

# The Entry-Mode Decision of Chinese Outward FDI: Firm Resources, Industry Conditions, and Institutional Forces

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*How do Chinese firms make their entry-mode decision for their outward investments? Based on the three theoretical perspectives that balance the “strategy tripod,” our study conducted empirical tests using survey data collected from outward-investing Chinese firms. We found that the cost advantage of the investing firm and learning opportunities in the host industry have positive effects on the likelihood of a Chinese firm opting for wholly owned subsidiary against joint-venture entry mode, while the market attractiveness of the host industry, host-country restrictions, cultural barriers, and cognitive pressures have negative effects. © 2011 Wiley Periodicals, Inc.*

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## Introduction

The rapid growth of Chinese outward foreign direct investment (FDI) observed in recent years has attracted increasing academic attention to explore *what* drives Chinese firms to engage in outward FDI (Child & Rodrigues, 2005; Morck, Yeung, & Zhao, 2008; Rui & Yip, 2008). Relatively less discussed is *how* Chinese firms invest overseas, especially the decision of FDI entry mode. This is despite the fact that the FDI entry-mode decision is highly complex and largely irreversible (Buckley, 2007), which makes it especially challenging for inexperienced firms. Being “latecomers” in outward FDI, many Chinese firms are overwhelmed by the interwoven decision factors and the volume of information that needs to be processed. Firms need to identify and focus on the most influential decision factors so as to optimize the utilization of their limited managerial and other resources. Furthermore, the FDI entry-mode decision has implications for other strategic decisions and has far-reaching consequences on FDI performance (Aulakh & Kotabe, 1997; Brouthers & Hennart, 2007). With Chinese outward FDI showing mixed performance results (Ministry of Commerce [MOFCOM], 2007; Morck et al., 2008), it is imperative for existing and potential Chinese outward investors to gain a better understanding of FDI entry-mode decision making. What are the significant factors driving the entry-mode decision of Chinese outward FDI? We address this research question in our study to identify the significant factors influencing Chinese firms’ decisions on the choice between two FDI entry-mode alternatives—wholly owned subsidiary (WOS) and joint venture (JV).

A challenge in FDI entry-mode literature is the lack of a comprehensive framework that not only synthesizes existing theoretical perspectives, but also captures the special features of the fast-growing outward FDI from emerging markets. Some recent studies investigate FDI ownership decisions of Chinese firms, with a special focus on strategic variables or institutional variables (Cui & Jiang, 2009, in press). In contrast, in this study we argue that a balanced “strategy tripod” perspective (Peng, 2006; Peng, Wang, & Jiang, 2008) can fully capture the special driving forces behind Chinese outward FDI and therefore better explain firms’ FDI entry-mode decisions. The three legs of the strategy tripod—namely, the resource-, industry-, and institution-based views, provide theoretical explanations to the distinct features of Chinese outward FDI in terms of firms’ ownership advantages, firms’ strategic motivations, and home-country institutional environments, respectively. By synthesizing these three theoretical perspectives, we aim to develop

a framework that extends the current understanding of how emerging-market firms (especially Chinese firms) choose FDI entry mode.

## Theories and Hypotheses

### Resource-Based View

The resource-based view sees a firm as a unique bundle of tangible and intangible resources (Barney, 1991). Such resources are the origin of the firm’s competitiveness and support the firm to overcome its liabilities of foreignness and to progress in its internationalization path. The resources that generate competitive advantages are usually valuable, rare, inimitable, and nonsubstitutable (Barney, 1991), incurring a high level of transaction costs when being transferred and deployed overseas. A fully integrated entry mode (WOS) can reduce or eliminate the transaction costs by internalizing the transaction and removing the potential threats of partner opportunism. Prior empirical studies have supported the view that firm resources are positively associated with the choice of WOS entry mode (Aulakh & Kotabe, 1997; Madhok, 1997).

From the resource-based view, Chinese firms need to possess certain ownership advantages to expand overseas. As Dunning (2006) points out, similar to developed-country firms, Chinese firms exploit their resource advantages in their FDI, although the types of resource advantages they enjoy are different. While developed-country firms typically focus on resources that generate firm-specific advantages, the resource advantages of Chinese firms are mainly home-country-based (Rugman & Li, 2007; Rui & Yip, 2008). More specifically, Chinese firms enjoy low-cost advantages that allow them to expand overseas, especially into other emerging markets (Wright, Filatotchev, Hoskisson, & Peng, 2005). The low-cost advantages of Chinese firms originate from three types of resources. The first is the firms’ access to their domestic factor markets, where they source cheap production inputs such as raw materials, semi-products, labor, and other factors. Second, as a result of capital market imperfections, Chinese firms enjoy low-cost financing resources (Buckley, Clegg, Cross, Liu, Voss, & Zheng, 2007; Luo, Xue, & Han, 2009). Chinese firms can obtain capital at below-market rates, typically in the form of low-interest national bank loans. Third, Chinese firms have accumulated substantial experiential knowledge in cost and quality control through both domestic and international competition for more than two decades (Cui & Jiang, 2009; Morck et al., 2008).

Chinese firms can extend their low-cost advantages overseas by maintaining the three sources of cost advan-

tages discussed above. Chinese firms competing overseas on low costs can sustain linkages with domestic supply-chain networks, maximize their low-cost financing benefits, and transfer cost and quality control know-how to their foreign subsidiaries. To serve these purposes, a WOS entry mode is more appropriate than a JV. This is because through a WOS entry, a Chinese firm can duplicate its domestic supply-chain design in its foreign subsidiary without JV partner intervention (Rugman & Li, 2007). The wholly owned foreign subsidiary can also fully capitalize on its parent's low-cost financing capability, which is unlikely to be matched by a foreign JV partner who finances at market rate (Buckley et al., 2007). Furthermore, the cost and quality control capabilities of Chinese firms are based on tacit experimental know-how. A WOS entry internalizes the transferring of such knowledge and reduces transaction costs (Madhok, 1997). Accordingly, we propose the following:

*Hypothesis 1: The low-cost advantage of a Chinese firm is positively related to the likelihood of the firm choosing a WOS entry mode.*

### Industry-Based View

From an industry-based view, firms develop competitive strategies that reflect the characteristics of their respective industrial environments (Porter, 1980). When firms invest overseas, such strategies are reflected in their FDI entry-mode decisions. The effects of industry conditions on the FDI entry-mode decision can be divided into push and pull effects, both of which are related to the factor and demand conditions of the host-country industry.

The push effects refer to the competitive pressures in an industry and their consequences on the strategies of firms operating in that industry. Harsh competition and limited market opportunities in a home-country industry can push its indigenous firms to internationalize (Yamakawa, Peng, & Deeds, 2008). This, however, is not likely to be the case for the majority of Chinese firms that enjoy the size and growth potential of their domestic market (Cui & Jiang, in press). The push effects on Chinese outward FDI generally come from the host industries, where the competition can be intense, sophisticated, and unfamiliar to Chinese firms. Chinese firms entering such intensely competitive foreign industries need to adjust their competitive strategies in response to the factor and demand conditions. Accessing the factor markets of a competitive host industry can be difficult for foreign investors, as the local incumbents have locked in quality suppliers, leaving foreign investors with a limited number of poor choices. A cooperative entry mode (for example,

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JV) enables a foreign investing firm and its local partner to pool resources and share access to local factor markets (Harrigan, 1988). It essentially allows the foreign firm to utilize the advantages of its local partner to compensate for its own liabilities of foreignness. Competition on the demand side of a host industry also needs to be considered. The capacity-adding effect of JV is relatively less apparent compared to WOS (Bell, 1996), which makes JV more desirable in a competitive industrial environment where incumbent firms are likely to strategically retaliate against new entrants. Considering both the factor and demand conditions of a highly competitive foreign industry, JV is a more appropriate entry mode than WOS.

*Hypothesis 2: The competitive intensity of the host-country industry is negatively related to the likelihood of a Chinese firm choosing a WOS entry mode.*

Foreign industries, especially those of developed economies, exhibit learning opportunities of advanced technology, high-value brand assets, and tacit management know-how. Such factor conditions have a pull effect on emerging-market firms seeking complementary assets and capabilities overseas (Luo & Tung, 2007; Yamakawa et al., 2008). Similar to other emerging-market firms, the Chinese firms' FDI decision and strategy are largely influenced by the strategic intent of asset seeking (Child & Rodrigues, 2005; Deng, 2009). At home, Chinese firms have used JV as a channel of learning technology and know-how from inward FDI. This method has a significant constraint, as

foreign firms are reluctant to share their core competencies-related technologies and know-how (Rui & Yip, 2008). To break through this constraint, Chinese firms pursue asset seeking in outward FDI by means of acquisition and organic expansion (Child & Rodrigues, 2005). In this process, Chinese firms prefer more aggressive approaches of learning by establishing WOS, because sole ownership gives an investing firm unrestricted access to the acquired resources from which it can extract value without partner intervention (Cui & Jiang, 2009). Additionally, the controllability of a WOS enables a high level of global integration and maximizes global synergy effects (Kim & Hwang, 1992). This feature can be beneficial for those Chinese firms that seek assets and capabilities in a host industry, with the aim of sharing the learning opportunities with their headquarters and other subsidiaries. Therefore, when the FDI of a Chinese firm is pulled by the learning opportunities in the host industry, the firm will prefer a WOS entry mode to fully capture those opportunities.

*Hypothesis 3: The learning opportunities of the host-country industry are positively related to the likelihood of a Chinese firm choosing a WOS entry mode.*

The pull effects of a foreign industry can also originate from the demand side—namely, the market opportunities. Market seeking has often been perceived as the most common motivation behind FDI from emerging markets (United Nations Conference on Trade and Development [UNCTAD], 2006). Like other emerging-market firms, a great number of Chinese firms invest overseas, seeking

market opportunities in locations with different levels of market development and growth potential (Luo & Tung, 2007). An attractive market condition usually combines a fast growth rate with great growth potential, and is likely to be targeted by domestic and foreign investors, which make the industry environment highly dynamic (Bell, 1996). To capture the market opportunities in a dynamic industry environment, it is imperative for a foreign investing firm to establish first-mover advantages prior to potential competitors. The investing firm can partner with an incumbent firm to gain a better competitive position rapidly by utilizing the local expertise and the existing capacities of the partner firm. A solo entry, through either greenfield investment or merger and acquisition, generally requires a higher level of resource commitment and, therefore, longer preparation time (Cui & Jiang, 2009). Although the investing firm is entitled to the full return on its investment through a solo entry, there may be a long lead time before the benefits can be realized. This is because the firm has to start from a relatively disadvantaged competitive position due to the lack of local partner inputs that helps offset the investing firm's liability of foreignness. In general, when FDI is pulled by market opportunities in a host industry, JV is the preferred entry mode so that the investing firm can seize the opportunities in a timely manner.

*Hypothesis 4: The market opportunities of the host-country industry are negatively related to the likelihood of a Chinese firm choosing a WOS entry mode.*

### Institution-Based View

The strategy tripod recognizes the significance of institutional forces in firms' strategy formulation (Peng et al., 2008). Institutions, defined as "the rules of game," should not be considered constant and treated as background, especially in an emerging-economy context where the rules are changing constantly, or in an international business context where both the formal and informal rules are different across nations (North, 1990; Peng et al., 2008). In terms of the FDI entry-mode decision, investing firms select an appropriate entry mode to attain institutional legitimacy. Firms receive institutional pressure from three "pillars of institutions"—namely, the regulative, normative, and cognitive institutions (Scott, 1995)—all of which are found to have significant influences on firms' FDI entry-mode decisions (Chan & Makino, 2007; Lu, 2002; Yiu & Makino, 2002).

Regulatory institutions refer to the formal laws, regulations, and rules of the host government that are applied to foreign investors. In a host country with a high level of restrictions toward FDI, full or majority foreign owner-

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ship may not be permitted in certain industries, leaving JV as the only choice of entry mode. Even without such a direct ban, foreign investing firms may also be subject to discriminatory policies that constrain their access to local resources, require mandatory exporting, or interfere with other operational matters. Hence, the foremost concern of a firm entering a restrictive host country is to gain market legitimacy—namely, to establish rights equal to those of local firms. A JV entry mode is preferred because restrictive local policies have less impact on a business jointly owned by local and foreign investors than on a purely foreign business (Brouthers, 2002; Yiu & Makino, 2002). Chinese outward-investing firms are not exempted from host-country restrictions. Indeed, in some cases, Chinese firms are specially targeted by host-country policymakers for economic and political reasons (Globerman & Shapiro, 2009). The heavier the regulative restriction imposed on Chinese firms in the FDI host countries, the more incentive these firms have to exchange ownership for legitimacy.

*Hypothesis 5: The level of host-country restrictions is negatively related to the likelihood of a Chinese firm choosing a WOS entry mode.*

Normative institutions refer to the shared understanding and meanings that are embodied in the national culture, values, norms, and belief systems in a given country (Yiu & Makino, 2002). To be socially legitimate, foreign investing firms must understand and conform to the host-country normative system. This process of attaining normative institutional legitimacy is hindered by cultural barriers as a result of host-country ethnocentricity (anti-foreigner attitudes) and home-host cultural distance. To bypass such barriers, foreign investing firms utilize a JV entry mode. This is because a JV is more socially and culturally acceptable than a purely foreign-owned business, and, by forming a JV, the investing firm can learn how to adapt to local cultural norms from its partner and can utilize the partner's social network to shorten the cultural distance (Hennart & Larimo, 1998; Yiu & Makino, 2002). Therefore, the higher the host-country cultural barriers, the more pressure foreign investing firms receive to opt for a JV entry mode. Chinese outward FDI has spread to over 170 countries and regions in the world (MOFCOM, 2008), encompassing a wide range of normative systems and, consequently, different levels of cultural barriers. The level of cultural barrier may also relate to the nature of the FDI project. For example, Chinese outward FDI in natural resource industries often attracts a high level of host-country social resistance, encouraging the Chinese investing firms to neutralize their foreign identity

and demonstrate greater corporate social responsibility (Cui & Jiang, in press). When facing a high level of host-country cultural barriers, Chinese firms are pressured to exchange ownership for legitimacy.

*Hypothesis 6: The level of a host-country cultural barrier is negatively related to the likelihood of a Chinese firm choosing a WOS entry mode.*

Cognitive institutions refer to widely shared cognitive structures by which individuals make sense of their decisions. In FDI entry-mode decision making, a decision is perceived as legitimate if it follows successful prior FDI entries of its own (internal mimicry) or other firms (external mimicry) (Lu, 2002; Yiu & Makino, 2002). The standard for *success* varies in different business contexts. Differently from developed-country firms, Chinese outward-investing firms are unlikely to use market-based performance as a common standard for evaluating prior FDI performance. This is because, as discussed earlier, a significant portion of Chinese outward FDI is asset-seeking or for other strategic purposes, whose performance cannot be judged simply by market outcomes, and is not comparable with other types of FDI. Moreover, Chinese firms are latecomers in outward FDI. It is only in recent years that Chinese outward FDI has seen rapid growth, and it is still premature to evaluate its overall performance from current market-based outcomes. In the Chinese context, the cognitive structure of outward-investing firms is not established on the market-based performance of prior practices. The perception of *success*, however, is heavily influenced by the Chinese government's response to firms' FDI decisions. In a government-administered outward FDI approval system, Chinese firms need to submit their outward FDI proposals for government approval before they carry out their investments. The approval system focuses on the risks of the investment, consistency with the national economic development strategy, and related international regulations and agreements. Based on the approval results of prior FDI projects, firms form a common understanding of best practice. The choice of FDI entry mode is perceived as legitimate if it increases the likelihood of the proposed FDI project being approved by the government. Historically, the government's approval system has preferred a low-risk and low-resource commitment entry mode (i.e., JV). In the 1990s, most approved FDI projects were in the form of JVs, where Chinese firms normally hold an equity share between 40 and 70% (Buckley, Cross, Tan, Xin, & Voss, 2008; Zhan, 1995). In recent years, however, the Chinese government has gradually relaxed the approval system and changed it to a more monitoring and less administrative role. This

move is intended to reduce the government's influence on firms' business decision making. However, depending on the industry, the FDI location, and the scale of investment, certain types of outward FDI are still heavily influenced by the government (Cui & Jiang, in press). When a Chinese firm perceives high cognitive pressure from the government's approval system, it will have a tendency to choose an entry mode that is historically preferred by the government, which is the JV entry mode. Such a tendency will be weaker if the perceived cognitive pressure is lower.

*Hypothesis 7: The level of cognitive pressure is negatively related to the likelihood of a Chinese firm choosing a WOS entry mode.*

## Methods

### Data

The sampling frame for this study was mainland Chinese firms who conducted FDI during the period from 1992 to 2006. We excluded Chinese outward FDI prior to 1992 because the Chinese outward FDI before 1992 was mainly conducted by a limited number of state-owned enterprises (SOEs) and was directed by the government (Buckley et al., 2007). With the privatization of SOEs, the rise of private firms, and the changing role of the Chinese government, pre-1992 outward FDI is also no longer representative statistically. Post-1992 outward FDI comprises more than 95% of the total stock of Chinese outward FDI (MOFCOM, 2008).

We used a self-constructed sampling frame rather than random sampling from the population due to the lack of a complete list of Chinese outward-investing firms that could be used for this study. The Chinese government conducts an annual administrative survey on outward-investing firms, but the data are kept strictly confidential, and only aggregated statistics are released in the "Annual Statistical Bulletin of Chinese Outward FDI" by the Ministry of Commerce. With no reliable third-party database available on Chinese outward FDI, researchers intending to conduct a survey on Chinese outward-investing firms have to rely on a self-constructed sampling frame. In this study, our sampling frame was constructed from three types of official sources. First, by the time of the survey, two issues (2004 and 2005) of the "Annual Statistical Bulletin of Chinese Outward FDI" were published by the Ministry of Commerce, both of which included lists of the top 30 Chinese outward-investing firms ranked by their foreign assets and sales figures. Second, in 2006, the municipal governments of Beijing and Shanghai and the provincial governments of Fujian, Shandong, Jiangsu,

and Zhejiang released their lists of FDI projects they had approved by 2005. The names of the investing firms could be identified from these lists of approved projects. Third, the provincial governments of Guangdong and Heilongjiang released reports of outward FDI inspection of 2005, in which the names of the outward-investing firms were listed. All of these sources were publicly accessible in printed material or on government websites at the time of the survey. It should be noted that these sources are not mutually exclusive; overlaps exist between the central government (Ministry of Commerce) and provincial government releases. Our focus on the aforementioned eight municipal and provincial areas was due not only to the availability of reliable information sources, but also to the fact that these areas accommodated more than 62.5% of the total population of Chinese outward-investing firms by 2005 (MOFCOM, 2006). From the above sources, a list of firms was created and individual firms' website and related media releases were searched to ensure that the firm qualifies as a sample firm for this study. After eliminating overlaps among sources and firms who had no new FDI projects after 1992 or whose FDI projects had been terminated, the final sampling frame included 588 firms, representing nearly 15% of the total population of Chinese outward-investing firms by 2005.

We conducted a questionnaire survey during the period from July to November 2006, with official endorsement from the Chinese Company Association of Foreign Trade and Economic Cooperation. The questionnaire was designed to collect information about the investing firm and details of the firm's latest outward FDI projects, with special focus on its decision making regarding FDI entry-mode choice. A potential respondent needed to be cognizant of the decision-making process of his/her firm's FDI entry-mode choice. The respondent was required to have either direct or indirect input to the decision-making process, and was typically a senior executive of the firm, a manager of the investment department, or a chief advisor. The survey process followed two steps. Telephone prescreening was conducted first to identify potential respondents and solicit their participation in the survey. The first point of contact was generally the "corporate gatekeeper"—namely, secretaries or public relation officers. It was important to present the official endorsement letter to "open the gate." Among the 588 firms we contacted in this prescreening stage, 325 firms passed on our survey documents (endorsement letter, information sheet, and consent form) to their senior management, and direct contact with a potential respondent was established. Following this stage, we sent our questionnaires to these identified potential respondents

by fax. This was followed by two reminder faxes sent four and six weeks after the original delivery. At the completion of the survey, 138 respondents provided usable returns, which constitutes a response rate of 23.5%.

## Variables

### Dependent Variable

The dependent variable is the choice of FDI entry mode, between JV and WOS. As Hennart (1991) pointed out, using ownership percentage as a measure of FDI entry mode is inappropriate due to the fact that intervals are not constant over the entire range of ownership. Accordingly, the choice of FDI entry mode should be measured as a categorical variable. Following the majority of the literature (e.g., Hennart, 1991; Hennart & Larimo, 1998; Lu, 2002; Makino & Neupert, 2000), we used the ownership share of 95% as the cutoff point between a JV and a WOS: an entry mode is identified as a WOS if the Chinese investing firm holds 95% or more equity ownership in the foreign venture. While there are alternative cutoffs used by UNCTAD (90%) or based on conventional accounting practice (80%), they are generally adapted in the literature for robustness test purposes. In terms of data coding, we gave the dependent variable a value of 1 if the entry mode was WOS and a value of 0 if JV.

### Independent Variables

We measured our seven independent variables through indicators on five-point scales. *Low-cost advantage* of Chinese firms is rooted in the home-country conditions. Prior studies suggest that Chinese firms are cost-efficient due to the economy of scale they enjoy domestically and the cost control capability they accumulate from domestic operation (Rugman & Li, 2007). Buckley et al. (2007) added that domestic financial market imperfection creates low-cost financing opportunities for some Chinese firms. *Competition intensity* is related to the number of existing competitors at the time of entry, the level of industry concentration, and, in general, the competitive pressure perceived by the new entrant. The measure of this variable is adapted from prior studies of FDI entry-mode choice (Bell, 1996; Kim & Hwang, 1992). *Learning opportunity* reflects the industrial pull effect of the target location of FDI by Chinese firms. Prior studies suggest that Chinese firms actively engage in outward FDI to seek foreign technological know-how, market know-how, managerial know-how, and to benefit from host-industry cluster effects (Buckley et al., 2007, Child & Rodrigues, 2005). *Market opportunity* is related to the market-seeking motives of Chinese outward-investing firms. Both mar-

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ket-growth rate and market-growth potential have been used as indicators of market opportunity in prior FDI entry-mode studies (Bell, 1996; Brouthers, 2002). *Host-country restriction* is the source of host-country regulatory institutional pressure on foreign entrants. Prior studies measure this variable on the perceived level of restrictiveness of host-country politics toward foreign investors (Yiu & Makino, 2002). *Culture barrier* is the source of host-country normative institutional pressure on foreign entrants. From the host-country perspective, *culture barrier* is internally related to the cultural ethnocentricity of the country, and externally related to the cultural distance between the host-country and foreign entrants. Both of these aspects are included in the measure of this variable in prior studies (Chan & Makino, 2007; Yiu & Makino, 2002). *Cognitive pressure* incorporates not only the external restrictiveness of government approval process, but also the internal evaluation of the degree of the government's influence on the decision making of a firm (Cui & Jiang, 2009). For example, given the same level of the possibility of governmental approval, a state-owned company may be more willing to "go the extra mile" than a private company to adhere to the government's preference. This is because of the close sociological connection between the government and the managers of the state-owned company, or in other words, the government's influence on the decision making of the firm. The measures of the independent variables are summarized and presented in Table 1.

### Control Variables

We included five control variables in our analysis. *Size* matters in FDI entry-mode decision, as it is related to the firm's ability to fulfill the resource commitment requirements associated with different entry modes (Hennart, 1991; Kim & Hwang, 1992). In the literature, firm size is typically measured by sales, number of employees, or assets. While asset figures are extremely sensitive in the Chinese context due to "capital flight" incidents in the late 1990s, sales figures are more readily available. In this study, we measured the size of a firm based on its global sales volume of the year prior to the survey (in billions of Chinese yuan). *Industry* is another control variable we used to capture the possible industrial impacts on firms' FDI entry-mode decision that are not explained by our independent variables. Although it would be beneficial to include detailed industrial breakdowns in our analysis, our data size limited us to using a dummy variable to differentiate manufacturing firms ( $n = 78$ ) from nonmanufacturing firms ( $n = 60$ ). Prior studies also suggest that state-owned Chinese firms may receive institutional treatments different from other firms, both at home and overseas (Globerman & Shapiro, 2009; He

& Lyles, 2008; Luo, Xue, & Han, 2010). We included *state ownership* as a control variable to capture any possible institutional effect. This was measured as the percentage of a firm's equity ownership ultimately owned by the state. The *establishment* method of FDI was also controlled in this study. Although there is no conclusive evidence in the literature regarding the relationship between FDI entry mode and establishment method, the possible connection between these two strategies needs to be controlled. Following prior studies, we used a dummy variable to differentiate between greenfield and acquisition establishment method (see Hennart & Park, 1993). Lastly, *country risk* is commonly investigated as an environmental factor that influences FDI entry-mode decisions of firms (Bell, 1996; Erramilli & Rao, 1993). Although we expect our industry and institutional variables to capture the majority of the environmental influences, we included country risk to control for any remaining effect. This variable was measured on six indicators ( $\alpha = 0.84$ ) adopted from Bell (1996); Gatignon and Anderson (1988); and Erramilli and Rao (1993). The descriptive statistics and correlations of the variables are presented in Table 2.

**TABLE 1** Measurements of Independent Variables

Constructs	Cronbach's $\alpha$	Major References
<b>1. Low-Cost Advantage</b> The firm's cost control capability in business operations The level of economy of scale realized in the business operation of the firm The firm's access to low-cost financing and other operational inputs	0.85	Buckley et al. (2007) Rugman and Li (2007)
<b>2. Competition Intensity</b> Estimated number of existing competitors at the time of entry Host-industry concentration level Perceived competitive pressure on new entrants	0.84	Bell (1996) Kim and Hwang (1992)
<b>3. Learning Opportunities</b> Host-industry technological opportunities Learning opportunities of market know-how Learning opportunities of managerial know-how Potential benefits from host-industry cluster effects	0.82	Buckley et al. (2007) Child and Rodrigues (2005)
<b>4. Market Opportunities</b> Host-industry market-growth rate at the time of entry Estimated host-industry market growth potential	0.71	Bell (1996) Brouters (2002)
<b>5. Host-Country Restriction</b> Perceived restrictiveness of host-government policies toward foreign investors	n/a	Yiu and Makino (2002)
<b>6. Cultural Barrier</b> Ethnocentric characteristics of host-country culture Perceived antiforeigner cultural attitudes of host-country society Differences of host-country culture from Chinese culture Difficulty of adapting to host-country culture	0.75	Chan and Makino (2007) Yiu and Makino (2002)
<b>7. Cognitive Pressure</b> Restrictiveness of home-government approval Perceived government influence on business decision making	0.75	Cui and Jiang (2009)



TABLE 2 Descriptive Statistics and Correlations

	1	2	3	4	5	6	7	8	9	10	11	12
1. Size (annual sales 2005)	1.00											
2. Industry (manufacturing dummy)	0.05	1.00										
3. State ownership (SOE dummy)	0.41**	-0.15	1.00									
4. Establishment (greenfield dummy)	-0.04	-0.08	-0.05	1.00								
5. Country risk	-0.25**	0.00	-0.21*	-0.18*	1.00							
6. Low-cost advantage	-0.04	-0.03	-0.03	0.06	0.12	1.00						
7. Competition intensity	0.07	-0.05	0.08	0.02	-0.17*	0.20*	1.00					
8. Learning opportunities	0.05	-0.05	-0.09	0.10	-0.09	0.04	0.04	1.00				
9. Market opportunities	-0.11	-0.08	-0.15	-0.02	-0.04	0.12	0.11	0.07	1.00			
10. Host-country restriction	0.04	-0.03	0.08	0.21*	-0.17*	-0.04	-0.05	0.01	0.00	1.00		
11. Cultural barrier	-0.10	-0.05	-0.06	-0.07	0.36**	0.08	0.12	0.02	0.01	-0.11	1.00	
12. Cognitive pressure	0.01	0.09	0.01	-0.14	0.08	-0.13	-0.17*	-0.15	0.07	-0.12	0.05	1.00
Mean	3.53	0.57	0.45	0.80	2.39	2.53	3.31	2.97	3.54	3.17	2.55	3.33
Standard Deviation	3.87	0.50	0.50	0.40	0.70	0.84	0.75	0.85	0.62	0.78	0.79	1.05

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

## Analysis and Results

### Nonresponse-Bias Tests

We performed nonresponse-bias tests following the extrapolation method based on the assumption that later respondents are characteristically more similar to nonrespondents than early respondents (Armstrong & Overton, 1977). Such a method of nonresponse-bias

test is commonly used when data of nonrespondents cannot be collected. To perform the tests, we divided our sample into two equal subsamples of early- and late-response groups using the time order of the returned questionnaires. We conducted  $t$ -tests to compare the group mean differences on all of the variables included in our analysis. The results of these  $t$ -tests are presented in Table 3. No significant mean difference was found between the early- and late-response groups. We could

TABLE 3 Nonresponse-Bias  $t$ -Tests

	Early Responses ( $n = 69$ )		Late Responses ( $n = 69$ )		Student's $t$	$P$
	Mean	S.D.	Mean	S.D.		
FDI entry mode (WOS = 1)	0.536	0.502	0.623	0.488	-1.031	0.304
Size (annual sales 2005)	3.623	3.945	3.435	3.817	0.285	0.776
Industry (manufacturing = 1)	0.594	0.495	0.536	0.502	0.683	0.496
State ownership (SOE = 1)	0.507	0.504	0.391	0.492	1.368	0.173
Establishment (greenfield = 1)	0.783	0.415	0.812	0.394	-0.421	0.675
Country risk	2.362	0.721	2.408	0.688	-0.383	0.703
Low-cost advantage	2.498	0.806	2.570	0.878	-0.505	0.614
Competition intensity	3.357	0.755	3.271	0.742	0.683	0.496
Learning opportunities	2.938	0.873	2.993	0.840	-0.373	0.710
Market opportunities	3.565	0.581	3.522	0.661	0.410	0.682
Host-country restriction	3.188	0.772	3.158	0.779	0.220	0.827
Cultural barrier	2.551	0.782	2.558	0.798	-0.054	0.957
Cognitive pressure	3.319	0.993	3.337	1.113	-0.101	0.920

then conclude that nonresponse bias was not present in our data.

### Model Comparison

We estimated binary logit models to reveal the determinants of a firm's FDI entry-mode choice between a WOS and a JV option. Four alternative models were tested that were based on the resource-based view (Model 1), industry-based view (Model 2), institution-based view (Model 3), and the strategy tripod integrating the three views (Model 4). By testing these alternative models, we could gain a quantitative view of the improvement from the individual models to the strategy tripod model. The results are presented in Table 4.

We used three types of model-fit indicators to compare the models. We first checked the likelihood chi-square ratio, which is twice the difference between log likelihoods of the estimated model and the base model (model with only a constant). All four models had a chi-square significant at the 0.001 level. This suggested that all models, with their respective sets of independent

variables, could effectively differentiate between the WOS entries and JV entries in the data. However, due to the different number of parameters estimated, the chi-square significance provided little evidence for model comparison. We then calculated the Akaike's information criterion (AIC) to compare the models. The AIC (and its variations) provides relative measures of goodness of fit across models with a different number of parameters (Bozdogan, 1987). As shown in Table 4, Model 4 yielded the smallest AIC, indicating the best model fit. We also checked some variations of AIC, including AIC with a penalty factor of three (AIC3), Bayesian information criterion (BIC), and the consistent Akaike's information criterion (CAIC). As expected, all these criteria led to the same conclusion—that the full model (Model 4) best explained the data. Lastly, we examined the model classification hit rate, which is the percentage of correct prediction of the dependent variable based on the estimated model. The hit rate provides evidence of a model's predictive ability. As expected, Model 4 had the highest hit rate. It was also the only model that achieved a hit-

**TABLE 4** Binary Logit Regression Using Different Theoretical Models (WOS = 1, JV = 0)

	Model 1 (Resource-Based)	Model 2 (Industry-Based)	Model 3 (Institution-Based)	Model 4 (Integrated)
Constant	-1.72	-1.23	6.12***	5.22†
<i>Control Variables:</i>				
Size	0.15*	0.13*	0.17*	0.16*
Industry	0.11	0.19	0.23	0.16
State ownership	-0.53	-0.49	-0.45	-0.58
Establishment	1.36**	1.42**	1.75**	1.85**
Country risk	-0.70*	-0.46	-0.49	-0.73†
<i>Independent Variables (Resource-Based View):</i>				
H1. Low-cost advantage	0.95***			1.17***
<i>Independent Variables (Industry-Based View):</i>				
H2. Competition intensity		0.46		0.22
H3. Learning opportunities		0.84**		0.83**
H4. Market opportunities		-0.78*		-1.06*
<i>Independent Variables (Institutional-Based View):</i>				
H5. Host-country restriction			-0.93**	-1.04**
H6. Cultural barrier			-0.47	-0.75*
H7. Cognitive pressure			-0.68**	-0.61*
Model chi-square	34.84***	39.28***	42.47***	72.21***
Pseudo R-square (Nagelkerke)	0.300	0.333	0.356	0.548
AIC	164.94	164.51	161.32	139.58
Classification hit rate	66.7%	73.9%	72.5%	81.9%

†  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

rate improvement of more than 25% from the chance of random choice. All evidence led to the conclusion that Model 4 was the best among the alternatives.

### Model Robustness

We tested the robustness of our model by estimating alternative models using different criteria for the distinction between a WOS and a JV. Hennart's (1991) definition of a JV uses 95% equity ownership as the cutoff. Following prior FDI entry-mode studies, we used this cutoff criterion in our default model. As an alternative, we followed the strict definition of "wholly owned subsidiary" and used full equity ownership (100%) to qualify as a WOS; foreign ventures with multiple shareholders, regardless of the magnitude of their ownership stake, are defined as JVs. Another cutoff criterion is based on the statistical definitions in the UNCTAD's World Investment Report series. An equity stake of 10% is normally considered as the threshold for the control of assets (see UNCTAD, 2006). Therefore, if the parent firm owns more than 90%

of the equity capital in its foreign venture, it automatically excludes control by minority shareholders. Although ownership and control are not always proportionately associated, for the purposes of the model robustness test, we used 90% as an alternative cutoff between a WOS and a JV. Lastly, some prior studies have also adopted an 80% cutoff, in accordance with conventional accounting practices that define the minimum necessary equity level to confer control as 20% (Makino & Beamish, 1998). Table 5 shows the estimated models using the four alternative cutoff criteria.

As shown in Table 5, despite using different cutoff criteria on the dependent variable, the models were all significant, with consistent model goodness-of-fit and classification hit rate. The significance levels of independent variables were also consistent across the four alternative models, with only one exception: cognitive pressure was insignificant in the model using an 80% cutoff but significant in all other alternative models. Overall, the robustness of the model was deemed satisfactory.

**TABLE 5** Binary Logit Regression Using Different Entry-Mode Cutoffs (WOS = 1, JV = 0)

	80% Cutoff	90% Cutoff	95% Cutoff (Default)	100% Cutoff
Constant	4.77	5.27†	5.22†	2.50
<i>Control Variables:</i>				
Size	0.15*	0.14*	0.16*	0.15*
Industry	-0.14	-0.03	0.16	0.16
State ownership	-0.43	-0.30	-0.58	-0.81
Establishment	1.58*	1.97**	1.85**	1.89**
Country risk	-0.53	-0.66†	-0.73†	-0.71†
<i>Independent Variables (Resource-Based View):</i>				
H1. Low-cost advantage	1.06**	1.13***	1.17***	1.12***
<i>Independent Variables (Industry-Based View):</i>				
H2. Competition intensity	0.08	0.12	0.22	0.41
H3. Learning opportunities	0.92**	0.77**	0.83**	0.75**
H4. Market opportunities	-1.09*	-1.15**	-1.06*	-0.83*
<i>Independent Variables (Institutional-Based View):</i>				
H5. Host-country restriction	-1.04**	-1.07**	-1.04**	-0.79*
H6. Cultural barrier	-0.62†	-0.59†	-0.75*	-0.64†
H7. Cognitive pressure	-0.35	-0.48*	-0.61*	-0.45†
WOS/JV ( $n = 138$ )	86/52	82/56	80/58	78/60
Model chi-square	62.67***	67.15***	72.21***	66.28***
Pseudo $R$ -square (Nagelkerke)	0.497	0.520	0.548	0.511
AIC	144.18	143.23	139.58	146.68
Classification hit rate	81.9%	81.2%	81.9%	83.3%

†  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

## Hypothesis Testing

We tested our hypotheses based on the parameter estimates of the strategy tripod model (see Model 4 results in Table 4). From a resource-based view, Hypothesis 1 states that a positive relationship exists between a firm's low-cost advantage and the likelihood of the firm choosing a WOS entry mode in FDI. This hypothesis was supported, as *low-cost advantage* had a positive coefficient that was statistically significant ( $p = 0.001$ ). Three hypotheses were derived from an industry-based view, covering both the push and pull effects of the industry environment on a firm's strategy formulation. The push-effect hypothesis (Hypothesis 2) suggests a negative relationship between host-industry competition intensity and the likelihood of a WOS entry mode. This relationship was not supported, as *competition intensity* appeared insignificant ( $p = 0.508$ ) in the binary logit regression. The pull-effect hypotheses (Hypotheses 3 and 4) indicate that Chinese firms prefer to use the WOS entry mode to capture learning opportunities, and to use a JV entry mode to capture market opportunities. Both hypotheses were supported. *Learning opportunities* had a positive coefficient significant at the 0.01 level ( $p = 0.002$ ), while *market opportunities* had a negative coefficient significant at the 0.05 level ( $p = 0.010$ ). An institution-based view led to three hypotheses (Hypotheses 5, 6, and 7) addressing the regulative, normative, and cognitive pillars of institution, respectively. All three hypotheses state that when facing institutional pressures, Chinese firms will exchange ownership for le-

gitimacy by choosing a JV entry mode. These hypotheses were all supported. *Host-country restriction* had a negative coefficient significant at the 0.01 level ( $p = 0.007$ ). As expected, *cultural barrier* was associated with a negative coefficient. Although the coefficient sat on the margin of statistical significance ( $p = 0.103$ ) in the individual model (Model 3), it was significant at the 0.05 level in the full model ( $p = 0.030$ ). Lastly, consistent with the other two institutional variables, *Cognitive pressure* had a negative coefficient, indicating an institutional effect in favor of a JV entry mode. The coefficient was significant at the 0.05 level ( $p = 0.017$ ).

## Discussion and Conclusions

### Discussion

Due to its rapid growth in recent years, Chinese outward FDI is emerging as an important research topic, attracting researchers interested in exploring its unique characteristics and determinants. This study extends the literature by investigating the FDI entry strategy of Chinese firms, with a focus on firms' choice between WOS and JV entry mode. Theoretically, we synthesized the resource-, industry-, and institution-based views into a comprehensive FDI entry-mode framework that balances the "strategy tripod" (Peng, 2006; Peng et al., 2008). Empirical supports to the framework and hypotheses were found from a survey study of Chinese outward-investing firms.

From a resource-based view, we argued that Chinese firms enjoy low-cost advantages as the source of their competitiveness. To transfer their low-cost advantage overseas, Chinese firms prefer to minimize partner intervention and maintain operational control. This positive relationship between low-cost advantage and the likelihood of a Chinese firm choosing a WOS entry mode (Hypothesis 1) was supported in our empirical test. This result is consistent with the transaction cost argument that has been widely supported in the literature. What differentiates Chinese firms from developed-country firms is the type of ownership advantage that firms possess and exploit overseas. Our result supported the notion of Rugman and Li (2007) that, from the resource-based view, Chinese outward FDI is fueled by firms' low-cost advantage, which is generally country-specific rather than firm-specific.

From an industry-based view, we proposed that firms pushed by host-industry competition are likely to opt for a JV entry mode for maximum strategic flexibility (Hypothesis 2). This hypothesis was not supported, possibly due to the fact that Chinese firms are not investing overseas for passive reasons such as domestic market saturation

*To transfer their low-cost advantage overseas, Chinese firms prefer to minimize partner intervention and maintain operational control.*

(Cui & Jiang, in press). They either enter a foreign industry that they are confident of competing in or choose to stay home to avoid harsh foreign competition. If Chinese firms decide to enter a highly competitive foreign industry, despite the option of entering a less competitive foreign industry or staying home, they are likely to be motivated by other strategic purposes. Gaining competitive flexibility is therefore not a primary determinant of the FDI entry-mode choice. In contrast to the ones related to the industry push effects, both of our hypotheses related to the industry pull effects were supported. Chinese firms prefer a WOS entry mode to capture host-industry learning opportunities (Hypothesis 3). This result supports the proposition that emerging-market firms take radical approaches in overseas asset seeking (Cui & Jiang, in press; Luo & Tung, 2007). Such radical approaches support the accelerated internationalization of Chinese firms that started from a latecomer's position. A JV, on the other hand, may limit the learning opportunities and hinder the learning process. However, a JV is preferred when Chinese firms aim to capture host-industry market opportunities (Hypothesis 4). In this aspect, Chinese firms do not differ from developed-country firms. A JV enables the acquisition of first-mover advantages, the benefits of which outweigh the cost of sharing profits.

From an institution-based view, we argued that under the pressure of regulative, normative, and cognitive institutional forces, Chinese firms exchange ownership for legitimacy. The higher the pressure, the more likely the Chinese investing firms will opt for a JV entry mode. Hypothesis 5 addresses the regulative institutional pressure, which is the level of perceived host-country restriction, while Hypothesis 6 addresses the normative institutional pressure, which is the host country's perceived cultural barrier for foreign investors. Our empirical test results supported both of these hypotheses. The same results were found in prior studies conducted on developed-country firms (Chan & Makino, 2007; Hennart & Larimo, 1998; Yiu & Makino, 2002), suggesting that Chinese firms react to regulative and normative institutional pressures in the same way as developed-country firms. On the cognitive side, we argue that cognitive pressure urges Chinese firms to choose a JV entry mode, which is historically preferred by the Chinese government (Hypothesis 7). With this hypothesis supported by our results, we confirmed the difference between Chinese and developed-country firms with regard to cognitive institutions. In a developed-country context, a cognitive structure is established on the basis of the market-based performance of prior practices and, accordingly, the level of cognitive institutional pressure increases as performance evidence accumulates.

As a result, the more positive performance evidence of a certain entry mode, the more pressure the follower entrants experience to adopt the same entry mode (Lu, 2002). In Chinese outward FDI, however, the evaluation of prior-entry performance is not clearly formed due to the short history and variety of FDI motivations. Instead of market feedback, the Chinese government's judgment on the appropriateness of a certain entry mode is readily available to follower entrants. The Chinese government has maintained strong influence over its outward FDI through an official approval system, and the government's preference for an FDI entry mode is institutionalized in the mind-sets of decision makers. For Chinese firms, the cognitive institutional pressure comes directly from the government's approval process. Firms perceive different levels of government pressure, and such pressure is reflected in their FDI entry-mode decisions.

### Theoretical Implications

The findings of this study suggest that firm resource, industry, and institutional variables collectively determine the FDI entry-mode choice of Chinese firms. Specifically, this study offers theoretical implications to all three legs of the "strategic tripod" as determinants of emerging economy (EE) firms' internationalization strategy (see Peng et al., 2008).

From the resource-based view, the majority of EE firms transfer country-specific advantages as opposed to firm-specific advantages when they invest overseas. While prior studies mainly focus on the transaction costs associated with firm-specific resources (Anderson & Gatignon, 1986; Hennart, 1991), this study finds that transaction costs cannot be neglected in the transferring and deploying of country-specific advantages. For EE firms, instead of protecting firm-specific assets from partner opportunism, transaction costs arise when low-cost supply chains of EE firms are disconnected, obscuring home-based low-cost advantages from being transferred overseas efficiently. Thus, the management of supply chain across borders plays an important role in FDI by EE firms. It is essential to view the low-cost advantages of EE firms from a supply-chain perspective rather than an individual firm perspective, as the international competition now increasingly takes place among supply chains rather than individual firms (Christopher, Peck, & Towill, 2006). Expanding the resource-based view from a firm perspective to a supply-chain perspective should enhance our understanding of internationalization strategies of both EE and developed-country multinationals.

From the industry-based view, this study finds that Chinese firms' FDI entry mode is determined by the pull

effect rather than the push effect of their respective industries. This finding confirms prior studies suggesting that EE firms are typically market-seeking and strategic-asset-seeking in their FDI (Cui & Jiang, 2009; Luo & Tung, 2007; Rui & Yip, 2008). To achieve such goals, EE firms need to both rely on the complementary resources of potential partners and be prepared to compete with local incumbents and other foreign entrants for survival in an increasingly globalized industry. Generic competitive strategies are no longer sufficient for internationalizing EE firms that carry dual purposes of cooperation and competition when entering a foreign industry. A “co-opetition” strategy must be developed for both short-term survival and long-term competitive catch-up (Luo & Rui, 2009). The dual purposes of “co-opetition” can further increase the complexity of an FDI entry-mode decision. As supported by this study, the learning and market-seeking purposes of Chinese firms led to the choice of a different FDI entry mode. The actual entry-mode decision made by a Chinese firm will likely be dependent on the relative urgency of the dual purposes, and the potential cost and value of a real option that enables the firm to switch its FDI entry mode at a later stage. Although real option theory has generally been adapted to explain the market-entry strategies of developed-country multinationals in emerging markets facing environmental instability (Chi, 2000; Tong & Li, 2008), this study suggests that real option theory can also provide insights into the market-entry strategies of EE firms who may change the priority of the dual purposes during their presence in a foreign industry.

From the institution-based view, this study highlights the difference regarding the cognitive pillar of institutions between EE firms and developed-country firms. The cognitive pressures perceived by Chinese firms are largely related to home-country government influence rather than market responses. This finding conforms to recent studies on EE firms that emphasize the role of home institutions, especially home-country government, in firms’ internationalization strategies (Luo et al., 2009; Peng et al., 2008). The fact that firms react to the home-country institutional environment differently suggests that there are factors internal to a firm that determine the firm’s response to external institutional pressures. As Oliver (1991) pointed out, as active agents, firms respond strategically, not passively, to external institutional pressures. Our findings show that Chinese firms perceive different levels of home-country institutional pressure and respond differently in their choice of FDI entry mode. This suggests that an active agency perspective (Oliver, 1991) should be introduced into the study of EE firms’ internationalization strategy from an institutional

perspective. Furthermore, firms’ different responses may also relate to their corporate governance issues. Although not directly tested in this study, state-owned firms may be more inclined to adhere to the expectations of home-country government than private firms. When an EE firm holds both state and nonstate ownerships (which is an increasingly common situation given the privatization program in most of the emerging economies), the potential principal-principal conflicts (Dharwadkar, George, & Brandes, 2000; Young, Peng, Ahlstrom, Bruton, & Jiang, 2008) may be intensified under strong home-country institutional pressure and, consequently, complicate the internationalization strategies of EE firms. It is therefore necessary to incorporate corporate governance factors into the examination of internationalization strategies of EE firms.

### Practical Implications

The results of this study lead to some important managerial implications. As previously discussed, being the latecomers in outward FDI, Chinese firms have limited experiential capability to tackle the complexity of an FDI entry-mode decision. The findings of this study offer a frame of reference based on which of these inexperienced Chinese firms can focus their limited managerial resources on a number of critical determinant factors. In general, firms should examine their internal resources and their external industrial and institutional environments. Chinese firms conducting market-seeking FDI face a trade-off between the internalization advantages of a WOS entry mode and the first-mover advantage of a JV entry mode. The relative importance of the two is dependent on the criticality of maintaining and exploiting low-cost advantages on the one hand and the attractiveness and dynamism of the target market on the other. Chinese firms conducting asset-seeking FDI should secure learning opportunities through a WOS entry mode, as opposed to the JV approach, which has proven to be constraining. Overall, regardless of the motives of the FDI, Chinese firms should be responsive to institutional environments and make their FDI entry mode accordingly. Firms investing in foreign resource or infrastructure industries may be especially subject to institutional scrutiny both at home and overseas. This is because such investments are likely to be large-scale, and therefore raise risk concerns for the Chinese government, especially when there are state assets involved. In host countries, foreign investments in such industries often attract political and social criticism and resistance.

The study also has policy implications. The Chinese government implements policies to stimulate outward

FDI, especially investments that are aimed to enhance the global competitiveness of Chinese firms. Our findings suggest that a WOS can effectively facilitate the learning process and therefore is preferred by Chinese firms conducting asset-seeking FDI. However, the choice of a WOS is constrained by institutional pressures. The Chinese government can help relieve the institutional pressures, both directly and indirectly. In terms of cognitive institutional pressure, the government can facilitate the transformation of the cognitive system from government-influenced to market-feedback (performance) based. This will require further relaxation of the government's outward FDI approval system and the establishment of a performance evaluation and feedback system. Currently, the government is conducting an annual inspection of outward FDI performance. We suggest that the results of the inspection be made public so that Chinese firms can gather intelligence of best practices and escape from bureaucratic mind-sets. The Chinese government can also negotiate reciprocal FDI agreements with foreign governments and conduct campaigns bolstering China's national image and culture among international communities. Such efforts may indirectly reduce the regulative and cognitive institutional pressures received by Chinese firms overseas.

### Future Research Directions

We propose three directions for future research on the entry-mode decisions of Chinese outward FDI. In this study, we specifically focused on WOS and JV entry modes. In practice, firms may face more complex decisions of choosing not only between these two alternatives, but also among different types of JV entry mode—namely, majority, equal, and minority JV. Prior studies have concluded that these three types of JV involve different levels of control, risk, and resource commitment,

which may impose different management and strategic issues (Gatignon & Anderson, 1988; Pan & Tse, 2000). Future research can employ a multinomial logit model to investigate the determinants of different JV entry-mode choices. The second direction of future research is to link the FDI entry-mode decision with FDI performance, which will complete the full structure of the strategy tripod (Peng, 2006, p. 15). A number of prior studies have investigated the influence of the FDI entry-mode decision on the FDI performance of developed-country firms (Aulakh & Kotabe, 1997; Brouthers, 2002). While a similar approach can be adopted in future research on the performance of Chinese outward FDI, major challenges will exist in terms of the measurement of performance and the access to firms' FDI performance information. Lastly, future research can provide industry-specific analysis and more comprehensive cross-industry comparisons. The current study is limited by its sample size to conduct statistical analysis on specific industry subsamples. To perform industry-specific analysis, it is ideal to have a larger sample with sufficient observations for specific industry subsamples. This will be achievable in the future as the population of Chinese outward-investing firms grows and researchers gain better access to both aggregated and firm-level data on Chinese outward FDI.

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