Strategic Asset Seeking and Innovation Performance: The Role of Innovation Capabilities and Host Country Institutions

Lili Mi 1, Xiao-Guang Yue 2,4,9, Xue-Feng Shao 5, Yuanfei Kang 6 and Yulong Liu 6

1 Department of Business Strategy and Innovation, Griffith Business School, Griffith University, Brisbane, QLD 4111, Australia; lili.mi@griffith.edu.au
2 Department of Computer Science and Engineering, School of Sciences, European University Cyprus, Nicosia 1516, Cyprus
3 Center for Research and Innovation in Business Sciences and Information Systems, Polytechnic Institute of Porto, 4610-156 Felgueiras, Portugal
4 Rattanakosin International College of Creative Entrepreneurship, Rajamangala University of Technology Rattanakosin, Nakhon Pathom 73170, Thailand
5 Discipline of International Business, University of Sydney, Sydney, NSW 2006, Australia; xuefeng.shao@sydney.edu.au
6 School of Management, Massey Business School, Massey University, Albany 0632, New Zealand; y.kang@massey.ac.nz (Y.K.); y.d.liu@massey.ac.nz (Y.L.)
* Correspondence: x.yue@external.euc.ac.cy

Received: 5 February 2020; Accepted: 28 February 2020; Published: 2 March 2020

Abstract: Peering through the lenses of the strategic intent perspective and strategic fit paradigm, in this study, we seek to examine the contingent conditions under which emerging market multinational enterprises (EMNEs) with strategic asset seeking (SAS) intent can achieve improved innovation performance. We developed a contingency model of how the relationship between SAS intent and innovation performance is contingent on the moderating effects of firms’ innovation capability and institutional quality in the host country, as well as on the synergistic interaction of independent moderating effects from these two factors. We combined survey data from 320 Chinese MNEs with archival data to test our hypotheses. Our results show that SAS intent can lead to positive innovation performance when (a) the investing firm has developed high levels of innovation capability, and (b) synergistic interactions exist between institutional quality and firms’ innovation capability regarding their moderating effect on the SAS intent-innovation performance link.

Keywords: strategic asset seeking intent; foreign direct investment; innovation performance; strategic fit; emerging market multinational enterprises

1. Introduction

Emerging market multinational enterprises (EMNEs) have been actively engaged in outward foreign direct investment (FDI), especially since the beginning of this century (UNCTAD 2017). Extant research has suggested that EMNE FDI is strongly motivated by strategic intent to achieve specific goals, such as acquiring strategic assets, securing supplies of natural resources, and achieving a superior market position (Cui and Jiang 2009; Deng 2009; Kang and Liu 2016; Kolstad and Wiig 2012). It is also clear that strategic asset seeking (SAS) intent has played a significant role in EMNEs’ attempts to address their disadvantages in competing with their counterparts from developed countries (Cui et al. 2014; Elia and Santangelo 2017; Meyer 2015; Nicholson and Salaber 2013). Previous research on strategic
asset seeking FDI has primarily focused on the nature of the strategic intent (Deng 2009; Rui and Yip 2008); the antecedents and driving forces of SAS intent (Cui et al. 2014; Yang et al. 2014); and the influence of SAS intent on FDI strategies, such as ownership structure (Cui and Jiang 2009), entry mode (Elango and Pattanaik 2011; Madhok and Keyhani 2012), and location choice (Cui et al. 2017).

Although these research efforts have advanced the international business literature, our knowledge regarding the performance implications of the SAS intent and the conditions under which the EMNEs are able to achieve their SAS intent is still limited (Luo and Zhang 2016) because these important issues have not yet received adequate research attention. This research gap is significant because we know little about the relationship between firms’ capabilities and the performance implications of SAS intent; even less is known about whether and how institutional quality in the host country affects EMNEs’ innovation performance in the home country when they are motivated by SAS intent for their FDI activities. An intent or a strategy cannot readily lead to a superior performance outcome unless the contingent conditions for the intent can be met (He et al. 2015; Zajac et al. 2000). For EMNEs, the SAS intent is generated by their need to gain access to intangible assets that are not available at home (Deng 2009; Elia and Santangelo 2017). The sophisticated markets for intangible assets such as technology and management know-how are mainly located in developed countries—where EMNEs face daunting challenges to operate given their embeddedness inherited from their home operations (Buckley et al. 2016; Cuervo-Cazurra and Genc 2008). How the SAS intent of EMNEs can improve their innovation remains a challenging question for both management practice and academic research (Meyer 2015).

To address this research gap, we drew on the strategic intent literature (Rui and Yip 2008) and strategic fit paradigm (Venkatraman 1989; Zajac et al. 2000) to examine the contingent conditions for the link between SAS intent and innovation performance. The strategic fit perspective posits that a good fit between two or more factors, either internal or external to an organization, will result in improvement of organizational performance (Yin and Zajac 2004; Zajac et al. 2000). This perspective enables us to go beyond merely asking whether SAS intent strengthens the innovation performance of the focal firm, and instead spurs us to theorize how differences in the alignment of the SAS intent with both internal and external factors can lead to differential innovation performance for EMNEs. We focus on the moderating role played by the EMNEs’ innovation capability as the internal factor and institutional quality in the host country as the external factor. Moreover, we contextualize our analysis by examining Chinese MNEs because improving innovation performance through a pursuit of SAS intent in foreign markets is a particularly salient feature of Chinese MNEs.

Our study contributes to the research on EMNE SAS intent in several ways: First, by combining the SAS intent and strategic fit perspectives, we move from merely investigating the antecedents and drivers of the decision-making process of SAS FDI to the important implications of SAS intent on EMNE innovation performance. Through advocating an integrative and interactive approach, we explore the conditions under which SAS intent can influence an investing EMNE’s innovation performance. Drawing on the strategic fit perspective, we suggest that the direct link between SAS intent and innovation performance is dependent on the contingent conditions in terms of the alignment of the SAS intent with firms’ innovation capability and institutional quality in a host country. Prior research on strategic management has emphasized the importance of strategic fit in achieving better performance (He et al. 2015; Yin and Zajac 2004; Zajac et al. 2000). However, research has not yet applied the notion of fit to the examination of the conditions under which EMNEs are able to achieve their SAS intent, which was suggested by Luo and Zhang (2016) as an important research direction. Our study represents a novel attempt to explicitly examine the nature and performance implications of the fit among SAS intent, innovation capability, and institutional quality in the host country in the context of Chinese MNEs.

Second, we address the issue of how host country institutional quality can influence innovation performance in the home country by investigating the interdependent moderating effects of institutional quality and innovation capability on the link between SAS intent and innovation performance. Prior research has shown that host country institutions can be a source of competitive advantage for MNEs to outperform their counterparts that remain at home (Kim et al. 2010). Through
exploring the synergistic moderating effects of institutional quality and innovation capability, we explicitly address the arguments that only EMNEs that have a high level of innovation capability can gain such institutional benefits because EMNEs differ in their innovation capability to internalize the external institutional advantage. Thus, this study provides useful guidance to business practitioners and policy makers in making FDI decisions.

2. Theoretical Foundation

2.1. Strategic Intent and Strategic Asset Seeking FDI

Strategic intent refers to the managerial mentality of focusing on future opportunities and long-term objectives that are beyond short-term strategic planning (Cui et al. 2014; Hamel and Prahalad 1989). The concept first emerged in the work of Hamel and Prahalad (1989), who described the “winning” strategy of Japanese companies, and it soon received significant attention from researchers in strategic management and international business (Hart 1992; Hitt et al. 1995; Lovas and Ghoshal 2000; Rui and Yip 2008). More recently, the strategic intent perspective has been intensively used to examine international expansion by firms from emerging and transition economies as they undertake the internationalization process as a strategic means to catch up with their rivals in the global markets (Cui and Jiang 2009; Luo et al. 2011; Rui and Yip 2008). Strategic intent for a firm’s involvement in FDI is expressed in the strategic motives for its FDI behavior—market seeking, natural resource seeking, efficiency seeking, and SAS (Cui et al. 2014, 2017). Distinctions between different types of strategic intent are highly important because different intents determine different strategic orientations. Market-seeking FDI aims to seek new market opportunities by expanding in foreign markets (Dunning 2001). Natural resource-seeking FDI aims to acquire natural resources that are not available at home or that are available through FDI at a lower cost. Efficiency seeking takes advantage of the low-cost inputs and/or economies of scale and scope offered by a host country (Dunning and Lundan 2008). Although these three types of FDI can incrementally contribute to an EMNE’s global competitiveness, they are not sufficient to allow EMNEs to catch up with global leaders who possess superior strategic assets (Cui et al. 2017).

In contrast, by directly addressing the ownership disadvantage of EMNEs, SAS FDI represents the competitive actions of EMNEs aiming for a long-term catch-up strategy. Strategic assets form “the set of difficult to trade and imitate, scarce, appropriable and specialized resources and capabilities that bestow the firm’s competitive advantage” (Amit and Schoemaker 1993, p. 36). Thus, SAS intent has been considered an important strategic intent that drives EMNEs to offset their competitive disadvantage and leverage their unique ownership advantage (Lu et al. 2011; Luo and Tung 2007; Luo et al. 2011; Rui and Yip 2008; Wright et al. 2005).

SAS intent has appeared mainly in the literature on EMNEs to explain their unconventional internationalization path—for instance, going global “in the absence of significantly superior technological and managerial resources” (Peng 2012, p. 96). When motivated by SAS intent, a FDI project would be undertaken primarily to augment the capability of the investing firm, rather than to exploit its existing capability (Meyer 2015). EMNEs are engaging in SAS for three main reasons: First, from the resource-based view (Barney 1991; Wernerfelt 1984) and the organizational learning perspective (Barkema and Vermeulen 1998), SAS firms are motivated to acquire advanced technologies, managerial skills, and established brand names that are embodied in foreign firms. They use FDI as a vehicle to recombine capabilities to compete with rivals globally as well as in the domestic market (Deng 2009). Second, institutions in the emerging markets are characterized by inefficient legal frameworks and weak intellectual property rights protection that discourage firms’ R&D activities (Rui and Yip 2008). To avoid institutional constraints, MNEs intend to invest in R&D-intensive projects overseas or buy strategic assets directly from advanced MNEs (Luo and Tung 2007). Lastly, EMNEs are actively involved in SAS FDI to take advantage of home government policies and incentives. In emerging economies, a company’s economic behavior is still largely influenced by government policies (Lu et al. 2011). The government provides strong incentives for firms who are aligned with its policies. For example, from as early as the implementation of the “go
global” policy, the Chinese government has increasingly provided more support (e.g., access to capital, tax concessions, and other incentives) to R&D projects and brand development (Buckley et al. 2008).

2.2. Strategic Fit

Fit has long been a central concept in a firm’s strategy formulation (Toulan et al. 2006). The strategic fit paradigm further suggests that the alignment between the business environment and firms’ strategic goals has a positive impact on firm performance (Venkatraman 1989; Venkatraman and Prescott 1990; He et al. 2019). This is also consistent with the contingency theory that argues organizational performance is largely determined by the level of congruence or fit between a firm’s strategic decisions and contextual factors (Hofer 1975). Regarding international business, MNEs strive to align their organizational goals with the external environment to achieve strategic fit. Prior research has investigated the fit between organizational strategy, host country environment, international strategies, firm-specific resources, and firm ownership (Banalieva and Sarathy 2011; He et al. 2015; Lin 2014; Tian and Slocum 2014). Although the concept of fit can take many forms, this study is interested in how EMNE innovation performance is contingent on the interactions between focal firms’ SAS intent, innovation capability, and institutional quality in the host country.

Unlike market-seeking and natural resource-seeking motives that induce firms to go to countries with large markets and abundant natural resources regardless of the development level of the country, SAS firms are more likely to go to industrialized countries that are endowed with more knowledge assets and strong national innovation systems (De Beule and Duanmu 2012; Elia and Santangelo 2017; Zheng et al. 2016). However, in these countries, EMNEs encounter daunting challenges such as the reluctance of the host firms to sell core competencies (Rugman 2010), and the differences in institutional frameworks and cultures between home and host countries, which result in the liability of foreignness (Pattnaik et al. 2015; Zheng et al. 2016). With a SAS intent, the investing EMNE aims to strengthen its competitiveness by building up its firm-specific capability through FDI. The investing firm’s existing capability to absorb knowledge and produce new products or services is another challenge EMNEs face because they often lack these capabilities. Therefore, simply engaging in SAS FDI does not guarantee success: it is the fit between the intent, the environment, and firms’ capabilities that ensures improved innovation performance for the investing firm. To better understand what contributes to the improvement of the innovation performance of MNEs from an emerging economy—China—our study integrates the strategic intent perspective and strategic fit paradigm to examine the interactions between firms’ SAS intent, innovation capability, and institutional quality in the host country.

3. Hypotheses Development

3.1. Innovation Capability, SAS Intent, and Innovation Performance

In contrast to MNEs from developed countries, which transfer firms’ resources to subsidiaries, MNEs from emerging economies often transfer knowledge from subsidiaries to parent firms. This is especially true for SAS firms whose purpose is to acquire advanced technologies and knowledge-based skills (Li et al. 2016; Pangarkar and Yuan 2009). To turn external resources such as knowledge from subsidiaries into internal knowledge assets and further transform them into innovation performance, firms need to develop and possess dynamic capabilities because dynamic capabilities enable firms to build and renew the acquired resources and reconfigure them as needed to innovate and respond to changes in the market (Teece 2014; Li et al. 2020). Following the dynamic capability theory, dynamic capabilities are essential to performance improvement because they enable firms to translate their resources into competitive advantages (Makadok 2001). As a specific type of dynamic capability, innovation capability is particularly important for product and process innovation (Elia and Santangelo 2017). Innovation capability captures firms’ ability to create new ideas to produce new products and/or improve their processes to facilitate better results (Rangone 1999; Taherparvar et al. 2014). As a type of firm-specific advantage, innovation capability can influence firms’ strategic
behavior such as international expansion and organizational learning (Menguc and Auh 2006; Berghman et al. 2012). Unlike explicit knowledge, which is easily accessible and transferable, strategic assets acquired from FDI are more likely to consist of tacit knowledge that is deeply embedded in organizational routines (Zheng et al. 2016). Thus, when an investing firm is involved in SAS FDI, knowledge transfer does not occur automatically. From the organizational learning perspective, MNEs must have enough firm-specific advantages to enable effective knowledge learning and transfer (Dutta and Kumar 2009).

Firms with stronger innovation capabilities would be more adept at understanding and absorbing new knowledge (Suh et al. 2013; Zheng et al. 2016). Moreover, firms’ innovation capability would facilitate the combination of existing knowledge and the new knowledge gained from their SAS behavior, which would in turn enhance firms’ innovation performance (Suh et al. 2013). Empirical evidence from the Chinese context has also demonstrated that when investing firms possess a high level of technology and production-related capability, they are more involved in and more likely to succeed in searching for advanced strategic assets overseas through SAS FDI (Zheng et al. 2016). Thus, we propose the following hypothesis:

**Hypothesis 1 (H1).** The innovation capability of EMNEs positively moderates the relationship between SAS intent and innovation performance, such that SAS intent leads to improved innovation performance when the EMNE has a higher level of innovation capability.

### 3.2. Institutional Quality, SAS Intent, and Innovation Performance

The MNE institutional approach emphasizes the essential role of institutions in supporting the effective functioning of market mechanisms, so that firms can engage in business activities without incurring undue costs and/or risks (Kostova and Hult 2016). Market-supporting institutions in the host country have a significant impact on FDI activities (Buckley and Munjal 2017; Buckley et al. 2016). This institutional regime includes the legal framework and its enforcement in terms of investment restrictions, financial and taxation regimes, business freedoms, and property rights (Meyer et al. 2009). Institutional arrangements with a high level of economic freedom provide support for voluntary business transactions, and thus are often considered “strong” or “good”; in contrast, institutional regimes with low levels of economic freedom are regarded as “weak” or “poor.” There is a general tendency for foreign investors to prefer a host country with a strong regulatory regime represented by a high level of economic freedom (Henisz and Zelner 2005) because foreign firms are more likely to be affected by discriminatory and restrictive policies in host countries with lower levels of economic freedom.

In contrast, the relationship between institutional quality and FDI activities by EMNEs can be more complex than similar interactions of MNEs from developed countries. Unlike Western firms, EMNEs are believed to be more attracted to and perform better in weak institutional environments due to the familiarity of operating at home and in other emerging markets with poor governance structures (Buckley and Munjal 2017; Buckley et al. 2016; Cuervo-Cazurra and Genc 2008). However, this view is less valid when applied to EMNE SAS FDI because weak institutional environments function as an institutional barrier for firms’ effectiveness in accessing external knowledge (Lu et al. 2014; Schwens and Kabst 2011).

A high level of institutional quality facilitates EMNEs’ pursuit of SAS, although they may suffer from liabilities of foreignness in developed countries due to unfamiliarity and discrimination in the new environment. A high-functioning and well-developed institutional structure can reduce bureaucracy and provide easy access to information and innovative intermediaries (World Bank 2017; Wu et al. 2016b). More specifically, well-developed institutions with high transparency and accountability prevent government expropriation of investing firms; political stability reduces uncertainty and in turn provides a stable environment for business operations and innovation; an effective government can enhance knowledge diffusion through well-developed educational services that foster high-quality and experienced local staff; a well-developed regulatory framework reduces transaction and agency costs and helps SAS firms overcome information asymmetries; and a well-
defined and transparent rule of law is easier to follow and reduces costs for SAS firms (Schwens and Kabst 2011; Wu et al. 2016b). Finally, an environment free from corruption facilitates entrepreneurship and innovative activities. Empirical evidence suggests that EMNEs’ decisions to invest in developed countries are highly contingent on host countries’ well-established market-supporting institutions (Lu et al. 2014). This effect should be higher for SAS firms, which are less experienced regarding operating in developed countries. Well-developed host country institutions enhance SAS firms’ knowledge access capabilities and efficiency by providing an environment featuring stability, information transparency, and regulation clarity, all of which indirectly link to a higher level of EMNE SAS goal attainment in unfamiliar developed countries. Drawing upon these arguments, we propose the following hypothesis:

**Hypothesis 2 (H2).** Institutional quality in a host country positively moderates the direct relationship between SAS intent and innovation performance, such that SAS intent leads to improved innovation performance when SAS FDI operates in a host country with high institutional quality.

### 3.3. Synergistic Interaction of Innovation Capability and Institutional Quality on Innovation Performance

Through the strategic fit lens, good performance is the result of a fit between the internal and external conditions (Yin and Zajac 2004; Zajac et al. 2000). Having discussed the role played by institutional quality in a host country and firm innovation capability on influencing firm innovation performance, we now turn our attention to the issue of how investing firms address the opportunity for integrating beneficial internal and external conditions to effectively realize SAS intent. We propose a synergistic approach that emphasizes the complementarities of high innovation capability and favorable host country institutions. For example, we examine how stronger institutional development can help focal firms more efficiently absorb external knowledge from the host country market and thus transfer their innovation capability into innovation performance.

More specifically, stronger institutional development in a host country enables SAS firms to acquire better opportunities for gaining access to advanced technologies, broadening their innovation networks, and benefitting from local innovation intermediaries (Wu et al. 2016a). In such environments, focal firms can more effectively capitalize on their innovation capabilities by accelerating absorption and utilization of knowledge embedded in external innovation. In contrast, weak institutions impose barriers to the exchange of financial, innovation, and research resources (Hoskisson et al. 2000; Ramamurti 2000), so focal firms’ innovation capabilities are less effective in generating improved innovation performance by recognizing, assimilating, and exploiting external knowledge.

Similarly, a higher level of innovation capability enables firms to make full use of their preferred institutional environment when engaging in strategic behavior such as technological development, organizational learning, and research collaboration for the pursuit of SAS intent (Berghman et al. 2012; Menguc and Auh 2006; Spring and Araujo 2013). Generally, going abroad with ownership disadvantages is a significant characteristic of the internationalization of Chinese firms, and a low level of innovation capability is a major cause of the ownership disadvantage. However, there is still substantial variation among Chinese firms in terms of their innovation capability (Li et al. 2018). The level of innovation capability determines the extent to which a firm responds to the institutional forces. Being armed with a high level of innovation capability, firms are able to adopt a more proactive approach in making use of the innovation provided by the external environment, whereas firms possessing a lower level of innovation capability are more likely to take a reactive or even passive approach (Ren et al. 2015).

Therefore, higher levels of institutional development and internal innovation capability can act synergistically to improve the SAS firm’s innovation performance through mutually reinforcing the effects of the external advantage provided by the institutional environment and the internal advantage presented by the firm’s innovation capability. Thus, we propose the following hypothesis:
Hypothesis 3 (H3). EMNE SAS intent leads to improved innovation performance when there are high levels of focal firm innovation capability and institutional quality in a host country.

The conceptual framework and associated hypotheses are summarized in Figure 1.

![Conceptual framework](image)

**Figure 1.** Conceptual framework. Note: The solid lines indicate the direct relationship and two-way moderation effects (H2 and H3), whereas the dotted lines represent the three-way moderation effect (H3).

4. Data and Methods

4.1. Sample and Data Collection

We tested our hypotheses using data sourced from a survey and from archival data on Chinese MNEs. We sourced survey-based data in this study from a questionnaire survey entitled “Survey on Current Conditions of and Intention for Outbound Investment by Chinese Enterprises,” which was conducted in 2010 by the China Council for the Promotion of International Trade (CCPIT) in cooperation with the United Nations Conference on Trade and Development (UNCTAD) and the European Commission’s (EC) Directorate-General for Trade and Development. CCPIT, established in May 1952, is the largest association in China for the promotion of trade and investment with nearly 70,000 member enterprises in China. It is an arm of the Chinese government and enterprises with the aim to operate in and promote foreign trade. As one of the co-operators with CCPIT, the EC is the standing executive body of the European Union (EU), with the function of implementing the EU Treaty and the decisions of EU Council, proposing legislative motions to the Council, supervising the carrying out of EU regulations, representing the EU in foreign affairs and trade negotiations, and setting up delegations in foreign countries. The other co-operator with CCPIT is UNCTAD, a subordinate organization of the United Nations, with the mission of promoting trade, investment, and development opportunities in developing countries as well as promoting the development-friendly integration of developing countries into the world economy. CCPIT, EC, and UNCTAD jointly designed the questionnaire. Surveys designed by CCPIT with the cooperation of other international institutions are widely used in academic studies and reports (Kang and Liu 2016; Liu et al. 2016; Luo et al. 2010; Tung 2007; UNCTAD 2006).

Regarding the data collection process, the distribution and collection of the survey was implemented through CCPIT’s 28 provincial branches in China, which ensured a smooth data collection process (CCPIT 2010). The sample for this survey was randomly selected, including CCPIT member and non-member enterprises that have been engaged in international trade and have annual revenues exceeding one million RMB. In total, the sample included 3000 Chinese firms in 28 provinces from a wide range of coastal, inland, and western regions in China and covered various industries, including agriculture, manufacturing, construction, and services, which ensured strong industrial and regional representativeness of the survey results (CCPIT 2010). In total, 1377 firms returned valid
questionnaires with a response rate of 45.9% (CCPIT 2010). After removing firms without FDI activities for pursuing SAS intent, our sample comprised 320 firms that have engaged in SAS through FDI.

The use of CCPIT survey data has three main advantages. First, all three organizations (CCPIT, EC, and UNCTAD) are reputable public institutions with extensive experience in conducting surveys and collaborating with other international bodies, which ensures the quality of the questionnaire design. Second, the authorized data collection from CCPIT guarantees that survey respondents are from high-level managerial positions and are familiar with the companies’ foreign investments. After completion, the respondents are also required to seal the questionnaire with a company stamp to make sure valid questionnaires are returned. Thus, use of a CCPIT survey minimizes conscious self-report bias and increases the validity of the survey answers. Third, one of the methods to reduce the likelihood of common method variance (CMV) is mixing the order of the questions (Chang et al. 2010). The pertinent questions needed for this study are placed in different parts of the questionnaire and mixed with other questions; consequently, this survey will reduce the chance of a respondent’s own mental models affecting their responses and, consequently, reduce the chance of CMV (Meyer and Su 2015).

The archival data we used came from three different sources. First, we collected the firm-level patent data for the sampled Chinese firms from the Chinese State Intellectual and Patent Office (SIPO) database (SIPO 2017), which provides the name of the applying company and date information for each patent. The SIPO database has been used in previous studies to collect patent data for firms’ innovation performance in China (Ren et al. 2015). Second, we collected country-level patent data from the World Intellectual Property Organization (WIPO 2017) that includes data on world intellectual property indicators of the sample countries. Existing studies have used the WIPO database to source country-level intellectual property indicators (Anderson et al. 2015; Ramasamy et al. 2012). Third, the political stability data is from the worldwide governance indicators (WGI) in the World Bank database (World Bank 2017). We used the world intellectual property indicators and WGI indicators in 2009 to control potential endogeneity. The measures are detailed in the next section. We merged these three data sources with the CCPIT survey data using the company names and country names.

Among the four data sources used in this study, the dependent variable is collected from the SIPO database, and the independent variables and control variables are data from the CCPIT survey and the WIPO and World Bank databases. The advantage of combining different data sources for dependent and explanatory variables further prevents our study from being subject to CMV (Chang et al. 2010).

4.2. Variables and Measures

4.2.1. Dependent Variable

Following prior studies (Ren et al. 2015; Piperopoulos et al. 2018; Wu et al. 2016a), we captured innovation performance by using the number of patent applications of the firm during the 6-year period from 2010 (the survey year) to 2016. These patent applications may come from innovations generated at home or from strategic assets acquired through FDI. Excluding the patent applications originating prior to the FDI activities, our measure captures the patent applications for a duration of 6 years rather than 1 single year to reflect the time lag of transforming the strategic assets acquired from FDI into actual patent applications. Patent data can accurately capture the intellectual property of a firm and therefore have been widely used to measure innovation performance (Adegbesan and Higgins 2011; Wu et al. 2016a; Piperopoulos et al. 2018; Ren et al. 2015; Salomon and Jin 2010).

4.2.2. Independent and Moderating Variables

We sourced data for our key independent variable (SAS intent of the investing firm) and two moderating variables (innovation capability, and institutional quality in a host country) from the CCPIT survey. Following prior studies (Cui et al. 2014; Lu et al. 2011), we used three survey items to
measure SAS intent established by the investing firm for its most important FDI project, and they are (a) gaining access to advanced technologies, (b) acquiring high-quality brands, and (c) gaining access to advanced management know-how. The Cronbach’s alpha of 0.81 suggests strong internal consistency and high reliability of the construct.

We took the measure for innovation capability as a moderating variable from prior studies (Christmann 2000; Saunila and Ukkonen 2012), and we operationalized it through questions from the CCPIT survey regarding the firm’s perceived ability in product innovation and process innovation in comparison with its competitors in the domestic market.

To operationalize the institutional quality of the host country, we obtained information from the CCPIT survey. Countries with high-quality institutions are characterized by their impartial governmental body, well-specified legal system, highly developed capital market, and regulatory framework that facilitates commerce between individuals and organizations (LiPuma et al. 2013). Following this rationale and previous study (Liu and Yu 2018), we measured the institutional quality of the host country along these four dimensions and operationalized this variable through four survey items in terms of the respondents’ perceptions regarding (a) the investment environment of foreign markets, (b) the tax system, (c) assistance from local host country authorities, and (d) assistance from unions. The Cronbach’s alpha value of 0.82 suggests strong internal consistency and high reliability of the construct. Santangelo and Meyer (2011) suggested that the subjectivity of perceptual measures could be an advantage because it is the decision makers’ views of the host country environment that influence their choice of foreign establishment mode. Overall, we measured these three survey-based variables using a 5-point Likert scale (1 = not important, 5 = very important).

4.2.3. Control Variables

We included firm-, industry-, and country-level control variables that might also affect firms’ innovation performance (Brouthers 2013; Mohr et al. 2014). We included firm size (the log-transformed total number of employees) and firm age the number of years since establishment (Hollender et al. 2017; Mohr et al. 2014). We included internationalization degree because it can influence firms’ learning capability and hence is related to innovation performance (Hsu et al. 2015; Ren et al. 2015). It is measured by the ratio of overseas sales to total sales. Through exporting, firms can obtain knowledge from their foreign importers, which benefits innovation performance (Li et al. 2010). Therefore, in this study, we also controlled export intensity (the ratio of exporting sales to total sales). Ownership of the firm is believed to influence both the SAS intent and the innovation performance because state-owned enterprises (SOEs) may receive incentives in the home country but cause political controversies in the host countries regarding the SAS intent (Cui et al. 2014). We included an ownership dummy variable, coded as “1” for SOE and “0” otherwise.

Internationally experienced firms are more familiar with the international markets and thus can be better at identifying and absorbing the strategic assets for which they are looking (Wu et al. 2016a). We thus controlled international experience, as measured by the number of years that a firm had engaged in FDI. Entry mode can influence a firm’s control of strategic assets and knowledge transfer. It is measured by a dummy variable, coded as “1” when the firm is using a wholly owned subsidiary mode (WOS) and “0” when using a joint venture mode. An ownership of 95% and above is considered a WOS entry mode, consistent with existing studies (Meyer and Su 2015). We controlled for an industry-level variable, industry, because firms in different industries can have different tendencies in terms of their innovation, and it was measured by a dummy variable, coded as “1” when the firm is in the manufacturing industry and “0” otherwise.

We included several country-level variables to control country-specific effects. Differences in culture are obstacles to learning, and we therefore controlled the effect of cultural distance, as calculated by following the suggestion of Kogut and Singh (1988), using Hofstede’s cultural dimensions (Hofstede 2010). We measured political stability using a composite measure of WGI on political stability, the rule of law, the control of corruption, and the absence of violence (World Bank 2017). This measure is widely used in the literature as a measurement of political risks and stability.
in a country (Kang and Liu 2016; Ramasamy et al. 2012). We measured host country R&D activity by the number of patent applications in that country (WIPO 2017). We lagged the data for one year, using the WGI and the number of patent application data in the host country in 2009 to control potential endogeneity.

4.3. Reliability and Validity

We conducted confirmatory factor analysis for two survey-based multiple-item variables (Bagozzi et al. 1991) using the maximum likelihood estimation method, and the results suggested that both convergent and divergent validity were achieved. Composite reliability and average variance extracted (AVE) for these three constructs reached the common cut-off point of 0.70 and 0.50. The reliability of the measurement items was assessed by Cronbach’s alpha, and the results were higher than the recommended level of 0.70 (Nunnally 1994), indicating satisfactory reliability. The AVEs of the constructs were greater than the squared correlations of each construct, demonstrating strong discriminant validity (Fornell and Larcker 1981).

Endogeneity is caused by measurement error, reverse causality, and/or omitted variables (Wooldridge 2002). We addressed the endogeneity issue in three ways: First, as mentioned in the measurement section, we followed prior empirical and theoretical studies for our variable measures. Satisfactory construct reliability and validity ensure that measurement error is not a significant concern in this study. Second, although this study is cross-sectional in design, we believe that reverse causality barely exists because there is a time lag between the dependent variable and the explanatory variables. The independent variable of SAS intent generally demonstrates the firm’s motivation for its FDI activities, whereas the two moderating variables (innovation capability and institutional quality) reflect an enduring status (e.g., innovation capability). Both types of variables can hardly be influenced by the dependent variable concerning the number of patent applications several years later. Third, regarding the possible existence of uncontrolled confounders that may be related to both independent and dependent variables in our model, we sought to mitigate this concern by including controls at firm-, industry-, and country-levels, which might influence innovation performance. The moderation effects, as proposed by our hypotheses, need to remain significant after ruling out all these confounding effects.

To detect potential multicollinearity, we performed a multiple regression analysis to assess the variance inflation factors (VIF). As shown in Table 1, VIF values for all explanatory variables are far below the cutoff-point of 10 (<3.15), indicating that multicollinearity is not a concern for the data (Bowerman and O’Connell 1990). Table 1 reports the descriptive statistics and correlations.
Table 1. Descriptive statistics, variance inflation factors (VIF), and correlations.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>VIF</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Firm age</td>
<td>15.70</td>
<td>13.63</td>
<td>1.28</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Firm size</td>
<td>3120.99</td>
<td>11030.68</td>
<td>1.23</td>
<td>0.20**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Industry</td>
<td>0.80</td>
<td>0.40</td>
<td>1.12</td>
<td>-0.11†</td>
<td>0.05</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 State ownership</td>
<td>0.17</td>
<td>0.37</td>
<td>1.39</td>
<td>0.33**</td>
<td>0.20**</td>
<td>-0.18**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 International experience</td>
<td>6.11</td>
<td>4.46</td>
<td>1.18</td>
<td>0.07</td>
<td>-0.09</td>
<td>-0.03</td>
<td>0.24**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Entry mode</td>
<td>0.58</td>
<td>0.49</td>
<td>1.09</td>
<td>0.02</td>
<td>-0.05</td>
<td>0.08</td>
<td>-0.01</td>
<td>-0.04</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Internationalization degree</td>
<td>0.39</td>
<td>0.34</td>
<td>1.52</td>
<td>-0.29**</td>
<td>-0.09</td>
<td>0.06</td>
<td>-0.18*</td>
<td>0.16†</td>
<td>0.15†</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Export intensity</td>
<td>0.62</td>
<td>0.33</td>
<td>1.23</td>
<td>0.08</td>
<td>-0.15†</td>
<td>0.16*</td>
<td>0.15†</td>
<td>-0.03</td>
<td>0.01</td>
<td>-0.29**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Host country R&amp;D activity</td>
<td>45,390.67</td>
<td>83,826.67</td>
<td>1.38</td>
<td>-0.10†</td>
<td>-0.03</td>
<td>0.02</td>
<td>-0.08</td>
<td>-0.02</td>
<td>0.04</td>
<td>-0.07</td>
<td>0.09</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Cultural distance</td>
<td>2.92</td>
<td>1.49</td>
<td>2.21</td>
<td>-0.17**</td>
<td>-0.03</td>
<td>0.03</td>
<td>-0.22**</td>
<td>0.07</td>
<td>0.08</td>
<td>0.29**</td>
<td>-0.12</td>
<td>0.42**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Political stability</td>
<td>0.66</td>
<td>0.96</td>
<td>2.08</td>
<td>-0.11†</td>
<td>0.07</td>
<td>-0.01</td>
<td>-0.18**</td>
<td>0.02</td>
<td>0.07</td>
<td>0.33**</td>
<td>-0.16*</td>
<td>0.34**</td>
<td>0.67**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Strategic asset seeking</td>
<td>2.71</td>
<td>1.09</td>
<td>2.42</td>
<td>-0.16*</td>
<td>0.07</td>
<td>0.03</td>
<td>-0.05</td>
<td>0.13†</td>
<td>0.02</td>
<td>0.29**</td>
<td>-0.08</td>
<td>0.07</td>
<td>0.31**</td>
<td>0.29**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Innovation capability</td>
<td>1.68</td>
<td>1.61</td>
<td>1.31</td>
<td>-0.04</td>
<td>-0.07</td>
<td>0.04</td>
<td>0.07</td>
<td>-0.01</td>
<td>-0.13*</td>
<td>-0.07</td>
<td>0.12</td>
<td>-0.00</td>
<td>0.17**</td>
<td>0.16*</td>
<td>0.32**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>14 Host country institutional quality</td>
<td>2.93</td>
<td>1.02</td>
<td>2.43</td>
<td>-0.15*</td>
<td>0.09</td>
<td>0.07</td>
<td>-0.02</td>
<td>0.06</td>
<td>-0.05</td>
<td>0.23**</td>
<td>0.01</td>
<td>0.10</td>
<td>0.12</td>
<td>0.09</td>
<td>0.51**</td>
<td>0.40**</td>
<td>1</td>
</tr>
</tbody>
</table>

Significance levels: † p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001.
5. Results

As a result of the dependent variable, innovation performance, being measured by the number of patent applications, a linear regression model, such as an ordinary least square model, is not appropriate because it will lead to biased and inconsistent coefficient estimates (Wu et al. 2016b). A count model, a maximum likelihood-based method, is recommended to perform this type of modeling analysis (Agresti 2013), and two types of count models—Poisson regression and negative binomial regression—should be adopted. Poisson regression is often employed for modeling based on count data for the dependent variable, but its assumption that the variance of the dependent variable must be equal to the mean makes it unsuitable for our dataset. By contrast, the negative binomial regression model addresses the dispersion issue of the dependent variable and has advantages in parameterizations. Therefore, we adopted the negative binomial regression model, which allows the mean of the dependent variable to vary.

Table 2 presents the results from the negative binomial regression modeling. We used a hierarchical regression analysis to test H1–H3 and estimated seven model specifications. Consistent with Hollender et al. (2017), we reported the following direct effects of the control, independent, and moderator variables before analyzing the interaction effects. First, Model 1 serves as the baseline model because it includes only the control variables to provide a reference base. Based on Model 1, Model 2 adds the independent variable of SAS intent, and Model 3 further adds the two moderating variables, innovation capability and institutional quality. Model 4 includes the moderating term of SAS intent * innovation capability to test H1. Model 5 includes SAS intent * institutional quality to test H2. Model 6 adds the moderating term of innovation capability * institutional quality as the baseline model for the three-way interaction. Adding the moderating term SAS intent * innovation capability * institutional quality, Model 7 presents the full model estimation and includes all the control, independent, and moderating variables, along with the interaction terms for the two-way and three-way interactions, to test H3.

Values for the log-likelihood ratio demonstrate the strong explanatory power of all the models. The growing values of this ratio across models indicate increases in the explanatory power of the interaction models (Models 4 to 7) in comparison to Models 1 to 3. The two-way interaction effect estimated in Model 4 indicates that innovation capability has a significantly positive effect on the direct relationship between the SAS intent and firms’ innovation performance, and the explanatory power of Model 4 is also much higher in comparison with all the model specifications without moderating effects, supporting H1. This moderating effect suggests that SAS intent is more likely to lead to improved innovation performance when the innovation capability of the investing firm is stronger. As shown by the results from Model 5, H2 is not supported because the interaction term between the SAS intent and institutional quality does not have a significant relationship with innovation performance.

Model 7 tests the three-way moderating effect of SAS intent * innovation capability * institutional quality. As shown in the results, this interaction term has a positive effect on the direct relationship between SAS intent and innovation performance. It will most likely lead to improved innovation performance when the strategic-asset-seeking firm has a higher innovation capability and when the institutional quality in a host country is higher, providing empirical support for H3.
Table 2. Results of negative binomial regression.

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm age</td>
<td>0.022</td>
<td>0.046</td>
<td>0.042</td>
<td>0.051</td>
<td>0.023</td>
<td>0.051</td>
<td>0.058</td>
</tr>
<tr>
<td>(0.052)</td>
<td>(0.052)</td>
<td>(0.052)</td>
<td>(0.043)</td>
<td>(0.057)</td>
<td>(0.041)</td>
<td>(0.039)</td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.000</td>
<td>-0.000</td>
<td>-0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>1.854</td>
<td>2.061</td>
<td>1.963</td>
<td>1.169</td>
<td>1.928</td>
<td>1.124</td>
<td>1.544</td>
</tr>
<tr>
<td>(1.594)</td>
<td>(1.461)</td>
<td>(1.384)</td>
<td>(1.173)</td>
<td>(1.422)</td>
<td>(1.154)</td>
<td>(1.226)</td>
<td></td>
</tr>
<tr>
<td>State ownership</td>
<td>2.190</td>
<td>0.929</td>
<td>0.668</td>
<td>-3.227</td>
<td>-0.066</td>
<td>-2.997</td>
<td>-2.580</td>
</tr>
<tr>
<td>(2.171)</td>
<td>(2.263)</td>
<td>(2.612)</td>
<td>(2.028)</td>
<td>(2.540)</td>
<td>(1.937)</td>
<td>(1.944)</td>
<td></td>
</tr>
<tr>
<td>International experience</td>
<td>-0.071</td>
<td>-0.152</td>
<td>-0.127</td>
<td>-0.110</td>
<td>-0.059</td>
<td>-0.110</td>
<td>-0.107</td>
</tr>
<tr>
<td>(0.174)</td>
<td>(0.167)</td>
<td>(0.196)</td>
<td>(0.106)</td>
<td>(0.191)</td>
<td>(0.106)</td>
<td>(0.110)</td>
<td></td>
</tr>
<tr>
<td>Entry mode</td>
<td>-1.588</td>
<td>-1.864</td>
<td>-1.805</td>
<td>-0.852</td>
<td>-1.284</td>
<td>-0.855</td>
<td>-1.171</td>
</tr>
<tr>
<td>(1.303)</td>
<td>(1.178)</td>
<td>(1.071)</td>
<td>(0.867)</td>
<td>(1.204)</td>
<td>(0.848)</td>
<td>(0.855)</td>
<td></td>
</tr>
<tr>
<td>Internationalization degree</td>
<td>-0.033</td>
<td>-0.048</td>
<td>-0.055</td>
<td>-0.036</td>
<td>-0.058</td>
<td>-0.037</td>
<td>-0.040</td>
</tr>
<tr>
<td>(0.026)</td>
<td>(0.023)</td>
<td>(0.023)</td>
<td>(0.015)</td>
<td>(0.022)</td>
<td>(0.015)</td>
<td>(0.016)</td>
<td></td>
</tr>
<tr>
<td>Export intensity</td>
<td>0.014</td>
<td>0.009</td>
<td>0.011</td>
<td>0.012</td>
<td>0.022</td>
<td>0.009</td>
<td>0.001</td>
</tr>
<tr>
<td>(0.017)</td>
<td>(0.018)</td>
<td>(0.020)</td>
<td>(0.015)</td>
<td>(0.021)</td>
<td>(0.015)</td>
<td>(0.016)</td>
<td></td>
</tr>
<tr>
<td>Host country R&amp;D activity</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Cultural distance</td>
<td>-0.868</td>
<td>-1.355</td>
<td>-1.481</td>
<td>-1.027</td>
<td>-1.587</td>
<td>-0.953</td>
<td>-0.586</td>
</tr>
<tr>
<td>(0.656)</td>
<td>(0.717)</td>
<td>(0.714)</td>
<td>(0.457)</td>
<td>(0.679)</td>
<td>(0.448)</td>
<td>(0.535)</td>
<td></td>
</tr>
<tr>
<td>Political stability</td>
<td>2.240*</td>
<td>2.332*</td>
<td>2.716*</td>
<td>2.223**</td>
<td>3.096**</td>
<td>2.078**</td>
<td>1.597*</td>
</tr>
<tr>
<td>(1.122)</td>
<td>(1.098)</td>
<td>(1.095)</td>
<td>(0.808)</td>
<td>(1.060)</td>
<td>(0.778)</td>
<td>(0.834)</td>
<td></td>
</tr>
<tr>
<td>SAS intent</td>
<td>1.421</td>
<td>1.685†</td>
<td>-0.262</td>
<td>3.628†</td>
<td>-0.232</td>
<td>-0.416</td>
<td></td>
</tr>
<tr>
<td>(0.721)</td>
<td>(0.873)</td>
<td>(0.580)</td>
<td>(1.866)</td>
<td>(0.544)</td>
<td>(0.588)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation capability</td>
<td>-0.202</td>
<td>0.584*</td>
<td>-0.192</td>
<td>0.605*</td>
<td>1.090*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.337)</td>
<td>(0.256)</td>
<td>(0.339)</td>
<td>(0.250)</td>
<td>(0.425)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional quality</td>
<td>-0.513</td>
<td>0.625</td>
<td>0.632</td>
<td>0.506</td>
<td>0.506</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.872)</td>
<td>(0.624)</td>
<td>(1.159)</td>
<td>(0.606)</td>
<td>(0.696)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAS intent * innovation capability</td>
<td>0.014**</td>
<td></td>
<td></td>
<td></td>
<td>-0.609</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.005)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.637)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAS intent * institutional quality</td>
<td></td>
<td>-0.581</td>
<td></td>
<td></td>
<td>0.227</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† p < 0.1; * p < 0.05; ** p < 0.01.
<table>
<thead>
<tr>
<th></th>
<th>(0.485)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation capability * institutional quality</td>
<td>0.016 ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAS intent * innovation capability * institutional quality</td>
<td>0.004 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>3.613</td>
<td>2.019</td>
<td>3.526</td>
<td>0.118</td>
<td>−0.950</td>
<td>0.425</td>
</tr>
<tr>
<td></td>
<td>(2.707)</td>
<td>(2.531)</td>
<td>(2.843)</td>
<td>(2.026)</td>
<td>(4.346)</td>
<td>(1.980)</td>
</tr>
<tr>
<td>AIC</td>
<td>573.169</td>
<td>554.711</td>
<td>557.744</td>
<td>535.576</td>
<td>558.447</td>
<td>534.427</td>
</tr>
<tr>
<td>LR chi square</td>
<td>12.090</td>
<td>15.220</td>
<td>16.190</td>
<td>40.360</td>
<td>17.490</td>
<td>41.510</td>
</tr>
<tr>
<td>Degree of freedom</td>
<td>11</td>
<td>12</td>
<td>14</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>−273.585</td>
<td>−263.356</td>
<td>−262.872</td>
<td>−250.788</td>
<td>−262.223</td>
<td>−250.214</td>
</tr>
<tr>
<td>Significance of the model test</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>320</td>
<td>320</td>
<td>320</td>
<td>320</td>
<td>320</td>
<td>320</td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses; † p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001.
To test the nature of the effects from the two-way and three-way moderations, we conducted further regression analyses at low and high levels of innovation capability and institutional quality, calculated as mean value plus and minus one standard deviation (Jaccard et al. 1990). We graphically illustrated these regression results in Figures 2 and 3. As Figure 2 shows, innovation capability has a positive moderating effect on the direct SAS intent innovation performance link because there is a more positive regression slope of the SAS intent innovation performance. As evident in Figure 3, among the four possible configurations between innovation capability and institutional quality, (a) high innovation capability and high institutional quality, (b) high innovation capability and low institutional quality, (c) low innovation capability and high institutional quality, and (d) low innovation capability and low institutional quality, SAS intent is most likely to lead to improved innovation performance under the condition of Configuration 1. Together, these results provide further support for both H1 and H3.

**Figure 2.** Innovation capability and strategic asset seeking (SAS) two-way interaction plot.

**Figure 3.** Innovation capability institutional quality and SAS three-way interaction plot.
6. Discussion and Implications

Motivated by the aim of addressing the research gap in prior studies of SAS FDI that overlooked the performance implications of SAS intent for investing MNEs, in our study, we identified the internal and external factors that influence the SAS intent performance link. To this end, we explored the contingent conditions under which the SAS intent will lead to firms’ innovation performance, drawing on the strategic intent perspective and strategic fit paradigm. Prior studies propose that a fit between a firm’s internal resources and external environment enhances the linkage between business activities and firms’ performance (Gibb and Haar 2010; He et al. 2015). Applying the fit paradigm to the research on SAS intent in an EMNE setting, we propose that the crucial issue regarding SAS intent is not how EMNEs formulate or implement their SAS intent, but how EMNEs achieve their SAS intent to improve their innovation performance. To the best of our knowledge, our study represents the first research effort to address the performance implications of SAS intent by developing a conceptual framework to explore the linkage between EMNE SAS intent and innovation performance.

The empirical results of this study support the notion that SAS intent can lead to improved innovation performance only when there is a fit among SAS intent and the factors internal and external to the EMNE. This finding extends prior research that suggests a rich base of intangible assets and strong national innovation systems in foreign markets facilitate SAS firms to acquire, transfer, and recombine their strategic assets with their existing firm-specific advantages and thus eventually to strengthen and sustain their competitive advantage (De Beule and Duanmu 2012; Elia and Santangelo 2017; Zheng et al. 2016). To extend this notion, our results reveal the contingent conditions under which EMNE SAS intent will lead to improved innovation performance by specifying the essential moderating roles played by innovation capability and the external institutions. Moreover, we noted that the moderating role played by institutional quality is more complex. We addressed this complexity by developing a hypothesis of three-way moderation and found evidence consistent with the interaction effect of the two moderators: that is, although institutional quality does not directly moderate the link between SAS intent and innovation performance, it will jointly moderate this link together with innovation capability. More specifically, when the investing firm has high innovation capability and has invested in a host country with high institutional quality, SAS intent is most likely to lead to improved innovation performance for the firm. In this way, we provide a more nuanced discussion and analysis of the role of institutional quality in influencing the performance implications of SAS intent.

Our study advances the extant research by making several substantive contributions. First, this research adds new insights to prior studies of EMNE SAS intent by paying attention to the link between EMNEs’ SAS intent and the performance implications of such intent, which is a highly important topic that has been overlooked by prior research to a large degree. We developed and empirically tested an interactive conceptual framework by examining the SAS intent innovation performance link through integrating factors both internal and external to the investing EMNE. It is also noteworthy that our empirical setting of Chinese SAS MNEs allows us to assess the performance implications of SAS intent, given that the salient feature of Chinese MNEs is their SAS intent. Second, extending the strategic fit literature and research on EMNEs’ performance, we examined the contingent conditions under which SAS EMNEs can achieve better goal attainment. Using the lens of the strategic fit paradigm (Venkatraman 1989; Zajac et al. 2000), we argue that the investing EMNEs can achieve better innovation performance when they align their SAS intent with internal and external factors. Our findings specify that, to achieve improved innovation performance, EMNEs need to systematically integrate and match their SAS intent with their existing innovation capabilities and institutions in the host country. Third, our research contributes to the institutional literature by revealing that the role of host country institutional quality can spread beyond national borders to improve the innovation performance of EMNEs in their home country. Prior research suggests that, in general, EMNEs favor host country environments with weak institutions due to their institutional embeddedness in home country operations, and thus perform better in such environments (Buckley et al. 2016; Cuervo-Cazurra and Genc 2008). We argue that the differences in strategic asset endowments and institutional quality between host and home countries are conducive to improving
EMNEs’ innovation performance. Our findings are consistent with the view that high-quality institutions in the host country can compensate for the disadvantages of foreignness. Extending this view further, we argue that host country institutional quality alone is not sufficient to influence the direct SAS intent innovation performance link. To exploit high-quality institutions in the host country for achieving innovation, EMNEs with SAS intent need to develop a high level of innovation capability. Our results regarding interdependent influence explicitly demonstrate that interactions between the two moderators of innovation capability and institutional quality provide synergistic moderating effects on the SAS intent innovation performance link by activating (in the case of institutional quality) or amplifying (in the case of innovation capability) their independent moderating effects. Our study therefore enhances the understanding of the performance implications of EMNEs’ SAS intent by considering both the independent and interdependent moderating effect of innovation capability and institutional quality.

Our study offers practical implications for EMNE managers. First, it highlights the notion that a strategic fit of SAS intent with both internal firm capability and external institutions presents an effective way to improve innovation performance, whereas SAS intent alone is unlikely to lead to improved innovation performance. Second, stronger innovation capabilities and well-developed host country regulations will assist in achieving the SAS goals. Therefore, EMNEs need to develop their innovation capabilities, which will enable them to take advantage of host country institutional quality. Without this crucial firm capability, high-quality institutions in the host country have no influence on EMNEs’ innovation performance in the home country. In contrast, an interaction between firms’ innovation capability and institutional quality provides synergistic moderating effects on the direct link between SAS intent and innovation performance. Third, our finding regarding the insignificant results for the independent moderating effect of institutional quality on the SAS intent innovation performance link is intriguing because it implies that high institutional quality is not always conducive to the innovation performance of SAS EMNEs in their home country. Thus, EMNEs with a low level of innovation capability may need to be more careful when entering a host country with high institutional quality.

7. Conclusions and Limitations

Innovation is truly the lifeblood of SAS MNEs from China. Our study examines the question of how internal and external forces independently and jointly affect the relationship between SAS intent and innovation performance. Employing the strategic fit paradigm, we develop a three-way moderation framework to address this question by focusing on innovation capabilities as the internal forces and host country institutions as the external forces. We find that firms’ innovation capabilities work as a positive stimulus to the link between SAS intent and innovation performance. We note that some findings are rather complex. The joint effect of host country institutions and SAS intent on innovation performance is not significant. However, the three-way interaction of SAS intent, innovation capabilities, and host country institutions have a significant and positive impact on innovation performance. We address these findings as the synergistic effect, which means firms without strong innovation capabilities would not benefit from the advantages of high-level host country institutions. In this way, we provide a more nuanced discussion and analysis of the roles of firm innovation capabilities and host country institutions in influencing innovation performance.

This study has several limitations that offer avenues for future research. First, this study focuses only on EMNEs’ SAS intent. Given the fact that an EMNE might have multiple strategic intents, future studies could investigate the contingent factors that contribute to the achievement of other strategic intents. Second, although we have combined different databases, this study mainly uses cross-sectional data especially for the independent variable: SAS intent. Future studies could use longitudinal data to examine the evolution of SAS intent and the changes of the contingent conditions on firms’ innovation performance across several years. Third, as with similar single-country studies, one limitation of this study concerns the generalizability of the results. Although we acknowledge that China is one of the fastest-growing emerging economies, other emerging economies such as Russia and India also expand overseas quickly. Future research could therefore aim to examine
whether SAS intent by MNEs from other emerging economies has the same contingent conditions for better innovation performance. Fourth, because our sample only includes CCPIT members, it would have been interesting to know whether our findings hold for non-CCPIT members investing abroad. Fifth, data constraints regarding the unit of analysis do not allow us to measure the innovation performance of Chinese MNEs’ subsidiaries in host countries. Future research could examine the innovation performance of foreign subsidiaries and how they diffuse innovation capabilities to the parent firms.

Author Contributions: Conceptualization, L.M.; methodology, L.M.; validation, Y.K., Y.L., and X.-F.S.; writing—original draft preparation, L.M. and X.-F.S.; writing—review and editing, X.-G.Y. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

References


Strategic Asset Seeking and Innovation Performance: The Role of Innovation Capabilities and Host Country Institutions

Mi, L

2020-03-02

22/09/2020 - Downloaded from MASSEY RESEARCH ONLINE