

**GREENFIELD OR M&A? AN INSTITUTIONAL AND LEARNING PERSPECTIVE ON  
THE ESTABLISHMENT MODE CHOICE OF CHINESE OUTWARD INVESTMENTS**

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# **GREENFIELD OR M&A? AN INSTITUTIONAL AND LEARNING PERSPECTIVE ON THE ESTABLISHMENT MODE CHOICE OF CHINESE OUTWARD INVESTMENTS**

## **ABSTRACT**

We develop and test a model of Chinese greenfield investments using institutional and learning theories. Both the host country institutional context and the firm's international characteristics affect the establishment mode. Using 152 Chinese emerging market multinationals (EMNEs) with 401 subsidiaries distributed in 26 countries from 2003 to 2013, we build a database of 284 pairs of host country/Chinese firms to test two hypotheses. We find that, first, governance environment affects the establishment mode: greenfield investments are preferred over acquisitions in relation-based host markets, and M&As are preferred in rule-based countries. Second, international depth intensity (i.e. previous investments in the same host market) moderates the effect of the governance environment on the establishment mode. Firms with greater international depth use more M&As in relation-based markets and more greenfield investments in rule-based markets, suggesting that this type of learning reduces acquisition uncertainty in the former and increases the self-confidence of Chinese EMNEs in the latter.

**Keywords:** institutional theory; governance environment; rule-based and relation-based; establishment mode; greenfield and M&A; emerging markets multinationals.

## 1. INTRODUCTION

The establishment mode, namely, whether to buy an existing firm or to create an international operation from scratch, is a key strategic choice for foreign direct investors, and international business scholars have accumulated a rich literature on this topic (Morschett et al., 2010; Dikova and Brothers, 2016). While related to the modes of entry, the establishment mode is theoretically and empirically independent of the entry choice (Brouthers and Hennart, 2007; Padmanabhan and Cho, 1996), since the latter considers the choice between market and hierarchy while the former focuses on the alternatives available within the hierarchical (or wholly-owned) option. Wholly-owned modalities provide opportunities for “learning by doing”, a window on the market which allows firms to reduce uncertainties through the mobilization of knowledge of the host country (Hashai, Asmussen, Benito and Petersen, 2010).

New attempts to study establishment modes must be able to identify new empirical patterns, new countries of origin, or new theoretical explanations (Hennart and Slangen, 2015). Indeed, as more and more new firms - mostly from new and emerging economies - go abroad, new patterns do emerge and new explanations are called for (Buckley et al., 2007; Alon et al., 2011). Brouthers and Hennart (2007) suggested that factors differentiating the establishment of greenfield ventures vs. acquisitions are still unclear, that testing existing theories in countries at different levels of development is needed, and that boundary choices in the international context need to be expanded. Hennart and Slangen (2015) suggested that more investment mode studies are needed to better understand their determinants particularly in different contexts. In a review of the establishment modes literature, Dikova and Brouthers (2016) wrote that we know far less about firms entering into or coming from transitional or emerging markets and called for more research in this area. Indeed, one serious weakness of modal choice research in international business is the overemphasis on developed countries (Dikova and Brothers, 2016). Brouthers and Hennart (2007), for example, reviewed modal choice research and found that, in terms of the investment home country, North America dominates the literature and, to a lesser extent, Western Europe, Japan, Korea, and Singapore. This deficiency hinders our ability to generalize across emerging markets firm’s global investment decisions. Encouragingly, the globalization and the strategies of emerging markets’ multinationals have come into focus in recent years (Bonaglia et al., 2007; Ramamurti and Sigh, 2009). Hernandez and Nieto (2015) have tried to rectify the problem by distinguishing between positive and negative distances, extending the literature on asymmetric effects of institutional distance (see also Cuervo-Cazurra and Genc, 2011; De Beule, Elia and Piscitello, 2014; Shenkar, 2001).

However, the literature is still far away from providing a dominant theory explaining the establishment mode of multinational firms in general and of EMNEs in particular. Consider, for instance, the inconsistent findings of the institutional distance literature (e.g., Dikova 2009; Dikova and Sahib, 2013). Demirbag et al. (2008) suggested that, among the establishment modes, investment risk is associated with greenfield investments and that cultural distance has no impact in the case of Turkey as the host market. Dikova (2012) also finds that institutional distance is associated with greenfield investment. Conversely, using the arguments of transaction cost economics (TCE), Brouthers and Brouthers (2000) suggested that acquisitions will lower the transaction costs related to environmental uncertainty.

Given the contrasting findings on the establishment mode and the lack of evidence on this topic in the EMNEs literature, this article contributes an explanation of the establishment modal choices of Chinese multinationals using both the host market governance environment and company characteristics in terms of internationalization patterns. While the research on Chinese acquisitions is quickly growing (Deng, 2009), what is particularly missing in the Chinese outward foreign direct investment (OFDI) literature is the use of greenfield investments (Alon et al., 2018). Xie et al., (2017) and Alon et al. (2018) call for more research on Chinese greenfield investments particularly using the institution-based view and its various manifestations as a starting point. We contribute to theory by building on the institutional view (North, 1990), in general, and Li's (2009) theory of governance environment, in particular, through an examination of the specific case of Chinese greenfield investments. We argue that the governance environment of the host countries will have a significant impact on the establishment modes (Li and Filer, 2007). Countries with rule-based governance environment are more likely to attract M&As as due diligence on the investment is more reliable, while countries with relation-based governance environment are more likely to attract greenfield investments as they allow full control and therefore a better protection of the investments with first-hand information, thus reducing the risks of information asymmetry and property rights violations by other stakeholders and higher assurance that "you get what you buy" (Wu et al., 2012). While in relation-based countries the choice of greenfield investment will be prompted by the need to adopt a risk-reduction approach, thus being the result of constrained freedom in the decision-making process, in rule-based countries, where Chinese MNEs have more liberty in choosing their establishment mode, they will prefer M&A over greenfield due to a need to quickly catch up with developed country multinationals, obtain key advanced technologies, and get closer to customers (Anderson and Sutherland, 2015). M&As in rule-based countries are also helpful for Chinese EMNEs in managing the institutional difference with respect to their home-country, which relies on a relation-based environment.

However, the establishment mode choice of Chinese EMNEs will depend also on their international experience. Indeed, going global allows Chinese multinationals to learn from new environments (Li et al., 2018). Specifically, learning can take place either across different countries, i.e. through a breadth strategy, or within one specific country, i.e. through a depth strategy. The latter has been shown to be more effective in capturing knowledge externalities, increasing organizational learning and performance, and achieving the necessary threshold to become “insiders” in the host country (Rosenkopf and Almeida, 2003; Kafouros, Buckley and Clegg, 2012), effectively reducing the liability of foreignness (Johanson and Vahlne, 2009).

We contribute to the literatures of establishment modes and emerging markets multinationals by developing a governance environment model moderated by host country learning by the firm. We test our hypotheses using a database of Chinese investments abroad undertaken from 2003 to 2013 by 152 Chinese EMNEs controlling 401 subsidiaries distributed in 26 countries. We combined these data at the portfolio level and we built a final database of 284 pairs of host country/Chinese firms. We find that (i) greenfield investments are less preferred than acquisitions in rule-based host markets; (ii) firms’ international depth strategy can overcome the negative effect of rule-based governance environment on greenfield investments. In particular, with more knowledge of the host country, the likelihood of choosing greenfield investments by Chinese EMNEs increases in rule-based economies and decreases in relation-based economies.

The remainder of the paper is organized as follows. In the next section, we briefly review the literature on Chinese OFDI to provide the context before explaining the governance environment theory of establishment modes. This is followed by our hypotheses, methodology, and analyses. We then describe the results and discuss their implications.

## **2. LITERATURE**

Once a firm decides that it wants to fully internalize the foreign operations, it can choose between a greenfield wholly-owned subsidiary or a merger and acquisition (M&A). Both greenfield investments and M&As are high-control, high-commitment and high-risk strategies for entering new markets. Greenfield investment as a foreign expansion strategy is associated with establishing a start-up, hiring and training new employees, sending expatriates, and gradually building the business with the knowledge of local institutions. It is a strategy to exploit firm-specific advantages that are difficult to separate from the parent organization (Hennart and Park, 1993). In contrast to M&As, greenfield investments use the investor’s technology, capital, and know-how (Meyer and Estrin, 2001). In traditional acquisitions, resources, including technology, market power, knowledge, managerial capabilities and/or capital, are held by the local firm. M&As

and greenfield investments can be seen as alternative investment strategies with differing levels of local resource deployment, adaptation and market-specific transaction costs. Greenfield entry is easier when investors control key resources (i.e., firm-specific assets such as technology and know-how, excess managerial resources, and financial capital) that can be internally transferred and can be used as a source of competitive advantage in the host market (Meyer and Estrin, 2001). To build our hypotheses below, we examine how Chinese investors internationalize and internalize their foreign operations and propose both a direct and a moderating impact.

## **2.1. Chinese foreign direct investments and establishment mode choice**

Strides have been made in some areas of the study on Chinese investments abroad, such as the rich findings on the determinants of Chinese OFDI (e.g., Buckley et al., 2007; Alon, 2010; Gammeltoft et al., 2010; Ramasamy et al., 2012; Lattemann et al., 2017). If we briefly review and summarize the main findings of the study on the globalization of Chinese firms, a fair characterization is that the institutional logic of Chinese investors appears to be different from that of the West. Writing about the new presence of China in Africa, van Dijk (2009) remarks that Beijing's views on resource acquisition strategies stand in contrast to the West's. While the West values free markets, conditional loans, capacity building and technology transfer, China prefers the strong role of the state, non-conditionality, the use of Chinese companies, labour and technology and no transfer of knowledge and experience. Observing Chinese investors in risky, developing countries, some authors have concluded that the Chinese are less sensitive to political risk or operate under a different set of assumptions (Buckley et al., 2007).

Ramamurti and Singh (2009) observed that Chinese firms are not following the incremental and gradual internationalization process adopted by the West. Instead, they seem to internationalize before having a competitive advantage, as in the case of Geely or Lenovo, and internationalize in the 'wrong way', that is, too fast, with too much equity and in the 'wrong' countries, namely high-risk countries. Ramamurti (2012) later explained that the globalization context is different for Chinese multinationals: they come from mostly mature industries and want to escape domestic institutions. At the same time, they go out to signal strength, leverage home country advantage and learn new business models. However, most studies about Chinese OFDI generally do not differentiate between greenfield and acquisitions, as such generalizations are made about investment *per se* without considering the establishment mode. A notable exception is Anderson and Sutherland (2015), who focus on a single host market--the U.S.--where Chinese EMNEs used acquisitions as the primary mode for obtaining strategic assets (Anderson and Sutherland, 2015). Research on Chinese use of greenfield investments is still scant (Alon et al., 2018).

Since the research on Chinese establishment modes is limited, we opt to use the extant literature for the decision on establishment modes, and observe that both market-based considerations and firm-specific assets affect the decision to use greenfield vs. mergers and acquisitions. For example, Barkema et al. (1996) suggested that cultural and psychic distances can increase the cost of integration and lower the likelihood of acquisitions in favor of greenfield investments. Indeed, cultural and institutional distances were found to be relevant to the establishment mode (Drogendijk and Slangen, 2006; Arslan and Larimo 2011). Examining Finnish companies in emerging economies of Central and Eastern Europe, Arslan and Larimo (2011) showed that informal institutional distance results in a preference of greenfield investment while formal distance results in a preference for acquisitions. Dow and Larimo (2011) suggested that international expansion can be divided into related and unrelated product markets and found that related markets are closely aligned with acquisitions while unrelated markets lead to more greenfield investments. Transaction cost economics (TCE) suggests that host country experience increases tacit knowledge on the local economy and the realization of higher transaction costs (Hennart and Park 1993), while the resource-based view (RBV) suggests that locally inexperienced firms will purchase complementary capabilities, making acquisition more likely (Chen, 2008). The organizational learning perspective suggests that companies operating in diverse national settings can develop more capabilities (Hashai et al., 2010), which, in turn, increase a firm's propensity to use greenfield rather than M&A in foreign expansion (Barkema and Vermeulen, 1998).

We believe that the governance environment theory of the firm, rooted in the institution-based view and in the learning perspective, can help to explain the Chinese multinationals' establishment mode choices. Therefore, we continue with a review of these theories leading to our hypotheses.

## **2.2. Governance Environment Theory and establishment mode choice**

### *Governance Environment Theory*

The institution-based view (IBV) has grown in importance in the international business literature and has risen to the level of a paradigm with multiple branches, such as the economic branch (North, 1990) and the sociology branch (DiMaggio and Powell, 1983). These two streams have been thoroughly discussed in the establishment mode literature (e.g., Hernandez and Nieto, 2015; Dikova and Brouthers, 2016; Slangen and Hennart, 2007). Within the economic branch of institutional theory (North, 1990), Li and colleagues (2004, 2007, 2009, 2013) have developed a governance environment theory which divides countries into relation- and rule-based societies. Li and Filer (2007, Pp 82-83) defined governance environment as “the macro social, political, legal,

and economic institutions that shape and constrain micro governance behavior in social, political, and economic exchanges, namely, what means (i.e., private or public) an investor can resort to in a given social environment to protect his/her rights.” Using this definition, we are able to capture not only the impact of public institutions and policies, as proposed by Globerman and Shapiro (2003), but also of informal and social institutions, as suggested by North (1990). Li and his colleagues have used the governance-based approach, rooted in institutional theory, to explain both trade and investment flows (Li et al. 2007 and 2009).

Based on Li et al.'s (2004) work, we define a society as having a *rule-based governance environment* if it has: a well-established and transparent legal infrastructure with laws fairly and universally enforced, free and reliable public information, exchanges conducted with explicit and third-party verifiable agreements/contracts, low entry and exit barriers for industry and socioeconomic organizations, and a high level of generalized trust. For a rule-based governance environment to function effectively and efficiently, a reliable, efficient information infrastructure is required to provide accurate micro-level information on business activities (Li et al. 2004). Two elements are vital to such an infrastructure. They are the free flow of competing information (freedom of the press) and low noise in public business information, such as accounting and auditing information. Rule-based societies must have a high level of generalized trust—confidence placed on strangers—to enforce rules efficiently. A necessary condition for a rule-based system to work efficiently is the establishment of a generalized morality that internalizes a set of norms that supports a public ordering among citizens (Platteau, 1994a and 1994b). That rule-based societies tend to have a higher-level trust has been argued by scholars in different fields (Pearce, 2001; Child, 2001; Fukuyama, 1995). While a perfect rule-based society may not be attainable, the best approximation is constitutional democracy, which is characterized by free and relatively frequent elections, checks and balances between the legislative, judiciary, and executive branches, and the separation of powers (Burns, et al., 2001). Empirically, we observe a close association between rule of law and a democratic political system (Freedom House, 2017; Cato Institute 2016).

In contrast, a *relation-based governance environment* has opaque and unfair laws whose enforcement is partial and selective. They are further characterized by the use of implicit agreements that cannot be verified by a third party, protection of rights and interests that rely on person-specific and non-transferable private connections, high entry and exit barriers for industry and socioeconomic organizations, and an informal social network woven by personal loyalty rather than generalized trust. In relation-based societies, accounting and auditing professionals tend to be less independent and their standards tend to be lax. Information disclosure by listed companies tends to be unreliable. Scholars have found that countries with a poor legal system and a high level



of corruption (a symptom of relation-based governance) tend to have loose accounting standards in terms of disclosure rules (Scofield and Wilhelm, 2004; Nobes, 2000). Unlike rule-based systems, relation-based societies are characterized by highly untrustworthy public business information and by government control over the mass media, which blocks the free flow of information. In addition to--and closely related to--the weakness of the public information infrastructure (lack of press freedom and low accounting standards), relation-based societies tend to have a lower level of generalized (public) trust. Social norms in relation-based societies emphasize personal loyalty as opposed to public trust (Uslaner, 1999; Pearce, 2001). Evidence of the coexistence of low levels of generalized trust, lack of press freedom, and lack of rule of law in developing countries indicates a close association between the absence of a rule-based system and the absence of a reliable information infrastructure; these conditions seem to be mutually reinforcing (Reporters Without Borders, 2017; World Value Survey 2010-2014; Freedom House, 2017). Because the rulemaking and enforcement tend to be unfair, opaque, and influenced by personal connections, people in relation-based societies tend to avoid the public rules. As a result, people in relation-based societies tend not to rely on publicly verifiable information. Instead, they rely on private information from insiders and rumors to conduct socioeconomic exchanges and protect their interests. In relation-based societies, it is common for the legislative and judiciary branches either to be non-existent, or to be weak and overshadowed by the executive branch, which tends to be totally controlled by a ruler (or a ruling party). The executive branch makes, applies, and interprets the rules, with few checks and balances (Almond, 1960; Martin, 1999). As a result, rules tend to be biased toward the interests of the ruler(s).

Since public rules tend to be unfair and inefficient and law enforcement officials tend to be corrupt, governance in a relation-based society relies on private enforcement and personal relations with "insiders" (such as officials, industry leaders, or even underground organizations). As a result, people and firms in a relation-based society tend to circumvent legal channels to obtain public services and goods and to protect their interests. However, this does not mean that in a relation-based society people cannot protect their property rights at all. When rules are not fair and enforcement is not universal, citizens and businesses tend to avoid formal legal procedures and enforcement. Instead, they systematically rely on private relations to govern their rights and interests. Only a minimum of law and order are needed in such an environment to conduct business, provided that one has relations. In order to cultivate good relationships with people in power, citizens and firms in relation-based society are forced to resort to bribery. This is why relation-based countries tend to have a high level of corruption (Li and Filer 2007; Transparency

International 2016). Thus, the governance environment theory views corruption as a symptom, not a cause, of a relation-based governance environment.

Unlike rule-based governance, relation-based governance requires only limited public order since people and firms primarily rely on private ordering to protect their interests in social and economic exchanges. As long as there are no rampant robberies or confiscations, they can conduct business and make transactions. Thus, in general, relation-based societies do not need to make heavy investment in establishing elaborate legal infrastructure, avoiding the huge fixed costs that their rule-based counterparts necessarily incur. But in relation-based governance, people and firms need to search, evaluate and follow up with each and every partner in exchanges. To minimize the costs of doing these tasks, people and firms first engage in exchanges with people they know well, such as family members. As the scale and scope of their exchanges grow and their family members are exhausted, their second-best choice to keep their transaction costs low is to engage with friends and neighbors. After that, reluctantly, their last choice is to deal with strangers, as they are the most costly to screen, test, and monitor. Thus, as economic exchanges of people and firms in a relation-based society expand from local, regional, national, to worldwide, the number of new, non-local entities they have to deal with increases and the additional costs of dealing with these new entities rise significantly. In general, contrary to the rule-based system, the relation-based governance system has few fixed costs but increasing marginal costs as the scale and scope of the transactions expand. The differences between rule based and relation-based societies are summarized in Table 1.

Insert Table 1 Here

#### *Governance environment and establishment mode of Chinese EMNEs*

International mergers and acquisitions involve taking over assets from the host market and imply a high-level of internalization, entailing a high degree of resources, commitment and risk. The firm in this case can benefit from new technologies and access to new markets (Barkema and Vermeulen, 1998). Firms with few technological capabilities are more likely to acquire innovative firms that have them (Granstrand and Sjolandre, 1990). Such is the case for many Chinese strategic-asset acquisitions in Europe and North America (Anderson and Sutherland 2015).

The relation-based governance environment is especially hazardous for mergers and acquisitions. First, in relation-based societies there is a dearth of reliable public information and a low level of general trust. Accounting and auditing standards are lower, the operations of publicly listed companies are less transparent, and financial information are easily altered by insiders. The acquired company can manipulate its financial, consumer and supplier information by providing

false data. Second, due to the lack of checks and balances and the lack of freedom of the press, the political system in a relation-based society tends to be dominated by a powerful ruler (or a ruling group). State policies tend to favor local industry leaders and big businesses. This puts the acquirer in a disadvantageous position. Third, the dominant culture of relation-based societies is to avoid interacting with strangers in the society, as they do not trust and tend to take advantages of strangers (Li and Filer, 2007), which implies that with such a mindset, the managers of relation-based firms are particularly fearful of working with strangers in another relation-based society and thus tend to avoid acquiring foreign entities there.

Conversely, in greenfield investment, due to the investor's direct participation in the creation and management of the operations in the host market, the risk of information asymmetry and property right violations by other stakeholders is substantially reduced. Even in a relation-based system where the state cannot provide impartial and efficient law enforcement, an investor can still effectively protect the technology and business know-how of the investment by relying on the three types of information and monitoring mechanisms: *ex-ante* (ability of background checking before investing), *interim* (ability of ongoing monitoring), and *ex-post* (ability of punishing breaching behaviors) (Li, 2009).

In contrast, the governance environment of rule-based markets is conducive to mergers and acquisitions, especially to mergers and acquisitions by outsiders, such as foreign investors, due to two main features distinguishing it from the relation-based governance environment. First, because of the high level of public trust and well-established public information infrastructures, the quality of publicly available and verifiable information, such as credit rating, accounting and auditing, is high and therefore is trustworthy (Li and Filer, 2007). As we know, such public information plays a vital role in reducing the risk and cost of evaluating potential target companies, thus facilitating mergers and acquisitions. Second, due to the highly developed legal infrastructures in rule-based markets that can impartially and efficiently resolve disputes and thus protect property rights, the risk of the buyer, especially a foreign buyer, being cheated is categorically reduced as compared to that in a relation-based market, and the efficiency and the fairness of legal enforcement if being cheated is substantially increased (Li and Filer, 2007). All these make M&A a preferred choice for foreign investors in rule-based markets.

Due to the ease of evaluating targets afforded by high-quality public information and high efficiency of legal protection for M&As, the appeal of greenfield investment is relatively low in rule-based markets, *ceteris paribus*. As Hill points out, "Greenfield ventures are slower to establish. They are also risky. As with any new venture, a degree of uncertainty is associated with future revenue and profit prospects...A final disadvantage [of greenfield] is the possibility of being

preempted by more aggressive global competitors who enter via acquisitions...” (Hill, 2005, p500). Thus, for a foreign investor in a rule-based market, if acquiring an existing operation and establishing a new operation bear similar cost/benefit prospects, it tends to gravitate towards choosing the former because of the lower uncertainty and speed-to-market associated with M&As. High-quality public information and fair and efficient legal enforcement, inherent in rule-based governance environment, lower the transaction costs and risks of acquisitions.

To summarize, in societies that predominantly rely on relation-based governance, the legal system is not transparent or fair, and the state is unable to enforce laws impartially; thus, people rely on personal connections and informal networks to protect their investments. Greenfield investment allows an investor to directly create its assets and know-how. It also allows the investor to have all the first-hand information about its project. As such, when investing in a relation-based country, managers tend to prefer greenfield investment as opposed to M&A for better protection of their investment through private means. In contrast, rule-based societies, which have a better public information infrastructure, a higher level of public trust, and fairer and more efficient public protection, offer better protection for M&As which have to rely on public and verifiable information. For example, listed companies’ annual reports are more trustworthy, and stock markets show fewer manipulations (Li and Filer, 2007). As a result, rule-based societies tend to see more mergers and acquisitions. Hence, we develop our first hypothesis:

**H1:** *Chinese EMNEs will prefer relatively more greenfield investments in countries that are relation-based and M&As in those that are rule-based.*

### **2.3 The moderating role of International Depth**

Country specific institutions are insufficient in explaining why Chinese firms use different establishment modes in the same region. This is evident in the fact that Chinese companies with different international profiles may use different establishment modes. Consider for example the contrast between *Huawei*, which used greenfield, and *China National Bluestar Co.*, which used acquisition, for their investments in Europe. *Huawei Technologies* established a subsidiary in Norway in 2007 to supply telecommunications equipment to *Telenor* and *Netcom*. By 2010, *Huawei* was the largest telecom supplier in Norway. In contrast, *Elkem*’s acquisition by *China National Bluestar Co.* for \$2 billion in 2011 exemplifies a Chinese acquisition in the same country (Brennan and Bakir, 2016). The acquisition gave *China National Bluestar* strategic assets, a foothold in a global industry, and production and management know-how it can deploy worldwide, especially in China itself. These examples show that two Chinese firms chose different establishment modes in

the same country, suggesting that governance learning experience and capabilities at the firm level may differ.

Penrose (1959) long suggested that experience is the primary source of learning in an organization. Penrose compared the economics of internal and external routes to growth to the alternatives of greenfield vs acquisition, but never attempted to theorize about this choice (Dunning, 2003). Operating in a more multinational setting increases the firm's knowledge on both markets and technologies through more experiences and events (Huber, 1991; March, 1991; Hashai et al., 2010), aggregation of manager and worker experience (Walsh, 1995), and knowledge structure (Cohen and Levinthal, 1994). Global managers are more likely to draw on learned lessons, diverse skills, a broad outlook, and infusion of new ideas from new markets, leading to superior innovation and stronger technological skills (Argyres, 1996).

Learning theories in international business were popularized by the Uppsala model of internationalization, which suggested that firms increase their internationalization, internalization and distance over time as they learn about foreign environments and partners (Johanson and Vahlne, 2009). Investment modes of entry that internalize the foreign operations require a higher commitment and risk and thus take both time and knowledge to implement. Knowledge is, thus, key to both the internationalization and internalization process (Eriksson et al., 2015). Overseas expansion, indeed, enables firms to accumulate knowledge about foreign market conditions (Brouthers and Brouthers, 2000). In particular, firms use M&As to bridge the gap in their knowledge (Dikova and Brouthers, 2016). In contrast, the resource-based view (RBV) of the firm suggests that international expansion helps firms develop organizational routines that lead to firm-specific advantages that can be exploited through greenfield investment, rather than transferred to an acquired unit (Padmanabhan and Cho, 1999). The evidence on the relationship between experience and modal choice internalization is, however, rather mixed, with some finding no relation (Maclayton et al., 1980), negative (Hedlund and Kverneland, 1985), or U-shaped (Erramilli, 1991).

Drawing on the learning theories, and borrowing from insights from institutional theory, we suggest that a firm's in-country experience will give it better understanding of the particular institutions there, whether rule- or relation-based, and regardless of the type of investment mode used. Learning through operating in a particular country (international depth) is different from learning through operating in different countries (international breadth). International depth is a firm's experience and knowledge in a particular host country, as measured by the number of subsidiaries in the country. Kafourous, Buckley and Clegg (2012) suggested that firms with a higher level of depth are better at exploiting knowledge externalities, can search more deeply in the nation

in which they operate, increase organizational learning and performance, and achieve necessary concentration and threshold to integrate in the local environment. Deeply integrated firms are embedded in local networks and settings, which allow them to become “insiders” (Rosenkopf and Almeida, 2003), capitalize on interfirm and intrafirm spill-overs, and increase returns from existing knowledge (Kafourous et al, 2012). Therefore, repeating more than one investment in the same country enables Chinese EMNEs to decrease their liability of foreignness and outsidership (Johanson and Vahlne, 2009), meaning that they will be more familiar with the local institutional environment and more capable of managing differences from their home country. Consequently, they will also be less dependent on the local context in choosing establishment mode.

As for the rule based-countries, the implementation of the depth strategy is likely to decrease Chinese EMNEs’ need to undertake quick M&As, since the company has already employed previous investments to cumulate the (tangible and intangible) resources that are needed to catch-up with the local advanced firms. At the same time, multiple investments in the same (rule-based) country allow Chinese EMNEs to learn about local institutions and become more familiar with the “rules of the game”, allowing them to undertake also greenfield investments besides M&As, depending on the needs of the particular deal. As the Chinese EMNEs gain sufficient knowledge about the institutions of a rule-based country through a sequence of investments, efficient rules will nullify the risk-return difference between the alternative modal strategies, thus allowing firms to take advantage of both establishment modes. Logically, in a country with perfectly fair public rules (laws and policies) that are efficiently and effectively enforced with little friction, the acquisition price of a firm should fully reflect its intrinsic value, and the market for startups should be equally efficient with the unrestricted flow of factor inputs. Under those conditions, there is indeed no arbitrage between choosing greenfield and M&A. Therefore, the depth strategy is expected to provide Chinese EMNEs with both capabilities and confidence that are required to undertake a new investment through a greenfield establishment mode, thus weakening the propensity to select M&As in a rule-based country.

Becoming insiders through a depth strategy is extremely important also in relation-based countries, where outsiders tend to be locked out of the informal network and have no access to the opportunities in the local markets. This is mainly caused by the lack of reliable public information and public enforcement, which is inherent in relation-based environments. Such difficulties are especially pronounced in purchasing existing businesses. Once a foreign firm cultivates some relationships with local partners and gets to invest in projects there, then it would begin to accumulate valuable lessons on how to establish and nurture relationships with key players in the local markets, and to develop the three (*ex ante*, interim, and *ex post*) monitoring capabilities. These

capabilities will enable the foreign firm to more accurately check the background and accounting information of a prospective partner or an acquisition target, keep abreast of its ongoing (private) business dealings, and, most importantly, have effective and credible means to punish breaching behaviors. In sum, through repeated and cumulative learning in the country the foreign firm will overcome the idiosyncratic difficulties in doing business in a relation-based environment. Such experiences will give the firm the connections, insider's knowledge, and thus confidence to go beyond greenfield and to pursue M&As there.

North (1990) offered the following insights about the role of institutions in organizations' performance: "In a world in which there are no increasing returns to institutions and markets are competitive, institutions do not matter" (North, 1990: 95). In our framework, the relation-based environment distorts the market in favor of choosing greenfield, as the low quality of public information (because accounting, rating, or legal information is not trustworthy) makes M&As riskier, whereas rule-based environment alleviates such a concern and therefore indirectly encourages firms to prefer M&As to greenfield as the former is much quicker and substantially reduces the uncertainty which is usually associated with greenfield more. However, international depth can overcome the effect of institutions on firm's operations in the country, making the institutions matter less. Firms low on international depth are more susceptible to relation-based governance environment, preferring to use greenfield investments in countries with such an institutional context and M&As in rule-based economies. Conversely, firms with high international depth will be less dependent on the local institutions, thus reducing the probability of their undertaking greenfield investments in relation-based countries and M&As in rule-based countries.

To summarize, Chinese EMNEs adopting an international depth strategy are likely to become less dependent on the host-country institutional context when planning a new investment, and this is expected to affect also the establishment mode choice. The implementation of a depth strategy in a rule-based country is likely both to decrease the need to undertake quick establishment modes such as M&As (as the Chinese firms have already accumulated the resources that are needed to catch-up with the incumbents) and to increase their propensity to undertake greenfield investments (as the Chinese firms have developed enough capabilities and confidence to directly manage the rule-based institutional context). On the other hand, gaining knowledge on the local environment and building trustworthy networks in relation-based countries reduces the risks of undertaking M&As, thus decreasing the propensity of firms to undertake M&As in relation-based countries. Therefore, we propose, as a second hypothesis, that Chinese EMNEs will be more willing to undertake greenfield investments in rule-based and M&As in relation-based countries when they can rely on an intensive international depth strategy (captured as the ratio between the depth of the

investment in the target host-country and the breadth of the investments across different countries), meaning that the international depth will moderate the relationship between the governance mode of the host countries and the establishment mode of Chinese EMNEs. Based on the above analysis, we propose the following hypothesis about the moderating role of international depth on the effect of governance environment on firm's establishment mode:

**H2:** *The international depth moderates the relationship between the governance environment of the host country and the establishment mode choice of Chinese EMNEs, such that it decreases the preference for greenfield investments in relation-based countries and the preference for M&As in rule-based countries.*

### **3. DATA, VARIABLES, MODEL AND METHODOLOGY**

#### **3.1 Data**

To test our hypotheses, we employ an extensive database that was built through a multiple steps procedure. First, we employed Orbis database (Bureau van Dijk) to identify those Chinese EMNEs that were active in manufacturing industries at the end of the year 2013<sup>1</sup>. As a second step, we collected information about the list of local and foreign subsidiaries, the ownership structure and the balance sheet of the Chinese EMNEs, by combing the data gathered from three databases: Orbis, Lexis Nexis and CSMAR. Third, we identified the establishment mode associated to each subsidiary by matching our data with the following databases: a) Zephyr and SDC Platinum, which provide data on M&As (from 1982 to 2013); and b) fDi Markets, which provide data on greenfield investments (from 2003 to 2013). We finally complemented these data with additional information from World Bank Database (WBD) and from Li and Filer (2007) in order to obtain the explicative and control variables.

After combining these databases, we finally obtained a sample composed of 152 Chinese EMNEs controlling 401 subsidiaries distributed in 26 countries<sup>2</sup>. Figure 1 shows the distribution of

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<sup>1</sup> We collected data in the year 2013 because the project started in 2014 and required about 2 years (i.e. up to the beginning of 2016) to obtain the final database, since we had to access and combine several different data sources to get the information regarding not only each Chinese EMNE but also each subsidiary.

<sup>2</sup> We performed three tests to check whether our reduced sample of 152 firms is representative of the entire initial sample, which was equal to 362 firms, along three different dimensions: the size of the firms (across 10 different classes), the degree of their internationalization (using ten different categories of breadth) and their industry (in terms of primary, manufacturing and services industries). Results, which are available upon request, show that the baseline hypothesis - suggesting that our reduced sample is representative of the entire initial sample - cannot be rejected for any of the three dimension (being Chi-Square and P-values equal to 10.05 and 0.35 for size, 3.72 and 0.93 for internationalization breadth and 1.18 and 0.55 for industry, respectively).



the 401 Chinese subsidiaries across the host countries by establishment mode. It is worth noting that the most targeted host countries are advanced economies, which reveal the preference for rule-based locations offering rich markets and valuable assets. However, our sample also includes a number of investments in emerging economies (e.g. Brazil., India, Indonesia etc.). As regards the establishment mode, we observe a mixed evidence as regards the rule-based countries (which typically correspond to the advanced economies), given that some of them host more greenfield investments than M&As (e.g. USA and UK) while some others host more M&As (e.g. Germany and The Netherlands). Conversely, as regards the relation-based countries (which typically correspond to the less advanced or emerging economies), we observe a predominance of greenfield acquisitions over M&As (with the exception of Brazil). This seems to provide evidence that the institutional environment does play a role in affecting the establishment mode, although up to a certain point, meaning that some other contingencies (such as the firm experience) must be taken into account.

- Insert Figure 1 about here -

Since to test our hypotheses we need to consider the institutional context of the host countries that are targeted by Chinese EMNEs, we employ a portfolio level of analysis accounting for the total investments undertaken by each EMNE in each host country, meaning that the final unit of analysis is the pair Chinese EMNE/host country. In other words, each EMNE will appear in our sample as many times as the number of host countries where the company has set up at least one subsidiary, meaning that, if a Chinese EMNE establishes 5 subsidiaries in the same host country, it will account for one observation, while if it establishes 2 subsidiaries in two different host countries, it will account for two observations, as we consider the portfolio of greenfield vs. M&As investments undertaken by each firm in each host country as unit of analysis. The final number of observations available for our empirical analysis is equal to 284. The first two columns of Table 1 show the distribution of observations across the host countries. In line with the evidence shown by figure 1, the most selected host countries are the United States (62 observations, corresponding to 21.8% of the sample), Germany (40 observations, corresponding to 14.1% of the sample), The Netherlands (23 observations, corresponding to 8.1% of the sample) and United Kingdom (27 observations, corresponding to 7.8% of the sample).

- Insert Table 2 about here -

### **3.2 Variables**

#### *Dependent Variable*

Our dependent variable is *Share of Greenfield Subsidiaries*, which is computed as the percentage of subsidiaries established up to the year 2013 through greenfield investments for each country (source: fDi Markets, Zephyr and SDC Platinum). In our sample, 141 observations (corresponding to 49.65% of the sample) exhibit only greenfield subsidiaries, while 124 observations (i.e. 43.66% of the sample) have been established by employing only M&As. The remaining observations display a portfolio of subsidiaries composed of both greenfield and acquisition investments.

### *Independent Variables*

The first explanatory variable of our interest is the *Rule-based host-country governance*, which provides information about the extent to which a host country has a rule-based governance environment as opposed to a relation-based governance environment. The variable is computed by employing the Governance Environment Indicator (GEI) estimated by Li and Filer (2007). The index is the result of the combination of five variables measuring the governance environment, i.e. political rights (source: Freedom in the World Survey), rule of law (source: Economic Freedom of the World), free press (source: Press Freedom Index), quality of accounting standards (Source: GAAP 2000 survey) and the level of general trust (source: World Value Survey)<sup>3</sup>. A high value reflects a rule-based country, while a low value reflects a relation-based country. The detailed values of the GEI index are displayed in column (3) of table 2. Quantitatively as measured by Li and Filer (2007), the governance environment across countries is a continuum between two poles, pure relation-based on one end and pure rule-based on the other. It has been argued that historically, virtually all rule-based societies, such as the U.S. and Western European countries, evolved from relation-based into rule-based governance as the scale and scope of their economies expanded (Guthrie, 1998; *Economist*, 2001; Li, et al., 2004). Following hypothesis 1, we expect a negative relationship between this explicative and the dependent variable.

Our second explanatory variable is *International Depth Intensity*, which we computed as the ratio between the number of subsidiaries in each host country for each Chinese MNE and the number of countries in which the firm had at least one subsidiary in the year 2013 (source: Orbis). This variable allows to account for the intensity of the international depth strategy, thus attributing a higher value to a company having only two investments in one host country than to a company having two investments in the same host country and other two investments in another host country. Indeed, the former will be able to focus more intensively on the institutional context of that host

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<sup>3</sup> The components have been added after being standardized with a mean of zero and a standard deviation of one. See Li and Filer (2007) for more details.

country, while the second one will have to split its efforts across two different host countries. The average international depth is equal to 1.41, meaning that the number of subsidiaries established by Chinese EMNEs in each subunit is less than 2, while the mean of breadth is 8.17, meaning that Chinese EMNEs tend, on average, to diversify their investments across 8 different countries. The average value of our compound index, i.e. the international depth intensity, is 0.41, thus confirming the preference for the breadth over the depth strategy by Chinese EMNEs. Following hypothesis 2, we expect this variable to positively moderate the negative relationship between *Rule-Based Host-Country Governance* and *Share of Greenfield Subsidiaries*.

### *Control Variables*

We control for a variety of variables mentioned in past studies. The learning theories suggest that organizational size and its associated complexity affect an organization's ability to learn from international expansion (Barkema & Vermeuen, 1998). Large size of a firm may limit its learning and absorptive capacity due to the congestion in the flow of information between individuals in the firm (Cohen and Levinthal, 1990). A great number of organizational divisions, for example through multinationality of heterogeneous subsidiaries, can increase the coordination costs (Argyres, 1996). Size increases the post purchase integration costs lowering the likelihood of M&A (Meyer and Estrin, 2001). These suggest that for large firms, building their operations from scratch in a new foreign market is more efficient than acquiring existing ones, *ceteris paribus*. In addition, large size implies greater capabilities of dealing with the external environment of a new foreign market and less need of a local partner's help. Therefore, we expect that large firms in our data set to be more capable of dealing with the external governance environment, which in turn give them greater confidence in going solo in a foreign market. *EMNE's Size* is measured as the average number of employees of each Chinese EMNEs in the period 2004-2013<sup>4</sup>.

Another interesting organizational feature of the Chinese firms is whether they are owned by the Chinese government, or state-owned enterprises (SOEs). This variable may have an idiosyncratic impact on firm's internationalization (Cuervo-Cazurra, et al., 2014). As we discussed earlier, in a highly relation-based economy, the state controls vast economic resources and may insert more influence over the rest of the society including firms. SOEs in such a society have the best relationship with the state and enjoy many privileges. The main objective of SOEs is not

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<sup>4</sup> We employed this time span as the main databases from which we sourced the information about employment (e.g. Orbis) were able to provide these data only for the previous 10 years with respect to our base year, i.e. 2013. However, we believe that this time span is large enough to capture the average size of the Chinese EMNEs in the period of their more aggressive expansion, i.e. from 2005 onwards.

making money, but to be the financial and even personal tool of the government officials who directly oversee it. As long as the management of the SOE remains a cordial relationship with its supervisors in the government (which is a prerequisite for them to be appointed in the first place), they have great latitude to do what they want, including taking big risks, often unjustified and uncalculated. If they win, the management and their state supervisors take credit and benefit, and if they lose, the taxpayers shoulder the tab. As we mentioned earlier, acquiring existing firms is riskier in foreign markets with unfamiliar governance environments, but for SOEs, the promise of quick results from acquisitions (as opposed to greenfield) and thus potential rewards outweigh the risk (since the taxpayers shoulder the loss). *EMNE's State Ownership* is a dummy variable indicating if an EMNE has the Chinese government as a shareholder in the year 2013 (source: Orbis).

Following Buckley et al. (2007), we also introduce some country-level variables to account for the location advantages of the host country that might drive the investment of the Chinese EMNEs, which can be of market-seeking, asset-seeking, efficiency-seeking and natural resource-seeking type (Dunning, 1993). We capture the locations offering market-seeking advantages through the variable *Market-Seeking Location Driver*, which is measured through the average GDP of the host country in the period 2004-2013<sup>5</sup> (source: World Bank Database). We also employ the variable *Assets-Seeking Location Driver* to assess the extent to which a location offers asset-seeking opportunities, by employing the average per-capita number of patents applications by residents in the period 2004-2013 (source: World Bank Database). We capture the locations offering efficiency advantages through the variable *Efficiency-Seeking Location Driver*<sup>6</sup>, which is measured through the proxy output per worker (GDP constant 2011 in PPP) provided by ILO database, considering the average value between 2004 and 2013. Finally, the variable *Natural Resources-Seeking Location Advantage* is employed to account for the natural resources intensive locations and is measured through the average value of the ratio of ore and metal exports to merchandise exports of the host countries in the time span 2004-2013 (source: World Bank Database). We expect locations offering market-seeking and asset-seeking opportunities to host more M&As, since the latter offer the opportunity to take immediately advantage of the customers, market shares and complementary tangible and intangible resources of the target firms. Conversely, greenfield investments are expected to prevail in natural resources abundant locations, as governments often gain more from

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<sup>5</sup> We used for this and for the other country-specific proxies the same time span of the EMNEs size in order to align all the explicative variables.

<sup>6</sup> To decrease the multicollinearity between the GEI index and the proxies accounting for the market-seeking and efficiency-seeking drivers, these latter two variables have been transformed into logarithms.

the royalties paid by multinational companies that are willing to exploit their natural resources rather than from the direct exploitation of such resources, meaning that the MNEs require to establish their own plant and to use their own technology. On the other hand, resources are sometimes in mature industries requiring consolidation and, thus, favoring mergers and acquisitions. Finally, the relationship between efficiency seeking locations and the dependent variable is more difficult to predict *a priori*, as the high productivity of the host location can be exploited by the Chinese EMNEs both through a greenfield investment and by taking over a local company, although the former requires more time to be set up (and, hence, to release the associated efficiency-seeking advantages) than the latter.

We also control for the variables that the Transaction Cost Economics literature has shown to influence the mode choice (e.g. De Beule, Elia and Piscitello, 2014), i.e. the asset specificity, the internal uncertainty and external uncertainty. The first dimension has been accounted through the variable *EMNEs technology intensity*, which is the average stock of patents per employees of the Chinese EMNEs in the period 2004-2013 (Orbis database). The second dimension is captured through the variable *Cultural Distance*, which is measured by applying the Kogut and Singh (1998) index to the Hofstede (2001) items<sup>7</sup>; finally, the third dimension has been captured through the variable *Host Country Political Stability*, which is the average value of the index of “Political stability no violence” in the period 2004-2013 computed by the World Bank.

Given that the time might also play an important role in learning, we account for the length of EMNEs’ host-country experience through the variable *EMNE’s Host Country Experience*, which, for each observation, is computed as the difference between the year 2013 and the year of the first investment in the host country.

Finally, we control for the sectors of Chinese EMNEs through the variable *High-Tech Industry*, a dummy taking value of 1 if the Chinese EMNE operate in an industry classified as High-Tech or Medium High-Tech industries by Eurostat-OECD (2007)<sup>8</sup>. In addition, we introduced two geographic dummies, i.e. *North America* and *Europe*, to account for the fixed-effects associated these two macro-regions, which host the majority of Chinese investments (as shown also by figure 1 and table 2).

Table 3 summarizes all the variables, the proxies and the data sources employed in our analysis.

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<sup>7</sup> The items considered are power distance, uncertainty avoidance, masculinity/femininity, and individualism.

<sup>8</sup> The industries classified as high-tech and medium high-tech by Eurostat-OECD (2007) are: Aerospace, Computers, Office Machinery, Electronics-communications, Pharmaceuticals, Scientific instruments, Motor vehicles, Electrical machinery, Chemicals, Other transport equipment, Non-electrical machinery.

- Insert Table 3 about here -

### 3.3 Model and Methodology

The final equation model that we employ to test our first hypothesis is the following:

$$\begin{aligned} \text{Share of Greenfield Subsidiaries}_i &= \alpha_i + \beta_1 \text{Rule-} \\ &\text{Based Host Governnance Environment}_i + \beta_2 \text{International Depth Intensity}_i + \\ &\beta_3 \text{Controls}_i + \varepsilon_i \end{aligned}$$

where  $i$  denotes subunit. To test our second hypothesis, we interacted the variables *Rule-Based Host Governnance Environment* and *International Depth Intensity*. Given that the dependent variable is a percentage value ranging from 0 to 100, following Papke and Wooldridge (1996), Baum (2008) and Ramalho, Ramalho and Murteira (2011), we apply the Fractional Logit estimation model. Since this model requires the dependent variable to range between 0 and 1, we divided the variable *Share of Greenfield Subsidiaries* by 100, thus obtaining observations equal to 0 and 1, which reflect the host countries hosting only acquisitions and greenfield, respectively, and observations with intermediate values, which reflect those host-countries with a mixed portfolio of subsidiaries. Additionally, we standardized the explicative variables in order to uniform their different scales and to obtain a clearer representation of the coefficients.

Table 4 reports the correlation matrix and descriptive statistics of the dependent, explicative and control variables. Since some variables displays high correlations, we computed the Variance Inflation Factors (VIF) in order to detect some potential multicollinearity problems. Given that all VIF are below the conventional threshold of 10, being the highest value equal to 6.99, we can rule out the presence of multicollinearity problems in our analysis<sup>9</sup>.

- Insert Table 4 about here -

## 4. RESULTS

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<sup>9</sup> In addition to the VIFs, it is worth noting that a very recent publication by Lindner, Puck and Verbeke (2020) suggests that “(i) multicollinearity does not introduce bias, meaning that it is not an econometric problem in the sense that it would violate assumptions necessary for regression models to work; (ii) coefficient instability is not a consequence of multicollinearity; (iii) in the presence of a higher partial correlation between the variables, it can paradoxically become more problematic to omit one of these variables; (iv) ignoring clusters in data can lead to spurious results” (Lindner, Puck and Verbeke, 2020 p.283). Given these insights (and given that our standard errors have been clustered by host countries), we are confident that the correlations do not represent a relevant problem for our study. To avoid any further doubt, we also performed a regression after removing the country-specific variables whose correlations are above 0.50 (i.e. Market-Seeking Location Driver, Efficiency-Seeking Location Driver, Cultural Distance and Host-Country Political Stability) and we got results (available upon request) that confirm the findings described in section 4.

Table 5 reports the results of the Fractional Logit estimation model applied to the baseline model (1) and to the model with the interaction (2). Following Hahn and Ang (2017), according to whom “reporting only whether a threshold has been reached (often designated with an asterisk such as \* for  $p < 0.05$ ) results in a loss of information”, we provide the exact p-value together with the coefficients in column 1. Additionally, since the same authors suggest “to move towards a more pluralistic perspective on empirically-based research as opposed to the current p-value monoculture”, e.g. by showing also the importance of the results in terms of impact, we provide information on the size effect of each variable by reporting the marginal effects in column 2.

Our results show that the variable *Rule-based host country governance* is negatively correlated with the dependent variable with a coefficient of -0.218 and a statistical significance level of  $p\text{-value}=0.005$ , thus showing that in rule-based countries Chinese EMNEs tend to invest through M&As rather than through greenfield investments, thus supporting hypothesis 1. More specifically, marginal effects show that switching from a relation-based to a rule-based country is associated to a decrease of 3.6% of the share of greenfield subsidiaries in a given subunit (at  $p\text{-value}=0.002$ ).

Conversely, *International Depth Intensity*, which is our second explicative variable, exhibits a positive and significant effect, with a coefficient of 0.923 and a p-value of 0.038. Therefore, firms accumulating an intensive local experience are more confident to adopt greenfield as their establishment mode when entering a country. This is also supported by the marginal effect, which show that an increase of 100% of the depth variable will result in an increase of 15.1% in the probability of selecting the greenfield establishment mode ( $p\text{-value}=0.037$ ), thus showing a stronger effect than the institutional context.

With regards to the control variables, the coefficient estimate for *EMNEs Size* is 6.998, and the p-value is 0.026, thus fully supporting our conjecture. More notable is the marginal effect in column 2: it exhibits a positive and significant marginal effect for size with a value of 1.141 and a p-value of 0.009. Large firms are more likely to have a higher share of greenfield over total subsidiaries, as found by previous literature (Meyer and Estrin, 2001).

The variable *EMNEs State Ownership* shows a negative relationship with greenfield investment with a high significant level (coefficient=-0.554 and  $p\text{-value}=0.012$ ). Its marginal effect is 0.090 with a  $p\text{-value}=0.013$ , thus confirming our expectation on the penchant for buying existing firms abroad by state-owned enterprises. Hence, we complement the previous literature that highlighted state ownership’s role in Chinese EMNEs’ internationalization (e.g. Cuervo-Cazurra, et al., 2014) by showing that it also plays a role in the establishment mode choice: favouring M&As over greenfield investments.

As for the location advantages of the host country, we find a positive and significant effect for *Asset-seeking Location Driver* (coefficient=0.343 with p-value=0.004 and marginal effect=0.056 with p-value=0.005) and for *Natural Resources-Seeking Location Driver* (coefficient=0.259 with p-value=0.019 and marginal effect=0.042 with p-value=0.022), while *Market-Seeking Location Driver* exhibits a negative and significant effect (coefficient=-0.315 with p-value=0.032 and marginal effect=-0.051 with p-value=0.030), confirming that M&As are the quickest establishment mode to gain market shares while greenfield investments are preferred to better internalize different types of resources. Also, in this case we complement previous literature on emerging market firms (e.g. Buckley et al., 2007) by showing the role of locations drivers not only on the internationalization and location choice of Chinese EMNEs, but also on their establishment mode.

In addition, greenfield investments seem to be used by Chinese EMNEs to face uncertainty, given that they are preferred in countries where they face higher cultural distance (*Cultural Distance*'s coefficient=0.352 with p-value=0.036 and marginal effect=0.057 with p-value=0.019), lower political stability (*Host Country Political Stability*'s coefficient=-0.467 with p-value=0.019 and marginal effect=0.076 with p-value=0.013) and less long-term experience (*Host Country Experience*'s coefficient=-0.041 with p-value=0.000 and marginal effect=0.007 with p-value=0.000). These results add on the previous Transaction Cost Literature, which has shown that high uncertainty will lead to transactional market failure, thus increasing the likelihood of modes with high commitment investment (e.g. John and Weitz, 1988; Walker and Weber, 1987): we provide evidence that, after selecting the high commitment entry mode, greenfield is preferred over acquisitions as establishment mode to manage uncertainty.

Interestingly, the variable *High-tech Industry* does not show a positive relationship with acquisition, which seems to be touted by frequent news reports that many countries are resistant to China's acquiring their technology through acquisition. A case in point is *Huawei*'s failed acquisition of *3Leaf*, an American technology company. The geographic dummies do not display any significant effect either.

The last two columns of Table 5 display the results of the interaction between *Rule-based host country governance* and *International Depth Intensity*. Results show a coefficient that is both positive (=0.461) and significant (p=0.069) and a marginal effect (=0.071) that is even more significant (p=0.026). However, given the non-linearity of the model, it is difficult to draw any conclusion from the coefficient and from the marginal effect of the interaction term (see, for more details, Zelner, 2009). Hence, we plotted the result in Figure 2, from which we can see that the relationship between *Rule-based host country governance* and *Share of Greenfield Investments*



changes slope based on the intensity of the international depth variable. Specifically, it is negative for low (i.e. mean minus standard deviation) and medium values (i.e. mean) of *International Depth Intensity*, while having a positive slope for high values (i.e. mean plus standard deviation) of *International Depth Intensity*, thus supporting hypothesis 2<sup>10</sup>.

- Insert Table 5 and Figure 2 about here -

## 5. DISCUSSION AND CONCLUDING REMARKS

In this paper we study the drivers underlying the establishment mode choice of Chinese EMNEs. In our sample, the hypotheses we proposed were all significant in the predicted direction. We show that, first, firms choose the establishment mode based on the governance environment of the host country, through a preference for acquisition in rule-based and for greenfield in relation-based countries; and second, that their in-country experience will help them to overcome the effect of governance environment, making them more confident to undertake greenfield investments in rule-based countries and M&As in relation-based countries.

### *Theoretical Contributions*

This article has started to articulate an extension of the theory of establishment mode by combining the institutional theory at the country level and the learning theory at the firm level to understand the establishment behavior of Chinese firms investing abroad, using governance environment -- rule-based vs. relation-based countries -- as its setting and explaining a wider variation of firm choice based on their international depth strategy. In this regard, we can say that not only does our approach inject fresh air to the study of establishment mode of greenfield versus M&A, but, more significantly, we provide the first empirical evidence to support and expand North's seminal work predicting that institutions matter less when the obstacles imposed by them disappear. We achieved this by showing that more experience and knowledge accumulated by a firm about the host country may in fact make institutions of the host country matter less for the firm in mode choice.

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<sup>10</sup> If we introduce the confidence intervals (which have been omitted for the sake of clarity), it arises that the values of the prediction of the share of greenfield over total investments in case of high and low depth intensity lie on two different confidence bars both when countries are fully relation-based (i.e. on the left side of the graph) and when they are fully rule-based (i.e. on the right side of the graph). This evidence provides a further support to the interaction effect of international depth intensity.

Chinese investment abroad, rapidly increasing in scale and scope, has been characterized as opaque and mysterious, and opposite of the established practice of mature economies or what has been called “the West” (a mislabeling we will discuss below). We demystify it by using the governance environment theory and argue that greenfield and M&A investments, as two alternative investment modalities, are affected by the governance mechanisms for investor protection at the macro level, and by the intensity of local learning at firm level. We further argue that country-specific experience may alleviate the effect of governance environment. Our theorizing and results contribute to establishment mode theories, providing practical insights and policy implications discussed in order below.

In our study, we attempted to show that what appears to be “Chinese” in the Chinese firms’ behavior in foreign investment is actually shaped by the host country governance environment and by firm past experience. In other words, it is the stage of political and socioeconomic development in the host country and the international experience of the firm that facilitate or restrain the governance choice and learning behavior of the firms. In this regard, there is no “East” (or “China”) versus “West”; it should be relation-based versus rule-based environment and heterogeneous vs. homogenous international experience. What is commonly termed the “West” is societies that have more fully adopted rule-based governance. Theoretically, we can apply our governance environment framework to analyze the establishment mode of firms from other cultures and countries.

### *Practical Insights*

An insight of our study to managers is that the governance environment is crucial when choosing foreign countries to investment, and the choice of establishment mode should be contingent on the degree to which a country is rule- or relation-based. Further, international experience, especially the in-country accumulated experience, will enable managers to gain greater degrees of freedom in their establishment mode choice.

### *Future Studies*

A main limitation of our study is that we employed a portfolio-level analysis and that all observations (firms) are from one country, which prevented us from comparisons of learning behaviors between different types of emerging countries or between emerging and advanced countries, or even between relation-based and rule-based home countries. Future studies in this stream should develop an establishment-mode level or firm-level database involving multiple home countries, so that we can assess the effects of firm orientation—rule-based versus relation-based—

on establishment across countries of different governance environments and on learning behavior arising from sequential market entries. An additional limitation resides in the measure of international experience, which takes into account only the depth intensity. Future studies should try to explore other dimensions such as the degree of heterogeneity of the different countries in which Chinese firms invest. It would be interesting to investigate also other firm- or industry-specific contingencies affecting the relationship between governance environment and establishment mode choice, as well as the role of distances between the home and host countries. Despite these limitations, we believe that the article provides a better understanding of the dynamics underlying the establishment mode choice of (Chinese) EMNEs, and we hope that future researchers continue to examine both the governance environment impacts and its moderators for emerging markets multinationals.

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## TABLES

Table 1: Rule vs. Relation Based Environments

<b>Relation-based Governance</b>	<b>Rule-based Governance</b>
Laws tend to be opaque and unfair, enforcement particularistic	Laws tend to be transparent, fair, and enforcement universal
Relying on private and local information	Relying on public information
Implicit and non-verifiable agreements	Explicit and third-party verifiable agreements
Person-specific and non-transferable contracts	Public and transferable contracts
High entry and exit barriers	Low entry and exit barriers
Requiring minimum social order	Requiring well-developed legal infrastructure
Low fixed costs to set up the system	High fixed costs to set up the system
High and increasing marginal costs to maintain	Low and decreasing marginal costs to maintain
Rely on particularized trust	Rely on generalized trust

Table 2: distribution of observations across the host-countries and GEI index of the host-countries

Country	(1) Frequency	(2) Percentage	(3) GEI Index*
Argentina	1	0.35	-2.75
Australia	12	4.23	3.73
Brazil	8	2.82	-2.06
Bulgaria	1	0.35	-1.75
Chile	2	0.70	.12
Colombia	1	0.35	-3.69
Cyprus	1	0.35	2.28
Germany	40	14.08	4.53
India	15	5.28	-.85
Indonesia	8	2.82	-1.1
Japan	22	7.75	1.79
Malaysia	11	3.87	-2.91
Mexico	7	2.46	-3.71
Morocco	2	0.70	-3.7
New Zealand	1	0.35	5.7
Poland	3	1.06	4.04
Romania	2	0.70	1.32
Russian Federation	9	3.17	-.63
South Africa	7	2.46	-4.34
Sweden	3	1.06	3.11
Switzerland	6	2.11	6.18
Thailand	7	2.46	4.34
The Netherlands	23	8.10	-.84
Turkey	3	1.06	-2.75
UK	27	9.51	4.35
USA	62	21.83	2.3
<b>Total</b>	<b>284</b>	<b>100</b>	

\* Higher values are associated to rule-based countries, lower values are associated to relation-based countries (see Li and Filer, 2007 for more details)

Table 3: summary of the variables employed in the empirical analysis

<b>Variable Name</b>	<b>Proxy</b>	<b>Data source</b>
<u>Dependent variable</u>		
<i>Share of Greenfield Subsidiaries</i>	% of subsidiaries established up to the year 2013 through greenfield investments for each subunit	fDi Markets, Zephyr and SDC Platinum
<u>Explicative variables</u>		
<i>Rule-Based Host Country Governance</i>	Governance Environment Index: addition of 5 components after standardization with a mean of zero and a standard deviation of one.	Li and Filer (2007)
<i>International Depth Intensity</i>	International depth (Total number of subsidiaries in each host country for each Chinese MNE in the year 2013) / International breadth (Total number of countries in which each Chinese MNE have at least one subsidiary in the year 2013)	Orbis
<u>Control variables</u>		
<i>EMNE's Size</i>	Average number of employees of each Chinese EMNEs in the period 2004-2013	Orbis
<i>EMNE's State Ownership</i>	Dummy variable indicating if an EMNE has the Chinese government as a shareholder in the year 2013	Orbis
<i>Market-Seeking Location Driver</i>	Average GDP growth of the host country in the period 2004-2013	World Bank Database
<i>Asset-Seeking Location Driver</i>	Average per-capita number of patents applications by residents in the period 2004-2013	World Bank Database
<i>Efficiency-Seeking Location Driver</i>	Average output per worker (GDP constant 2011 in PPP) in the period 2004-2013	ILO database
<i>Natural Resources-Seeking Location Driver</i>	Average ratio of ore and metal exports to merchandise exports of the host countries in the time span 2004-2013	World Bank Database
<i>EMNE's Technology Intensity</i>	Average stock of patents per employees of the Chinese EMNEs in the period 2004-2013	Orbis
<i>Cultural Distance</i>	Kogut and Singh (1998) index applied to Hofstede (2001) items	Hofstede (2001)
<i>Host Country Political Stability</i>	Average value of the index of "Political stability no violence" in the period 2004-2013	World Bank
<i>EMNE's Host Country Experience</i>	Difference between the year 2013 and the year of the first investment in the host country.	Orbis
<i>High-Tech Industry</i>	Dummy taking value of 1 if the Chinese EMNE operate in an industry classified as High-Tech or Medium High-Tech	Eurostat-OECD (2007)
<i>North America and Europe</i>	Dummies taking value of 1 if the host country is North America or Europe, respectively	Orbis

Table 4: Correlation matrix and descriptive statistics of the dependent and explicative variables

	<b>Variables</b>	<b>1)</b>	<b>2)</b>	<b>3)</b>	<b>4)</b>	<b>5)</b>	<b>6)</b>	<b>7)</b>	<b>8)</b>	<b>9)</b>	<b>10)</b>	<b>11)</b>	<b>12)</b>	<b>13)</b>	<b>14)</b>	<b>15)</b>	<b>16)</b>
1)	<i>Share of Greenfield Subsidiaries</i>	1.0000															
2)	<i>Rule-Based Host Country Governance</i>	-0.1481*	1.0000														
3)	<i>International Depth Intensity</i>	0.1383*	0.2258*	1.0000													
4)	<i>EMNEs Size</i>	0.1038	-0.0378	0.0930	1.0000												
5)	<i>EMNEs State Ownership</i>	-0.1235*	-0.1020	-0.1794*	0.0057	1.0000											
6)	<i>Market-Seeking Loc. Driver</i>	-0.0305	0.2969*	0.2416*	0.0626	-0.0396	1.0000										
7)	<i>Assets-Seeking Loc. Driver</i>	-0.0176	0.1634*	0.1327*	0.1209*	0.0412	0.5637*	1.0000									
8)	<i>Efficiency-Seeking Loc. Driver</i>	-0.1074	0.7119*	0.2556*	0.0196	-0.0276	0.6041*	0.4483*	1.0000								
9)	<i>Natural Resources-Seeking Loc. Driver</i>	0.0746	-0.0421	-0.1151	-0.0482	-0.0018	-0.3177*	-0.2572*	-0.1435*	1.0000							
10)	<i>EMNEs Technology Intensity</i>	-0.0923	0.0371	0.0012	-0.0158	-0.0539	-0.0051	-0.0329	0.0314	-0.0212	1.0000						
11)	<i>Cultural Distance</i>	-0.1348*	0.7157*	0.1829*	-0.0074	-0.0376	0.3739*	0.2762*	0.8162*	-0.0866	0.0322	1.0000					
12)	<i>Host Country Political Stability</i>	-0.1556*	0.7427*	0.1052	-0.0061	0.0307	0.1552*	0.3387*	0.5550*	-0.0920	-0.0322	0.7251*	1.0000				
13)	<i>Host Country First Investment Age</i>	-0.2317*	-0.1954*	-0.0934	0.0447	0.1341*	-0.0093	0.0898	-0.0391	0.0512	0.0191	-0.0245	-0.0754	1.0000			
14)	<i>High-Tech Industry</i>	-0.0973	-0.0244	-0.0382	-0.0902	0.2168*	-0.0674	-0.0460	-0.0438	0.0171	-0.0119	0.0341	0.0305	-0.0057	1.0000		
15)	<i>North America</i>	0.0118	-0.0741	0.1025	0.0311	0.0407	0.6737*	0.1613*	0.3310*	-0.1789*	-0.0394	0.1733*	-0.0910	0.1406*	-0.0348	1.0000	
16)	<i>Europe</i>	-0.0955	0.4856*	0.0806	-0.0492	-0.0739	-0.1803*	-0.2404*	0.2593*	-0.2527*	0.0822	0.3946*	0.3222*	-0.2435*	0.0575	-0.4822*	1.0000
	Observations	284	284	284	284	284	284	284	284	284	284	284	284	284	233	284	284
	Mean	0.5250	1.9976	0.4131	-0.0898	0.4930	28.3737	0.0150	10.6021	-0.0036	0.0557	2.5893	1.4143	102.8803	0.2993	0.2465	0.4155
	Std. Dev.	0.4848	2.8674	0.4667	0.8933	0.5008	1.3789	1.0130	1.1391	0.9881	1.4169	1.1085	0.9515	25.4553	0.4588	0.4317	0.4937
	Min	0.0000	-4.3400	0.0357	-0.3201	0.0000	24.1739	-0.7761	7.8063	-0.5773	-0.0919	0.4451	0.0009	0.0000	0.0000	0.0000	0.0000
	Max	1.0000	6.1800	4.0000	8.9807	1.0000	30.3122	3.1255	11.4390	6.7020	23.6214	4.9472	3.8646	114.0000	1.0000	1.0000	1.0000

\* Significant at 5%

Table 5: Results of the Fractional Logit estimation model (dependent variable: *Share of Greenfield Subsidiaries*)

Variables	(1) Baseline Model		(2) Interaction Model	
	Coefficients	Marginal Effects	Coefficients	Marginal Effects
<i>Rule-Based Host Country Governance</i>	-0.218 (0.005)	-0.036 (0.002)	-0.310 (0.009)	-0.047 (0.001)
<i>International Depth Intensity</i>	0.923 (0.038)	0.151 (0.037)	-0.482 (0.579)	-0.074 (0.557)
<i>EMNE's Size</i>	6.998 (0.026)	1.141 (0.009)	7.926 (0.029)	1.212 (0.005)
<i>EMNE's State Ownership</i>	-0.554 (0.012)	-0.090 (0.013)	-0.690 (0.030)	-0.106 (0.010)
<i>Market-Seeking Loc. Driver</i>	-0.315 (0.032)	-0.051 (0.030)	-0.416 (0.016)	-0.064 (0.006)
<i>Assets-Seeking Loc. Driver</i>	0.343 (0.004)	0.056 (0.005)	0.466 (0.001)	0.071 (0.000)
<i>Efficiency-Seeking Loc. Driver</i>	-0.002 (0.992)	-0.000 (0.992)	-0.005 (0.977)	-0.001 (0.977)
<i>Natural Resources-Seeking Loc. Driver</i>	0.259 (0.019)	0.042 (0.022)	0.289 (0.028)	0.044 (0.022)
<i>EMNE's Technology Intensity</i>	-6.572 (0.000)	-1.072 (0.000)	-8.821 (0.001)	-1.349 (0.000)
<i>Cultural Distance</i>	0.352 (0.036)	0.057 (0.019)	0.327 (0.069)	0.050 (0.049)
<i>Host Country Political Stability</i>	-0.467 (0.019)	-0.076 (0.013)	-0.619 (0.003)	-0.095 (0.000)
<i>EMNE's Host Country Experience</i>	-0.041 (0.000)	-0.007 (0.000)	-0.047 (0.001)	-0.007 (0.000)
<i>High-Tech Industry</i>	-0.060 (0.867)	-0.010 (0.866)	-0.038 (0.910)	-0.006 (0.909)
<i>North America</i>	0.412 (0.300)	0.067 (0.311)	0.662 (0.114)	0.101 (0.098)
<i>Europe</i>	-0.260 (0.535)	-0.042 (0.525)	-0.481 (0.251)	-0.074 (0.216)
<i>Rule-Based Host Country Governance*</i>			0.461	0.071
<i>International Depth Intensity</i>			(0.069)	(0.026)
<i>Constant</i>	14.821 (0.001)		19.053 (0.004)	
Number of observations	284		284	
Chi-Square	194.763		286.056	
P-value	0.000		0.000	

Please note: P-values between brackets

## FIGURES

Figure 1: Distribution of the 401 Chinese subsidiaries across the host countries by establishment mode (i.e. greenfield vs. M&As).

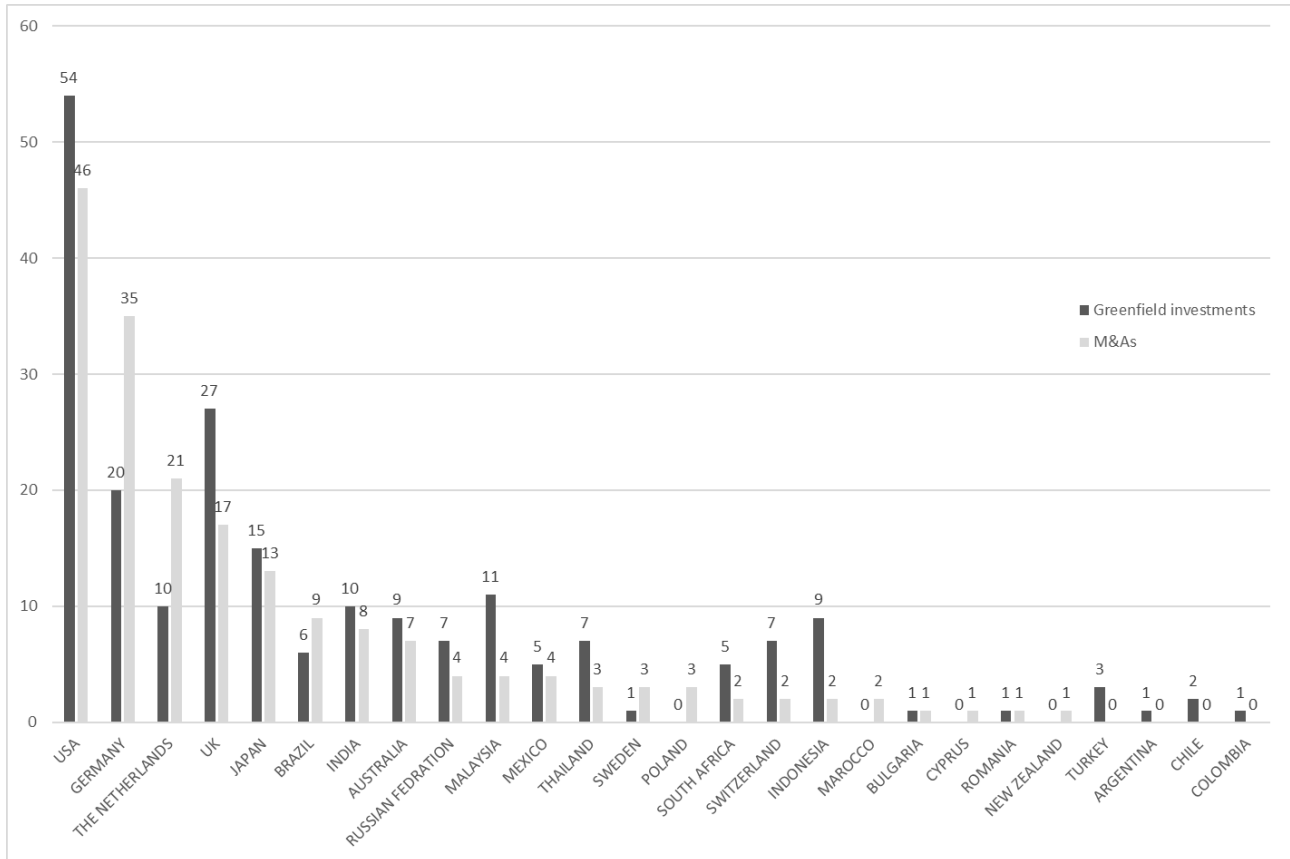




Figure 2, Interaction Effect of *International Depth Intensity* and *Rule-Based Host-Country Governance* on the establishment mode.

