specifications of our causal conditions. Specifically, we varied the crossover point between +/- 25% for all the measures. Minor changes were observed regarding the number and configuration of solutions, but the interpretation of our results remained substantively unchanged.

## FINDINGS AND PROPOSITION DEVELOPMENT

### Interpretation of Configurational Results

In interpreting the solutions shown in Table 2, we sought to understand the qualitatively different configurations of managerial incentive factors (i.e., managerial ownership, TMT duality, and TMT tenure) and cognitive factors (i.e., TMT functional diversity, age diversity, and foreign experience diversity) that result in high degree of ambidextrous FDI and non-ambidextrous FDI. To facilitate the interpretation of the results, we identified representative cases associated with each solution from the truth tables, where cases with membership greater than 0.5 imply representative cases (cf. Cui et al., 2017). We discussed each solution with one representative case. All case information was supplemented from publicly available archival data (e.g., corporate annual reports, media interviews, and stock exchange reports).

*Solution 1* represents a configuration featuring high levels of managerial ownership and TMT duality, but with homogeneous TMT members regarding age and

foreign experience. In this situation, EE firms need to have a group of functionally diverse managers who have varied working duties to build up a cognitive base, thereby achieving ambidextrous FDI. A typical case from our sample that represents this solution is Anjie Tech Co. Ltd (Anjie, hereafter):

*Founded in 1999, Anjie is an important supplier for Microsoft, Huawei and Lenovo in the global consumer electronics industry. With a clear managerial goal to boost the firm's global image and to enhance global competitiveness, Anjie's TMT gets actively involved in internationalization by conducting FDI in multiple regions (e.g., the United States, Hong Kong). In annual reports, the TMT repeatedly emphasized their desire to approach larger global markets and source advanced technologies from host countries. Anjie has a solid incentives alignment among TMT members, indicated by 60% of the TMT members sitting on the board of directors and 38.26% managerial stock ownership. The TMT is characterized by high heterogeneity of functional backgrounds, ranging from the CEO to the CFO, but homogeneity of age (e.g., four out of five TMT members are in their 30s, and the rest are in their 20s), and none was educated or working overseas.*

*Solution 2* reflects the type of TMT micro-foundation that consists of all three attributes of TMT's incentives (i.e., managerial ownership, TMT duality, and TMT tenure) and the TMT's diversified age. Yet, in this solution, neither diversified functional background nor varied foreign experience is found. A typical case from our sample that represents this solution is Hailu Heavy Industry Co. Ltd (Hailu, hereafter):

*Established in 1956, Hailu designs and manufactures energy-saving equipment. Adhering to the core value of becoming a 'leader in science and technology, pioneer in the industry', Hailu is motivated to internationalize. Before the TMT decided to establish a new overseas subsidiary in Switzerland to seek strategic assets in 2013, Hailu had already operated in Hong Kong to export products overseas. At that time, Hailu's TMT members had worked together for 50 months on average, and had been allocated 25.26% of stock as an incentive option. Among those managers, 38.5% of TMT members also served on the director board. Moreover, at that time, the TMT was formed by executives who are aged across three groups (30s, 40s, and 50s). Although Hailu has attracted a group of talented experts for scientific research, management, production, and marketing during its development, the functional positions of its TMT members were rather homogeneous and the team lacked foreign experience diversity.*

*Solution 3* describes the situation where the managerial ownership and TMT tenure jointly underpin the TMT's incentives. In this configuration, to reconcile the exploration and exploitation in FDI, EE firms must have a highly heterogeneous TMT in regard to functional backgrounds and foreign experience. Age diversity, however, should be absent in order to facilitate the establishment of the TMT's cognitive bases. A representative case from our sample is O-film Tech Co. Ltd (O-film, hereafter):

*O-film, founded in 2002 in Shenzhen and listed on the Shenzhen Stock Exchange in 2010, is an innovation-oriented manufacturer of electronics components, mainly providing touch screens, video-head modules, fingerprint identification modules, among others. Through marketing and establishing subsidiaries in the United States, Japan, South Korea, Finland, Germany, and other countries and regions, O-film is regarded as a highly internationalized firm. According to media interviews with TMTs, these subsidiaries not only facilitate access to expanded product markets, but also acquire local quality resources of R&D, and industry information. Under its well-functioning TMT's leadership, O-film completed a shareholding system reform and allocated a high level of stock rights to top executives in 2007, which motivates the TMT towards further internationalization. Prior to its international expansion, the long-tenured TMT of O-film was formed by executives who were assigned to multiple functional roles and had both educational experience and working experience in foreign countries. All the TMT members were aged around 40.*

*Solution 4 captures a configuration associated with non-ambidextrous FDI, in which all the TMT's incentive factors and cognitive factors are absent. In this situation, EE firms fail to align TMT members' objectives and actions with shareholders' objectives, constrain top managers' autonomy and have a short tenure period. The TMTs are homogeneous, featuring highly homogeneous functional, age and foreign experience. Thus, EE firms tend to pursue either explorative or exploitative FDI instead of reconciling these two strategic activities. A typical case from our sample that represents this solution is Tianyuan Group Co. Ltd (Tianyuan, hereafter):*

*Tianyuan was founded in 1994 and was listed on Shenzhen Stock Exchange in 2010. After a three-decade development, it has become one of the pioneers in the domestic Chlor-Alkali Industry. Tianyuan has full sets of advanced proprietary technology – carbide, PVC, hydrazine and green cement – with nearly 93 patents, of which more than 10 core patents are at an advanced level in global terms. Tianyuan prefers to establish exploitative-oriented foreign subsidiaries, which are mainly for market expansion. At the time, the TMT of Tianyuan was constituted by ten top managers, who shared a similar age level (40s), covered highly homogeneous managerial functions and lacked international experience. Moreover, the TMT incentive elements were absent in Tianyuan, reflected by the highly independent director board, a negligible amount of managerial ownership and a short period of tenure.*

*Solution 5 reveals a micro-foundation characterized by high levels of TMT duality and long TMT tenure. However, the lack of managerial ownership and all the managerial cognitive factors (i.e., functional, age and foreign experience diversity) deters EE firms from conducting ambidextrous in foreign markets. A typical case derived from our sample is Luxi Chemical Group Co. (Luxi, hereafter):*

*Luxi is a municipal and state-owned enterprise. In May of 1998, Luxi was founded and went public on the Shenzhen Stock Exchange. With total assets of 30.1 billion RMB and over 11,000 employees, Luxi focuses on the R&D of chemical equipment and clean energy to*

*impel high-efficiency utilization of chemicals. Such an innovation-oriented focus has been reflected in its internationalization – conducting explorative FDI exclusively. In terms of the TMT policies, 44.4% of TMT members also sit on the board of directors and have tenure of about 40 months, which may lay the foundation of similar managerial objectives. But managerial ownership is at a low level in this firm, which is likely to induce conflict in managerial actions. In terms of the TMT's characteristics, the TMT members of Luxi are aged from their 40s to 50s, with similar functional backgrounds and no experience in studying or working in foreign countries.*

### **Proposition Development**

The five generated configurations above allow us to further draw general insights about the interrelations between the managerial incentive factors and managerial cognitive factors. Our findings show that, for achieving a high level of ambidextrous FDI, EE firms need well-functioning TMT configurations, that is, at least one TMT members' managerial incentive factor and one managerial cognitive factor need to appear simultaneously (see Solutions 1, 2, and 3 in [Table 2](#)). This finding reflects Hambrick and Mason's (1984) original thinking: any strategic choice has a large behavioral component, but the issue is to what extent these behavioral components can reflect the idiosyncrasies of decision makers. In their view, both incentive and cognitive-attributes are essential, because the two set of 'givens' reflect these decision makers' and executives' knowledge pool and preference ordering (Carmeli & Halevi, 2009). The strategic choice of ambidextrous FDI among EE firms can be analyzed from two aspects. On the one hand, TMT members require a knowledge base to recognize the benefits of ambidextrous FDI, but also, more importantly, achieving ambidexterity should be their priority, that is, alignment with shareholders in terms of objectives, actions and tenure to do so. On the other hand, TMTs also face complex managerial challenges that arise from strategic ambidexterity, and TMT members should have a knowledge pool for the likelihood of innovative problem solving and for ordering consequences of dealing with problems from the urgent to less important tasks. Taken together, we propose that:

*Proposition 1: The presence of any of managerial incentive factors and any of managerial cognitive factors can foster a higher level of ambidextrous FDI among EE firms.*

In our research design, we also compare the common characteristics of the upper echelons configurations that lead to non-ambidextrous FDI. While our analysis confirms that such configurations do exist, the more interesting finding is that the absence of either foundation stone of the upper echelons will not build a well-functioning TMT, and this, in turn, fails to foster an EE firm in simultaneously conducting exploration and exploitation FDI activities (see Solutions 4 and 5 in [Table 2](#)). The finding echoes one of central arguments of upper echelons theory: strategic choices and their outcomes are reflections of the incentives and cognitions

of the TMT (Hambrick & Mason, 1984). As discussed, when TMT members lack the knowledge pool and are unable to make decisions according to their preference, their managerial roles and positions are in a vacuum (i.e., Solution 4). Thus, they are indeed unable to achieve strategic ambidexterity. Likewise, even if TMT members of EE firms can form constructive task-related debates and reach comprehensive solutions to enable them to synergize tasks associated with ambidextrous FDI, TMT members must also legitimate themselves by aligning with shareholders' interests in terms of either objectives or actions (i.e., Solution 5). Otherwise TMT members can easily encounter strategic priority confusion in general, and lose support from shareholders in particular. Moreover, due to their homogeneous background, TMT members tend to think and behave in similar patterns, and are less likely recognize different types of opportunities and rebel against the 'orthodoxy' to form a cognitive base for pursuing ambidextrous FDI. Taken together, we propose that:

*Proposition 2: The absence of either the set of managerial incentive factors or the set of cognitive factors deters EE firms from choosing ambidextrous FDI.*

When EE firms intend to balance costs and benefits of taking ambidextrous FDI, TMT functional diversity plays a role in identifying and solving strategic difference regarding the task of pursuing exploration and exploitation simultaneously through ambidextrous FDI (Li & Cui, 2018). Su et al. (2019) also argue that TMT functional diversity focuses on a more task-related attribute – functional background – and a functionally diverse TMT typically possesses a wide arrange of skills, ideas, and perspectives, solving the task from different directions (Tihanyi et al., 2000). As our results show, as long as TMT members can align both their objectives and actions with shareholders when pursuing diversified internationalization strategies (see Solution 1), TMT functional diversity absorbs the functional demands for pursuing various strategies.

TMT age diversity is more associated with personal demography than with specific tasks. Exposed to differing environmental stimuli and events, the executives in different age cohorts develop varied attitudes and relevant responses; such diversity facilitates organizational change (Bantel & Jackson, 1989). Therefore, when EE firms aim to achieve a high level of ambidextrous FDI, a TMT team can benefit from age diversity by enjoying the advantages of different age cohorts (e.g., providing a holistic thinking about strategic plans, minimizing potential risks while having the courage to maximize opportunities). Yet TMT age diversity must be equipped with strong incentives. As indicated by Solution 2, a well-functioning TMT must align its objectives, actions, and time with shareholders' objectives in order to ensure an ambidextrous logic via legitimizing their risk-taking behaviors, as well as owning enough autonomous authority, sufficient information support, and buffering time.

Foreign experience diversity shapes multi-facet perspectives of the foreign environments of the TMTs of EE firms and helps understand FDI decisions

among EE firms in a comprehensive way (Sambharya, 1996). TMT members who have different studying or working experience allows top managers to acknowledge and capture opportunities, to ease uncertainties and to establish business ties in international markets (Tihanyi et al., 2000). As our results show, foreign experience diversity works with functional diversity in prompting ambidextrous FDI when TMT duality is absent. This provides some interesting insights into the interactions between the TMT's incentive factors and cognitive factors. Overall, incentive factors and cognitive factors combine as complements in ambidextrous FDI among EMNEs; yet some elements of the two substitute for each other for fostering high levels of FDI ambidexterity. Taken together, we posit:

*Proposition 3a: When TMT incentive factors are present, TMT functional, age, and foreign experience are substitutive in one form or another.*

*Proposition 3b: When one of TMT incentive factors – TMT duality – is lacking, functional and foreign experience diversity work jointly to foster a higher level of ambidextrous FDI.*

## DISCUSSION

Despite the importance of the simultaneous pursuit of exploration and exploitation, ambidextrous FDI of EE firms is an under-researched area. Employing the fsQCA method, we adopt a micro-foundation theoretical lens to observe the role of TMT attributes. Our findings identify three TMT configurational solutions for achieving a high level of ambidextrous FDI, and two TMT configurational solutions for not achieving ambidextrous FDI among EE firms. Given the autonomous and collective decision-making process, we suggest that TMT composition as a whole cannot be ignored. When solving complex issues, managerial incentive factors and managerial cognitive factors interact with each other, collectively affecting the decision processes. Our research contributes to theoretical and practical aspects of ambidexterity research and meanwhile provides a roadmap for future research.

### Theoretical Implications

We seek to make three theoretical contributions. First, we contribute to the ambidextrous FDI literature by adding a micro-foundations approach. As Li and Cui (2018) point out, pursuing ambidextrous FDI is desirable, but the process of reaching it is full of managerial challenges for EE firms. The current study investigates how TMT members, as a handful of powerful individuals, can form a micro-foundation of ambidextrous FDI. Studying how aggregation is construed is essential to understanding the micro-foundations in the strategy and organization theory domains (Felin et al., 2015). To address the call for future research, our study contributes to unpacking TMT aggregates to understand how EE firms



form international competitive advantages via ambidextrous FDI. It is worth noting that using a micro-foundations perspective to analyze ambidexterity was pioneered by Rogan and Mors (2014). Our study extends Rogan and Mors's efforts by exploring the micro-foundations of gaining ambidextrous FDI in the context of EE firms. In so doing, this study addresses Felin et al.'s (2015) concern that the 'explanandum' of micro-foundations by answering the question of how firms gain competitive advantages.

Second, this study enriches the application of upper echelons theory by providing a configurational approach and enabling testing for joint effects of multiple TMT attributes. In their seminal work, Hambrick and Mason (1984) explicitly argue that the theory explains a firm's strategic choice through the interaction between a handful of influential individuals' incentives and cognitions. Surprisingly, although a vast body of TMT-related studies has emerged, few researchers have followed the original thinking of Hambrick and Mason (1984). Our findings indicate that the existence of the interaction between a TMT's incentive factors and cognitive factors leads to ambidextrous FDI. Moreover, TMT diversity in function, age, and foreign experience are evidently able to substitute with each other when achieving ambidexterity in FDI.

Third, the study develops mid-range theoretical insights for deepening our understanding of how EE firms achieve ambidextrous FDI via configuring TMT members' attributes. Mid-range theory development refers to an abductive theorizing method aimed at integrating theory and empirical research. Similar approaches have been recently employed by Campbell et al. (2016) and Misangyi and Acharya (2014), who develop results-based propositions to advance relevant theories in the management domain. As stated by Ragin (2008), the results-derived proposition development process can be seen as inductive elaborations of existing management theories in configurational terms that are a natural extension of fsQCA's roots as an abductive method. In our research context, we proposed three propositions to explain why some EE firms but not others are more likely to pursue ambidextrous FDI. If EE firms tend to achieve ambidexterity in FDI, our findings further indicate three distinctive patterns of how to configure TMT attributes collectively for the outcome. In addition, to ensure the robustness of our findings, we conducted a further analysis by testing the framework within state-owned enterprises and within private-owned enterprises separately. Our propositions still hold in order to explain the eventual solutions, which provide further support for this configurational approach.<sup>[1]</sup>

## Managerial Implications

This study also offers several practical implications. In general, we highlight the importance of evaluating the micro-foundations of TMT member attributes when crafting strategies for achieving a high degree of ambidextrous FDI. In

each firm, the top leader's mindset directly reflects the firm's strategic decisions. Thus, when forming an EE firm's top management team, decision-makers or human resource professionals need to make sure of the simultaneous appearance of managerial incentive factors and managerial cognitive factors, if this firm aims to be ambidextrous in FDI. For instance, recalling Solution 5, even if TMT members can align their actions and time sufficiency with shareholders' interests, the firm cannot achieve ambidextrous FDI due to the absence of a diverse cognitive base among TMT members. Further, our configuration solutions of managerial incentive factors and managerial cognitive factors illustrate distinct business or functional (e.g., human resource) strategies that form a well-functioning TMT. The three solutions associated with a high degree of ambidextrous FDI work equally effectively in achieving desired internationalization goals. The equifinal solutions, therefore, not only imply that the attempt to identify the 'best way' to structure the TMT is unnecessary, they also provide practical guidelines for attracting, selecting and retaining relevant senior executives.

### **Limitations and Implications for Future Research**

The limitations of this study indicate potential directions for future research. First, this study uses fsQCA to examine the micro-foundations of ambidextrous FDI. Distinct from conventional regression-based methods, fsQCA has no omitted variable bias, as it relies on Boolean algebra rather than on correlations (Dwivedi et al., 2018; Misangyi et al., 2017). Nevertheless, we agree that with the primary focus on TMT incentive and cognitive factors, upper-echelon itself reflects limited attributes to ambidextrous FDI theory. Future researchers can go further to consider other explanations on ambidextrous FDI (e.g., micro-level or firm resources, industry competition and actions of peers, institutional push/pull factors at the macro-level).

Second, the time window of this study is five years (2011–2015). However, for capturing firms' internationalization process, such a short period might not be sufficient to disclose strategic changes of many firms. These intended strategic changes are interesting to investigate: what TMT attributes separately or jointly trigger the change is especially worth studying from a micro-foundation perspective. Therefore, we urge future studies to extend the time window to cover a wide range of FDI events and track their strategic transfers.

Third, we need to pay attention to other TMT-related variables. For example, because the changes in TMT composition may influence organizational outcomes (Hambrick et al., 2015), the type of FDI may be contingent upon the composition of a TMT. Thus, future research can explore the dynamics between a TMT's composition and the degree of ambidextrous FDI. Also, we argue that function, age, and foreign experience diversity represent the three key aspects of TMT diversity leading to ambidextrous decisions. However, we

acknowledge the omission of other possible diversity factors, e.g., gender and education diversity among TMT members (cf. Su et al., 2019) due to data availability and our consideration of the sample requirements for performing fsQCA. We expect that future research can employ varied research methods (e.g., surveys, interviews) to introduce more micro-foundations factors that can affect ambidextrous decisions.

Finally, we performed our analysis on emerging market firms from a single country: China. Although our results from the Chinese sample are robust, and using a single-country sample (e.g., China or India) to represent EE firms is common in the IB literature (for example, research articles related to EE firms in leading IB journals), questions about generalizability cannot be ignored. Despite being the locus of micro-foundation of ambidextrous FDI, including both the values and cognitive base of TMT members, the study does not consider the culture influences on TMT members' mindset formation (cf. Ji & Dimitratos, 2013). For example, Confucianism has dominated Chinese society for a long period, which means that Confucianism has become ingrained in Chinese mindsets. Confucian philosophy values the importance of 'doctrine of the mean thought' (*Zhongyong* rationality), which has a certain similarity with the nature of ambidextrous decisions. Hence results from China may differ from findings from other emerging countries where 'doctrine of the mean thought' may not be a dominant value. Future researchers should seek to replicate our study in other countries and regions, aiming to ensure generalizability. The propositions drawn from this study could also be further tested in developed countries' contexts to compare the differences in the TMT values and cognitive bases of FDI behaviors between EE firms and MNEs.

## CONCLUSION

To summarize focusing on the upper echelons theory, this study investigates the micro-foundation of EE firms' ambidextrous FDI through uncovering the configurations of TMT's incentive and cognitive factors. The three configurations associated with a high level of ambidextrous FDI highlight the equal importance of managerial incentive and cognitive factors and identify the detailed interactions between these two types of factors. These findings provide a fresh lens toward ambidextrous FDI by developing mid-range theoretical insights and offer implications for EE firms by identifying equifinal configurations of managerial incentive and cognitive factors.

## NOTES

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[1] Results are available in the online version.

**APPENDIX I**  
**Truth Table Based on the Fuzzy-Set Data Matrix**

Managerial Incentive Factors			Managerial Cognitive Factors			High degree of ambidextrous FDI	Number	Raw consistency	PRI
Managerial Ownership	TMT Duality	TMT Tenure	Functional Diversity	Age Diversity	Foreign Exp. Diversity				
0	1	0	0	0	0	1	1	1	1
1	1	1	0	0	0	1	1	0.99	0.97
0	1	0	1	0	1	1	1	0.9S	0.96
1	1	1	0	1	0	1	2	0.9S	0.96
1	0	1	1	0	1	1	2	0.97	0.95
1	1	0	1	0	0	1	2	0.96	0.94
1	1	0	1	0	1	1	1	0.95	0.89
1	1	1	1	0	0	1	2	0.95	0.91
0	0	1	0	0	0	1	2	0.94	0.92
0	1	1	1	0	1	1	1	0.94	0.89
1	1	1	1	1	0	1	1	0.93	0.89
0	0	0	0	1	1	1	1	0.911	0.83
0	1	1	1	0	0	1	2	0.83	0.76
0	0	0	1	1	0	1	2	0.83	0.73
0	1	1	0	0	1	1	1	0.82	0.71
0	0	0	0	1	0	1	1	0.82	0.73
1	1	0	0	1	1	1	2	0.81	0.60
0	1	0	1	0	0	0	3	0.73	0.56
0	0	1	0	1	0	0	1	0.69	0.51
0	0	0	0	0	0	0	1	0.69	0.61
0	0	1	1	1	0	0	2	0.61	0.38
0	0	1	0	1	1	0	5	0.59	0.45
0	0	0	1	0	0	0	5	0.56	0.45

Note: PRI = proportional reduction in consistency.

**REFERENCES**

Backes-Gellner, U., & Veen, S. 2013. Positive effects of ageing and age diversity in innovative companies—Large-scale empirical evidence on company productivity. *Human Resource Management Journal*, 23(3): 279–295.

Bantel, K. A., & Jackson, S. E. 1989. Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal*, 10(1S): 107–124.

Barkema, H. G., & Shvyrkov, O. 2007. Does top management team diversity promote or hamper foreign expansion? *Strategic Management Journal*, 28(7): 663–680.

Beckman, C. M., & Haunschild, P. R. 2002. Network learning: The effects of partners’ heterogeneity of experience on corporate acquisitions. *Administrative Science Quarterly*, 47(1): 92–124.

Buckley, P. J., & Casson, M. 1976. *The future of the multinational enterprise*. London, UK: Springer.

Campbell, J. T., Sirmon, D. G., & Schijven, M. 2016. Fuzzy logic and the market: A configurational approach to investor perceptions of acquisition announcements. *Academy of Management Journal*, 59(1): 163–187.

Cannella, A. A., Park, J., & Lee, H. 2008. Top management team functional background diversity and firm performance: Examining the roles of team member colocation and environmental uncertainty. *Academy of Management Journal*, 51(4): 768–784.

- Carmeli, A., & Halevi, M. Y. 2009. How top management team behavioral integration and behavioral complexity enable organizational ambidexterity: The moderating role of contextual ambidexterity. *The Leadership Quarterly*, 20(2): 207–218.
- Carpenter, M. A., & Sanders, W. G. 2004. The effects of top management team pay and firm internationalization on MNC performance. *Journal of Management*, 30(4): 509–528.
- Chen, L., Li, Y., & Fan, D. 2018. How do emerging multinationals configure political connections across institutional contexts? *Global Strategy Journal*, 8(3): 447–470.
- Chittoor, R., Aulakh, P. S., & Ray, S. 2019. Microfoundations of firm internationalization: The owner CEO effect. *Global Strategy Journal*, 9(1): 42–65.
- Choi, Y., Cui, L., Li, Y., & Tian, X. 2020. Focused and ambidextrous catch-up strategies of emerging economy multinationals. *International Business Review*, 29(6): 101567.
- Chung, W., & Alcácer, J. 2002. Knowledge seeking and location choice of foreign direct investment in the United States. *Management Science*, 48(12): 1534–1554.
- Coffee, J. C. J. 1998. Future as history: The prospects for global convergence in corporate governance and its implications. *Northwestern University Law Review*, 93(3): 641–707.
- Coviello, N., Kano, L., & Liesch, P. W. 2017. Adapting the Uppsala model to a modern world: Macro-context and microfoundations. *Journal of International Business Studies*, 48(9): 1151–1164.
- Cui, L., Fan, D., Liu, X., & Li, Y. 2017. Where to seek strategic assets for competitive catch-up? A configurational study of emerging multinational enterprises expanding into foreign strategic factor markets. *Organization Studies*, 38(8): 1059–1083.
- Dunn, P. 2004. The impact of insider power on fraudulent financial reporting. *Journal of Management*, 30(3): 397–412.
- Dwivedi, P., Joshi, A., & Misangyi, V. F. 2018. Gender-inclusive gatekeeping: How (mostly male) predecessors influence the success of female CEOs. *Academy of Management Journal*, 61(2): 379–404.
- Fan, D., Cui, L., Li, Y., & Zhu, C. J. 2016. Localized learning by emerging multinational enterprises in developed host countries: A fuzzy-set analysis of Chinese foreign direct investment in Australia. *International Business Review*, 25(1): 187–203.
- Felin, T., Foss, N. J., & Ployhart, R. E. 2015. The microfoundations movement in strategy and organization theory. *Academy of Management Annals*, 9(1): 575–632.
- Finkelstein, S., & Hambrick, D. C. 1990. Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion. *Administrative Science Quarterly*, 35(3): 484–503.
- Fiss, P. C. 2011. Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54(2): 393–420.
- Foss, N. J., & Pedersen, T. 2019. Microfoundations in international management research: The case of knowledge sharing in multinational corporations. *Journal of International Business Studies*, 50: 1594–1621.
- García-García, R., García-Canal, E., & Guillén, M. F. 2017. Rapid internationalization and long-term performance: The knowledge link. *Journal of World Business*, 52(1): 97–110.
- García-Granero, A., Fernández-Mesa, A., Jansen, J. J. P., & Vega-Jurado, J. 2018. Top management team diversity and ambidexterity: The contingent role of shared responsibility and CEO cognitive trust. *Long Range Planning*, 51(6): 881–893.
- Gavetti, G. 2012. PERSPECTIVE—Toward a behavioral theory of strategy. *Organization Science*, 23(1): 267–285.
- Gibson, C. B., & Birkinshaw, J. 2004. The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2): 209–226.
- Goll, I., & Rasheed, A. A. 2005. The relationships between top management demographic characteristics, rational decision making, environmental munificence, and firm performance. *Organization Studies*, 26(7): 999–1023.
- Hambrick, D. C. 2007. Upper echelons theory: An update. *Academy of Management Review*, 32(2): 334–343.
- Hambrick, D. C., Cho, T. S., & Chen, M.-J. 1996. The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly*, 41(4): 659–684.
- Hambrick, D. C., Humphrey, S. E., & Gupta, A. 2015. Structural interdependence within top management teams: A key moderator of upper echelons predictions. *Strategic Management Journal*, 36(3): 449–461.

- Hambrick, D. C., & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2): 193–206.
- Heyden, M. L. M., Oehmichen, J., Nichting, S., & Volberda, H. W. 2015. Board background heterogeneity and exploration-exploitation: The role of the institutionally adopted board model. *Global Strategy Journal*, 5(2): 154–176.
- Hsu, C. W., Lien, Y. C., & Chen, H. 2013. International ambidexterity and firm performance in small emerging economies. *Journal of World Business*, 48(1): 58–67.
- Hymer, S. 1976. *The international operations of national firms: A study of direct foreign investment*. Cambridge, MA: MIT Press.
- Ireland, R. D., & Webb, J. W. 2007. A multi-theoretic perspective on trust and power in strategic supply chains. *Journal of Operations Management*, 25(2): 482–497.
- Jensen, M. C., & Meckling, W. H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4): 305–360.
- Ji, J., & Dimitratos, P. 2013. Confucian dynamism and Dunning's framework: Direct and moderation associations in internationalized Chinese private firms. *Journal of Business Research*, 66(12): 2375–2382.
- Johnson, J. L., Daily, C. M., & Ellstrand, A. E. 1996. Boards of directors: A review and research agenda. *Journal of Management*, 22(3): 409–438.
- Krause, R., Semadeni, M., & Cannella, A. A. 2014. CEO duality. *Journal of Management*, 40(1): 256–286.
- Larcker, D. F. 1983. The association between performance plan adoption and corporate capital investment. *Journal of Accounting and Economics*, 5: 3–30.
- Levinthal, D. A., & March, J. G. 1993. The myopia of learning. *Strategic Management Journal*, 14(S2): 95–112.
- Li, J., Li, Y., & Shapiro, D. 2012. Knowledge seeking and outward FDI of emerging market firms: The moderating effect of inward FDI. *Global Strategy Journal*, 2(4): 277–295.
- Li, Y., & Cui, L. 2018. The influence of top management team on Chinese firms' FDI ambidexterity. *Management and Organization Review*, 14(3): 513–542.
- Liu, Y., Sarala, R. M., Xing, Y., & Cooper, S. C. L. 2017. Human side of collaborative partnerships. *Group & Organization Management*, 42(2): 151–162.
- Locke, K., Golden-Biddle, K., & Feldman, M. S. 2008. Perspective-making doubt generative: Rethinking the role of doubt in the research process. *Organization Science*, 19(6): 907–918.
- Lorsch, J. W. 1989. *Pawns or potentates: The reality of America's boards*. Boston, MA: Harvard Business School Press.
- Lu, J., Liu, X., & Wang, H. 2011. Motives for outward FDI of Chinese private firms firm resources, industry dynamics, and government policies. *Management and Organization Review*, 7(2): 223–248.
- Luo, Y., & Rui, H. 2009. An ambidexterity perspective toward multinational enterprises from emerging economies. *Academy of Management Perspectives*, 23(4): 49–70.
- Lyles, M., Li, D., & Yan, H. 2014. Chinese outward foreign direct investment performance: The role of learning. *Management and Organization Review*, 10(3): 411–437.
- Maitland, E., & Sammartino, A. 2015. Managerial cognition and internationalization. *Journal of International Business Studies*, 46(7): 733–760.
- Menguc, B., & Auh, S. 2008. The asymmetric moderating role of market orientation on the ambidexterity–firm performance relationship for prospectors and defenders. *Industrial Marketing Management*, 37(4): 455–470.
- Meyer, K. E. 2015. What is “strategic asset seeking FDI”? *Multinational Business Review*, 23(1): 57–66.
- Meyer, A. D., Tsui, A. S., & Hinings, C. R. 1993. Configurational approaches to organizational analysis. *Academy of Management Journal*, 36(6): 1175–1195.
- Meyer, K. E., Wright, M., & Pruthi, S. 2009. Managing knowledge in foreign entry strategies: A resource-based analysis. *Strategic Management Journal*, 30(5): 557–574.
- Misangyi, V. F., & Acharya, A. G. 2014. Substitutes or compliments? A configurational examination of corporate governance mechanisms. *Academy of Management Journal*, 57(6): 1681–1705.
- Misangyi, V. F., Greckhamer, T., Furnari, S., Fiss, P. C., Crilly, D., & Aguilera, R. 2017. Embracing causal complexity: The emergence of a neo-configurational perspective. *Journal of Management*, 43(1): 255–282.

- Narula, R., & Zanfei, A. 2004. Globalization of innovation: The role of multinational enterprises. In J. Fagerberg, D. C. Mowery, & R. R. Nelson (Eds.), *Oxford handbook of innovation*: 318–345. Oxford, UK: Oxford University Press.
- Nielsen, B. B., & Nielsen, S. 2011. The role of top management team international orientation in international strategic decision-making: The choice of foreign entry mode. *Journal of World Business*, 46(2): 185–193.
- Nuruzzaman, N., Gaur, A. S., & Sambharya, R. B. 2019. A microfoundations approach to studying innovation in multinational subsidiaries. *Global Strategy Journal*, 9(1): 92–116.
- O'Reilly, C. A., & Tushman, M. L. 2008. Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in Organizational Behavior*, 28: 185–206.
- Oxelheim, L., Gregorič, A., Randøy, T., & Thomsen, S. 2013. On the internationalization of corporate boards: The case of Nordic firms. *Journal of International Business Studies*, 44(3): 173–194.
- Peng, M. W. 2012. The global strategy of emerging multinationals from China. *Global Strategy Journal*, 2(2): 97–107.
- Qian, C., Cao, Q., & Takeuchi, R. 2013. Top management team functional diversity and organizational innovation in China: The moderating effects of environment. *Strategic Management Journal*, 34(1): 110–120.
- Ragin, C. C. 2008. *Redesigning social inquiry: Fuzzy sets and beyond*. Chicago, IL: University of Chicago Press.
- Richard, O. C., & Shelor, R. M. 2002. Linking top management team age heterogeneity to firm performance: Juxtaposing two mid-range theories. *The International Journal of Human Resource Management*, 13(6): 958–974.
- Rogan, M., & Mors, M. L. 2014. A network perspective on individual-level ambidexterity in organizations. *Organization Science*, 25(6): 1860–1877.
- Sambharya, R. B. 1996. Foreign experience of top management teams and international diversification strategies of U.S. multinational corporations. *Strategic Management Journal*, 17(9): 739–746.
- Shen, W., & Cannella, A. A. 2002. Power dynamics within top management and their impacts on CEO dismissal followed by inside succession. *Academy of Management Journal*, 45(6): 1195–1206.
- Shen, W., & Cho, T. S. 2005. Exploring involuntary executive turnover through a managerial discretion framework. *Academy of Management Review*, 30(4): 843–854.
- Steinbach, A., Gamache, D. L., & Johnson, R. E. 2018. Don't get it misconstrued: Construal level shifts and flexibility in the upper Echelons. *Academy of Management Review*, 44(4): 871–895.
- Su, Y., Fan, D., & Rao-Nicholson, R. 2019. Internationalization of Chinese banking and financial institutions: A fuzzy-set analysis of the leader-TMT dynamics. *The International Journal of Human Resource Management*, 30(14): 2137–2165.
- Tajfel, H. 1982. Social psychology of intergroup relations. *Annual Review of Psychology*, 33(1): 1–39.
- Taylor, A., & Helfat, C. E. 2009. Organizational linkages for surviving technological change: Complementary assets, middle management, and ambidexterity. *Organization Science*, 20(4): 718–739.
- Tihanyi, L., Ellstrand, A. E., Daily, C. M., & Dalton, D. R. 2000. Composition of the top management team and firm international diversification. *Journal of Management*, 26(6): 1157–1177.
- Wiersema, M. F., & Bantel, K. A. 1992. Top management team demography and corporate strategic change. *Academy of Management Journal*, 35(1): 91–121.
- Yan, Z. J., Zhu, J. C., Fan, D., & Kalfadellis, P. 2018. An institutional work view toward the internationalization of emerging market firms. *Journal of World Business*, 53(5): 682–694.
- Zahra, S. A. 1996. Technology strategy and financial performance: Examining the moderating role of the firm's competitive environment. *Journal of Business Venturing*, 11(3): 189–219.
- Zheng, W., Shen, R., Zhong, W., & Lu, J. 2020. CEO Values, firm long-term orientation, and firm innovation: Evidence from Chinese manufacturing firms. *Management and Organization Review*, 16(1): 69–106.
- Zhu, H., & Zhu, Q. 2016. Mergers and acquisitions by Chinese firms: A review and comparison with other mergers and acquisitions research in the leading journals. *Asia Pacific Journal of Management*, 33(4): 1107–1149.

Zimmermann, A., Raisch, S., & Cardinal, L. B. 2018. Managing persistent tensions on the frontline: A configurational perspective on ambidexterity. *Journal of Management Studies*, 55(5): 739–769.

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