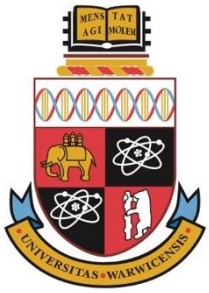

The Motives and Implications of Chinese Outward Foreign Direct Investment

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Chapter One: Introduction

The last decade's economic development has rapidly transformed China from a main FDI recipient into the fastest-growing investing country. The corresponding increase in China's international influence and a series of high-profile FDI projects have attracted academic scholars to research the connection between Chinese firms' fast expansion and the strategic intent of becoming competitive participators on the global stage. However, due to the issues of data constraints and the weakened applicability of conventional international business theories in the context of EMNEs, there are only a limited number of empirical studies conducted to explore the contemporary Chinese MNEs' activities in developed economies, and fewer attempts have been made to research the effect of international expansion on their performance and competitiveness. This results in a systematic lack of understanding of Chinese OFDI—to what extent are Chinese firms' foreign investments linked to strategic resource seeking, how can geographic diversification benefit FDI late entrants, can internationalisation effectively improve performance? Or is the expansion used more as a long-term strategic tool to establish a competitive position in the future? To provide a comprehensive analysis of the cause and effect of Chinese OFDI, we focus the three empirical studies on the drivers (locational determinants), influences (multinationality-performance relationship), and outcomes (the influence of internationalisation on the development of strategic resources) of Chinese firms' internationalisation.

One stream of international business research on Chinese MNEs' location choice asserts

that Chinese FDI is primarily drawn to regions with higher levels of political risk and lower institutional stability, because firms with experience of incomplete capital markets can leverage their special capability of coping with strong institutional voids and market failures (Kolstad and Wiig, 2012; Buckley et al., 2007). However, the risk-loving proposition has been increasingly challenged by the growth of EMNEs' large-scale investments in developed economies. Despite the profound economic cooperation with neighboring economies (i.e. newly developed Japan and South Korea, and potential manufacturing substitutes like Burma and Viet Nam), China in recent years has started "at a greater pace to acquire well-known firms worldwide as a new form of transnational investment" (Rui and Yip, 2008, p.213).

Following the lead of Child and Rodrigues (2005), an increasing number of scholars have shifted their research focus to investigate the applicability of the asset-exploration perspective in the context of China (Rui and Yip, 2008; Luo and Tund, 2007; Luo, Xue, and Han, 2010; Deng, 2007, 2009; Anderson and Sutherland, 2015; Ramasamy, Yeung, and Laforet, 2012). In contrast to the conventional asset-exploitation theory, the exploration-oriented perspective attributes EMNEs' increasing use of FDI to the requirements of strategic assets, which generally serve as the cornerstone of the firm's survivability and competitiveness (Luo and Tung, 2007; Deng, 2009).

China's accession to the World Trade Organisation (WTO) has brought tremendous opportunities for Chinese firms to exploit their advantage in scale production, and many Chinese manufacturers have created enormous economic value in the last decade. However, globalization also exposes the deficiency of Chinese firms in technological and managerial capabilities compared to their foreign rivals (Chen and Li, 2006; Cheng and Liu, 2006; Buckley,

Cross, Tan, Xin and Voss, 2008). As an economy that specializes in technology standardization, China's competitiveness is largely built on factors that are typically termed "country-specific advantages", such as strong governmental ties and preferential access to resources. Process innovation is strategically important for Chinese MNEs so as to secure their long-term competitive position against other emerging economy cost-effective firms and developed economy technology-leading firms (Bhaumik, Driffield, and Zhou, 2016).

Rui and Yip (2008) believe the current trend of investing in developed markets is driven by a combination of improved entrepreneurship and supportive institutional forces (as well as by the threat of increasing global competition) in China. Thus domestic firms are increasingly adopting a proactive internationalization strategy to achieve their strategic objectives: strengthening government-firm relationships, compensating the technology gap, exploiting unique ownership advantages, and so on. With years of rapid development and capital accumulation behind them, both Chinese firms and the central government now have sufficient cash reserves to use internationalization as a means of transferring technology, achieving fast improvement in technological capabilities, and sustaining rapid development (Liao and Sohmen, 2001; Sauvant, 2005; Chen and Li, 2006).

On the other hand, the implementation of the "Go Out" policy and the development of global economic integration have also encouraged Chinese firms to engage in cross-border expansion. From the early 2000s, China's government has been committed to create a pro-business environment by simplifying license approval, reducing tax and administration fees, and providing a variety of financial support such as subsidies, soft-budget loans and diplomatic assistance (Luo, Xue and Han, 2010; Cheng and Liu, 2006). These beneficial policies and

treatments have helped an increasing number of visionary Chinese manufacturers, including Lenovo, Huawei, Hair, ZTE, Wolong Holding Group, Fosun Group, Bright Food, etc., to establish competitive positions in the global market. During this period, China's outward FDI to developed strategic factor markets has grown dramatically. The annual FDI flow to the US increased from 0.07 billion USD in 2003 to 3.87 billion USD in 2013, and the investment directed to the EU in 2013 (4.52 billion USD) is 22 times greater than the figure reported in 2003 (0.2 billion USD) (MOFCOM, 2014). According to a global FDI observation report conducted by UNCTAD in 2013, China has overtaken the UK and Germany to become the third largest OFDI source in the world.

Although a substantial number of recent studies have proposed a possible link between developed economies' strategic assets and Chinese MNEs' location choice (Deng, 2009; Makino et al., 2002; Kedia et al., 2012; Rui and Yip, 2008; Luo and Tung, 2007), only a few systematic studies have provided supportive findings (Ramasamy, Yeung, and Laforet, 2012; Anderson and Sutherland, 2015). This results in an incomplete understanding of recent growth in Chinese OFDI to developed economies, such as the EU and North America. Are contemporary Chinese multinational enterprises still drawn to natural resources and market demand proposed in conventional international business theories? Or is there is an increasing tendency that firms from the emerging economy leader are now prone to invest in more developed markets, seeking better property rights protection and the opportunity to improve technological capabilities? Buckley et al (2007) think that policy-oriented Chinese MNEs are stuck at the initial stage of internationalization as the "Go Out" policy has not been fully implemented, thus Chinese firms' asset-seeking behaviours are not evident in early 2000s

studies. Ramasamy et al (2012) found that Chinese FDI is not attracted to core research centres, instead Chinese MNEs are more prone to invest in markets that can create commercial value from exporting high technology products. The findings of Anderson and Sutherland (2015) suggest that "EM MNEs do indeed have a stronger propensity to seek strategic assets via explorative acquisitions"(p. 102), however, there study is based on the data of Chinese MNEs in a single developed market, the US.

This empirical study aims to extend the present EMNE literature by examining the locational determinants of Chinese MNEs' Greenfield and acquisition investments in 28 European Union (EU) countries before and after the 2008 global financial crisis. Using a large firm-level panel dataset and a multilevel methodology enables us to test the applicability of conventional and emerging theoretical hypotheses in the context of EMNEs. This also makes several empirical contributions to our understanding of contemporary Chinese firms' internationalization activities. We sourced the dependent variable data, the number of wholly owned subsidiaries (WOS), from a rich firm-level database, ORBIS, which contains detailed information regarding the subsidiary's' shareholder background, incorporation year, revenue and employees. The performance and employee data provided by ORBIS helps eliminate the offshore financial centres and shell companies, and avoids the 'untraceable capital flow' problem that generally plagues Chinese MNE studies based on aggregate OFDI flow data (Cheng and Ma, 2008; Morck, Yeung, and Zhao, 2008). Thus, this allows us to explore EMNEs' locational determinants as the Chinese firms' geographic distribution reflecting individual firm's financial details as well as their investment preference and location choice.

Secondly, the multilevel methodology facilitates the exploration of how Chinese firms are

investing in a diversified economic entity. Currently the EU comprises 28 geographically proximate but economically, politically and culturally varied countries. Some of these countries share similar country-level characteristics, but the difference between regions in terms of economic development and the level of strategic assets is very obvious and the regional influences have often been underestimated in previous EMNE studies. Using the two-level model allows us to distinguish the influence of regional factors on Chinese MNEs' investments from national factors, which will provide a more comprehensive analysis and present new empirical evidence on the heterogeneity of Chinese firms' geographic distribution in developed economies.

Thirdly, we also examine the impact of the 2007-2008 subprime mortgage crisis on the development of Chinese outward FDI, to study whether fast-developing Chinese firms' strategic asset-seeking FDI has intensified while many technology-leading firms have been overwhelmed by the collapse in the global financial market. Some scholars believe that the 2008 financial crisis has facilitated EMNEs' asset seeking investments, because the structural breakdown hindered EU and US firms from accessing finance and led to a devaluation of the technological assets situated within those firms (Luo, Xue and Han, 2010; Yang and Stoltenberg, 2014; McAllister and Sauvant, 2013). However, the role of the financial crisis in determining Chinese MNEs' investment strategies has largely been underestimated in extant studies (see i.e. Wang, Krug, and Reinmoeller, 2012; Kolstad and Wiig, 2012; Ramasamy, Yeung, and Laforet, 2012). By exploring whether the 2008 financial collapse has had an impact on Chinese MNEs' spatial patterns, our study enriches the understanding of the impact of the global economic trend on emerging economy firms' internationalization.

Based on the empirical analysis of 4,500 Chinese MNEs across 114 regions in 27 EU nations during the period 2004-2013, the first study confirms the positive impact exerted by market size and strategic assets on Chinese foreign investment preference. Although the market- and asset-seeking FDI strategies of Chinese firms have been studied in more recent international business studies, extant literature is still insufficient to explain other important patterns of Chinese MNEs' international expansion. Since we know Chinese FDI is closely associated with market demand and strategic assets, firms with higher degrees of internationalization are more likely to achieve better performance in contrast to non-MNE counterparts as a result of improved market accessibility and strategic resource acquisitions, thus we conduct the second study to explore the relationship between multinationality and Chinese firms' profitability.

Conventional theories suggest that many developed economy firm's internationalization is triggered by the possession of proprietary resources in the form of superior technological capability, a well-established brand, or product innovation (Kindleberger, 1969). These unique and value-enhancing assets enable the owner to reap supernormal profits from an imperfect final product market (Kindleberger, 1969; Hymer, 1976; Caves, 1971). Building on asset exploitation propositions, a large body of literature has found that an enlarged business territory enables MNEs with competitive advantages to increase revenue and reduce costs by spreading overheads (Tallman and Li, 1996), accessing cheaper resources (Porter, 1990), and extending the product life cycle (Vernon, 1966). Therefore, the relationship between multinationality and MNE performance is generally depicted by either a positive linear relationship (Kim and Lyn, 1999; Morck and Yeung, 1991; Vernon, 1971; Grant, Jammine and Thomas, 1988) or in an

inverted U-shaped curve (Geringer, Beamish, and daCosta, 1989; Hitt, Hoskisson, and Kim, 1997; Ramaswamy, 1995; Gomes and Ramaswamy, 1999).

However, due to the fundamental differences between EMNEs and their developed economy counterparts in terms of the level of competitive advantages, FDI motivations, and the home institutional frameworks, the applicability of conventional explanations in FDI latecomer studies is often challenged by scholars (Wang, Hong, Kafouros, and Boateng, 2012; Buckley et al., 2007; Liu, Buck, and Shu, 2005; Anderson and Sutherland, 2015). Some scholars (Khanna, Palepu, and Sinha, 2005; Chari and Shaikh, 2017) believe that EMNEs have more difficulties to cope with the enlarged business territory because international expansion involves risks and uncertainties that may compromise the firm's managerial capability and expose their technology deficiency to a greater level. This can be seen in internationalization activities, such as acquiring external strategic resources from other corporations, penetrating culturally and institutionally distant markets for a local customer base, approaching developed strategic factor markets to learn new technologies, etc. (Ramaswamy, Yeung, and Laforet, 2012; Morck, Yeung, and Zhao, 2008; Deng, 2007).

Given that EMNEs are FDI latecomers that generally lack the experience and managerial capability to manage liability of foreignness and long-distance coordination, they are more likely to encounter a downturn in performance at the initial stage of internationalization (Contractor, Kumar, and Kundu, 2007). Therefore, a U-shape or sigmoid shape curve may better explicate EMNEs' MP relationship (i.e. Gomes and Ramaswamy, 1999; Ruigrok and Wagner, 2002; Contractor et al., 2007).

A recent development in related studies shows there is a possibility that a three-stage MP

relationship may exist among all MNEs. The three-stage theory proposes that the association between the degree of internationalization and performance indicators (such as return-on-assets and return-on-sales, market value, or operation efficiency) follows a horizontal sigmoid-shaped curve. This reflects the way in which multinationality has a detrimental effect on firms' performance in the initial and final stages of cross-border expansion. Firms should therefore seek to maintain their expansion activities at the threshold point where the ownership and locational advantages can be most effectively exploited (Lu and Beamish, 2004; Contract Kundu, and Hsu, 2003; Contractor, Kumar, and Kundu, 2007).

Hennart (2007) argues that in spite of a flourishing literature attempting to investigate different shapes of MP relationship, the results presented in extant studies are unconvincing and inconclusive because many scholars have not "delved on possible weaknesses in theoretical underpinnings", choosing instead to focus "on how to measure M and P and on the specific form of the relationship" (p.424). Lu and Beamish think that studies that have reported a monotonic positive MP relationship are not robust due to "incomplete theorization about the full range of benefits and costs" (p.59), and as a result, the detrimental effects of international diversification are largely underestimated. In a meta-analysis based on 54 top journal MP studies, Driffield and Yang (2010) find that firms' country of origin, the measure of multinationality, the analysis method used (regression vs. non-regression (i.e. ANOVA and t-test)) and size distribution of the sample, can tweak the investigation of the MP relationship and lead to biased results. Future MP scholars should take full account of research heterogeneity in order to produce robust empirical findings.

Based on the above discussion, the second empirical study seeks to address the gap in the

understanding of EMNEs' MP relationship by testing the applicability of the three-stage MP model, and the explanatory power of the resource-based view, organizational learning theory, and transaction cost perspective in the context of Chinese MNEs (Contactor et al., 2003; Lu and Beamish, 2004). Our study also provides practical guidance for Chinese MNEs about how to handle the multinationality impact at different stages of internationalization, because management with better knowledge of the MP relationship will be more aware of the position they are in and are able to interpret the challenges that will arise from continuing expansion (Contractor, Kumar, and Kundu, 2007). Therefore, such knowledge helps decision makers design an effective strategy to alleviate the detrimental effects of expansion, accelerate the realization of multinationality benefits, and extend the length of optimal internationalization.

The third study is conducted to explore another pattern of internationalization effects on EMNEs, aiming to unravel how international expansion can affect FDI latecomers' development of strategic resources. The overall negative association between Chinese firms' performance and international expansion found in the second study raises a question: If Chinese firms cannot improve their performance thorough geographic diversification, why are they still keen to expand in overseas markets? The escalating competition in the global market and the improved entrepreneurship in emerging economies have rendered the strategic asset as an indispensable source of Chinese firms' survivability and performance (Deng, 2007; Rui and Yip, 2008). A number of recent studies focusing on the well-established Chinese MNEs like Lenovo, Huawei, BOE, ZTE, Haier and BlueStar-ChemChina, have argued that the international success of these FDI late entrants cannot be realized without a deepening integration with other economies. They can effectively facilitate competitiveness through the

acquisition of advanced technological resources and investments in market accessibility, foreign R&D centres and headquarters (Rui and Yip, 2008; Rugman and Li, 2007; Buckley, Cross, Tan, Xin, Voss, 2008; Liu, 2007; Liu and Buck, 2009). Following this logic, much of the recent EMNE literature posits that contemporary Chinese firms would prioritize competitiveness enhancement and knowledge accumulation as the main development strategy, and use outward FDI as the springboard to access or acquire the resource that can enhance their competitiveness globally (Luo and Tung, 2007; Rui and Yip, 2008; Child and Rodrigues, 2005; Deng, 2009).

Apart from international expansion, Chinese firms' development of strategic resources may also be influenced by factors such as absorptive capacity, prior related experience, technology level, and access to finance. Based on a comparative case study of two prominent Chinese electronic manufactures, Lenovo and TCL, Deng (2010) argues that cross-border expansion does not always result in competitiveness enhancement due to the difference in the level of absorptive capacity firms possess (e.g. identification capability, combination capability, application capability, etc.). This is because a lower level of identification or combination capabilities can deter the firm from acclimating into the sociocultural differences and assimilating complex strategic resources. On the other hand, Zhu et al (2012) argue that Chinese firms' development is often constrained by access to financing because banks and investors are reluctant to support high-risk and costly R&D and innovation activities given the absence of a sufficient support system in the home market. Therefore, a successful assimilation or development of strategic assets in China requires the firm to possess various organizational antecedents, such as an effective adaptation mechanism (Stahl and Lengyel, 2003; Liu, 2007;

Fan, 2006; Nakai and Tanaka, 2010), strong ties with the government (Xie and White, 2004; Matthews and Cho, 2004), and a multidimensional construct of absorptive capacity in terms of identification, assimilation, and application capability (Deng, 2010; Cohen and Levinthal, 1990; Zahra and George, 2002).

By incorporating the springboard perspective (Luo and Tung, 2007), the absorptive capacity concept (Deng, 2010) and institutional influences (Xie and White, 2004) into the theoretical framework, the first study provides new empirical evidence of the role played by firm- and institution-level factors in developing strategic assets. The aim is to rationalize the long-term internationalization strategy adopted by contemporary Chinese firms, unveiling the influence of Chinese firms' long-range and visionary strategy on their competitiveness. The understanding of the determinants of strategic asset development is important for fast-developing EMNEs who are eager to address competitive disadvantages. It helps management design effective strategy to evaluate their own advantages and weakness, avoid irrational investments, and assimilate newly developed or acquired resources into the internal knowledge base.

Another research interest of this study is to explore the association between financing constraints and the development of strategic assets. The lack of access to finance has been widely considered as one of the severest barriers for competitiveness enhancement and survivability (Murray and Lott, 1995; Oslo Manual, 2005; Acs, Carlsson and Karlsson, 1999; Zhu, Wittmann, and Peng, 2012; Yang, Liu, Gao, and Li, 2012), but few attempts have been made to examine its impact on firm-level competitiveness. In the Chinese context, the absence

of an efficient finance market makes state financial institutions an important fundraising channel for local enterprises. Thus, the inclusion of the debt ratio and state-ownership variables enables us to unravel why Chinese firms are heterogeneous in terms of the outcome of competitiveness development, and how China's special institutional and banking system can affect the process.

The purpose of the three studies is to extend the emerging literature on EMNEs by examining the cause and effects of Chinese firms' international expansion. Apart from the contributions discussed above, the three studies as a whole present new empirical evidence on the prevailing theoretical propositions regarding contemporary Chinese firms, such as the Springboard perspective (Luo and Tung, 2007) and the Strategic Intent Perspective (Rui and Yip, 2008). These argue that international expansion has been increasingly used as a Springboard to obtain advanced resources and address other strategic needs, in order to support the rapid development of Chinese firms and help them establish a competitive position in the future. By exploring Chinese MNEs' locational determinants, the MP relationship, and strategic resource development, our studies shed new light on the rationale behind their expansion on the global stage, and provide a critical analysis of the applicability of conventional resource-based and asset-exploitation theories in the context of Chinese firms. Different from some existing Chinese MNE literature, our studies have also explored the role of exogenous factors in Chinese firms' internationalization strategies and implications, for example, whether the financial crisis has intensified the propensity of Chinese firms' asset-seeking FDI, the relationship between state ownership and firm profitability, the effect of accessibility to

financing on the development of strategic resources, etc. This adds to the discussion on "the extent to which the pattern of (Chinese) firm internalization is institutionally embedded rather than reflecting a strategic choice by the leaders of firms" (Child and Rodrigues, 2005, p.404-405).

In regard to the empirical contribution, the three interrelated studies provide practical guidance for Chinese firms who are eager to upgrade their internal knowledge base and competitiveness through international expansion. The first study explains what type of resource, market, and institution Chinese MNEs should pursue in more developed economies. The U-shaped curvilinear MP relationship found in second study can help Chinese firms' managers and strategy makers evaluate the opportunities and challenges they face at the current stage of internationalization, allocate resources effectively, and reap more benefits from the expansion process. The third study reveals the determining factors for the development of strategic resources in the context of Chinese MNEs, which offers advice to those that are in the process of internalization and seeking to obtain advanced capabilities.

Chapter Two: Research Setting

2.1 Chinese MNEs' OFDI Motives

Dunning's eclectic paradigm has been the dominant MNE analytical framework for the past two decades. It posits that there are three major motivations behind a firm's cross-border investments: market-seeking, resource-seeking, and efficiency-seeking (Dunning, 1993; 2000). Primarily using the experience of firms in developed economies, Dunning suggests that the patterns and composition of Multinational Enterprises (MNEs) are determined by three sets of advantages: the firm's ability to operate more efficiently in the foreign market (ownership advantages); the immobile, natural or created endowments of the host market (location advantages); and the efficiency of creating and leveraging competences through the firm hierarchy rather than through the market (internalization advantages). Collectively they are known as the OLI advantages. As the prerequisite for internationalization, firms must possess all the OLI advantages simultaneously in order to conduct cross-border investments (Dunning, 1993).

Although Dunning's model has been widely used to study MNEs from a variety of economies, the recent rise of EMNEs on the global stage and the increasing presence of their new forms of organization are continuously challenging the ownership-based theoretical justifications (Dunning and Lundan, 2008). Based on the study of contemporary EMNEs' internationalization strategies and patterns, Buckley et al. (2007) and many other scholars have questioned the general applicability of the eclectic paradigm (Child and Rodrigues, 2005; Yiu,

Lau and Burton, 2007). Several issues have been addressed that explicate the difference between EMNEs and the developed economy.

EMNEs generally do not possess the kind of ownership advantages in technology and managerial capabilities that are seen in the developed economy counterparts. Wang et al. (2012) think that contemporary Chinese enterprises are akin to 1980s Japanese MNEs in the US, who conducted cross-investment to explore technological or natural resources rather than to leverage ownership advantages (Kogut and Chang, 1991). Nor is it rational to imagine that efficiency-seeking can be a strong motive for Chinese firms to relocate: since China already has huge production base advantages, indigenous firms can gain few efficiency advantages from setting up in other countries (Buckley et al., 2008).

Secondly, the location choice of Chinese MNEs does not conform to the "standard profile" of host locations (Ramasamy et al., 2012). According to the usual trade and investment development path, firms normally begin their trade or investment enterprise in a country that is geographically and psychically close to the home country (Dunning, 1988; Johanson and Vehlne, 1977). In the early 1990s, developed economies with abundant natural resources, such as North America and Oceania, hosted more than 40% of the Chinese OFDI flow, but that figure was down to less than 9% in 2008. In fact, since 1997, more than 86% of Chinese OFDI has been directed to South East Asia and Latin America (MOFCOM, 2003).

The peculiar distribution may result from China's unique institutional framework of socialism oligarchy. Scholars believe that this plays a crucial role in Chinese OFDI development. With absolute control over the currency exchange and activity approval procedure, the government can persuade any indigenous business entity to respond to national development and

diplomatic strategies; the 1997 bailout of Hong Kong being a good example of this, as is the long-term support given to Latin America and Africa (Cheung and Qian, 2009; Hong and Sun, 2004; Deng, 2004; Luo Xue and Han, 2010).

The eclectic paradigm offers a number of prevailing hypotheses on the level and patterns of MNEs, and Buckley et al. (2007) argue that while some parts of the eclectic paradigm are readily applicable to Chinese MNE studies (i.e., market- and resource-seeking motives), the model itself is not sufficient, and should be used in conjunction with other, more specific, theories to capture the distinct features embedded in the Chinese unique institutional framework. In their 2007 paper, Buckley et al. indicate that Chinese MNEs operate under strong institutional influences enabling them to conduct otherwise risky investments. They receive formal and informal support in the form of soft budget loans (Lardy, 1998; Ma and Andrew-Speed, 2006; Buckley, 2004) and discriminatory policy (Deng, 2003; Aggarwal and Agmon, 1990; Taylor, 2002; Buckley et al., 2006)

Accordingly, Buckley et al. (2007) have developed several institutional and transactional variables for use in their analysis, which revealed that Chinese OFDI over the 1984-2001 period was predominantly attributed to a combination of poor institutions (by means of high political risks) and rich resources (ore and petroleum). Kolstad and Wiig (2009) reported a similar result, and reiterated the significance of political risks and natural resources as a combining determinant in their second paper (2012). As a subset of these two studies, Chinese MNEs within the Organization for Economic Co-operation and Development (OECD) economies are found to prefer large market size (using GDP as proxy), and the manner in which they perceive political risk is different from their counterparts in developing economies.

In recent years, Chinese MNEs have made an increasing number of aggressive acquisitions, targeting developed economy firms that have cash-flow or operational problems (Das, 2014). Chinese OFDI in developed economies is an emerging phenomenon, but could "potentially grow extremely big" (Brown, 2012, p.74). This has prompted scholars to switch research focus from examining Chinese MNEs as natural resource seekers, to exploring Chinese OFDI though the lens of strategic resources seeking and institution escaping (Zeng and Williamson, 2007; Deng, 2007, 2009; Rui and Yip, 2008; Luo and Tung, 2007). Although discussion about technology- and institution-related factors can be found in large systematic studies (Buckley et al, 2007; Kolstad and Wiig, 2012; Ramasamy et al., 2012; Wang et al., 2012; Cheung and Qian, 2009), most scholars have not found strategic asset seeking to be significant in disaggregated data analyses, with only Ramasamy et al (2012) reporting a positive relationship between Chinese OFDI and the interacted variable of institution quality and strategic asset-seeking.

Such underestimation of the impact of strategic asset-seeking may be attributed to the research setting. First of all, the systematic studies cited can be divided into two categories in terms of the time series: pre-2003; and post-2003 but before the 2007 financial crisis. Prior to 2003, private firms in China were prohibited from making outward investments, thus Buckley et al. (2007) regard the early-stage Chinese MNEs as being all state-owned enterprises. Most state-owned enterprises in China come under the business types of heavy industries and resource exploitation (Luo et al., 2010). It is therefore unlikely they can be induced to expand overseas purely in order to obtain technological assets. The discrimination of ownership (i.e., state-owned versus private firms) was gradually relaxed from 2003. After the financial crisis, the government of China further relaxed its control on the foreign currency exchange, and after that private firms

were encouraged to establish foreign units (MOFCOM, 2010). The three notable studies that treat Chinese MNEs as technology seekers have been conducted during the period 2007 to 2009 (Rui and Yip, 2008; Deng, 2009; Luo and Tung, 2007). These scholars anticipated the future trend of Chinese multinational expansion by exploring the internationalization process of various Chinese leading firms. While the OFDI of the developed economies fell during the financial crisis, China's increased from $24.8 billion to $40.7billion (Davis, 2009). This may indicate that the 2007 financial crisis played a "watershed" role in impacting Chinese OFDI.

That being said, although China is the second largest trading partner and the largest exporter to the EU (Eurostat, 2015), the EU attracted only 3.7% of total Chinese OFDI during the period 2003 to 2008 (MOFCOM, 2010). The distribution of Chinese OFDI in the EU seems modest, but according to the firm-level database, ORBIS, the EU is the second highest host of Chinese MNEs among all economies (Orbis, 2015). From 2003 to 2014, there were approximately 6,800 active EU firms wholly owned by Chinese shareholders, which outnumbers the sum of Chinese WOS in Africa and South America (Orbis, 2015). Although count data has not been widely used in Chinese MNE studies, Ramasamy et al (2012) and Wang et al (2012) used Chinese stock market data (the number of FDI projects made by Chinese listed companies), and they provided a very holistic analysis of Chinese MNEs' determinants.

The literature, and most particularly the analytical frameworks of Buckley et al. (2007), Ramasamy et al. (2012) and Deng (2009), therefore indicate that Chinese MNEs in the developed economies may fundamentally differ from their counterparts in the developing economies with respect to their internationalization motives and location choice.

2.2 OFDI Implications for Chinese MNEs' Performance

Conventional viewpoints concerning the MP relationship assert that firms with proprietary advantages of productivity or technology can utilize geographical diversification to maximize the exploitation of such advantages even in imperfect final-product markets (Hymer, 1976; Rugman, 1979; Caves, 1996). In recent years, a variety of studies in this field have shifted to focus on the costs involved of such activities. Costs are incurred in the distant coordination of business activities, in adapting to unfamiliar markets, and in the phased effects of internationalization on firms' performance indicators (e.g. the manner in which under-, optimal- and over-internationalization can affect firms' profitability). An increasing number of empirical studies have been conducted to test the curvilinear effects of geographical diversification, which prompt the consensus that firms' MP relationship is U- or S-shaped rather than linear (Hitt et al., 1997; Geringer et al., 1989; Contractor et al., 2003; Lu and Beamish, 2004).

In contrast to developed economy MNEs, firms from the emerging economies do not possess adequate firm-level specific advantages to enable them to exploit market imperfections. Instead, they use internationalization as a springboard, allowing them to avoid entry barriers and penetrate the developed strategic asset market, which they can then access to obtain valuable resources that are not available in their home market (Deng, 2009; Rui and Yip, 2008; Luo and Tung, 2007). Rui and Yip (2008) point out that some large state- and privately-owned MNEs from China share similar features to Japanese post-war companies with regard to their globalization strategy, which is to "pursue a long-term strategic intent" even though the objective is costly to achieve (p.215). In this sense, EMNEs are more likely to suffer a period of

financial loss at the initial stage of internationalization.

Deng (2010) believes that the level of absorptive capacity the parent firm possesses can effectively ease the detrimental effect of enlarged diversification. Related literature on this topic highlights the roles of a firm's previous experience and internal knowledge in reinforcing the foundations of knowledge transfer, opportunity interpretation and technological progress improvement (Lane, Koka, and Pathak, 2006; Zahra and George, 2002). Scholars believe that the possession of these organizational antecedents can facilitate the translation of FDI into competitive advantages; thus these firms benefit more from internationalization and are more likely to achieve superior performance (Jansen, van den Bosch and Volbera, 2005; Zahra and George, 2002). However, the absence of these characteristics can result in exploration failures, which may weaken firms' competitive position in the market (Deng, 2010).

Firms with different ownership structures (e.g. state- and privately-owned) receive discriminatory treatment from China's institutions (Wang et al, 2012; Lardy, 1998). The opaque institutional framework determines Chinese firms' intention and strategy concerning OFDI, and may thereafter affect the impact of OFDI on their performance. Benefitting from strong financial and diplomatic support, Chinese state-owned firms generally adopt a more aggressive FDI strategy, targeting strategic resources buried in the host market (Wang et al., 2011; Anderson and Sutherland, 2015; Luo and Tung, 2007; Rui and Yip, 2008). In this sense, some scholars argue that firms with strong government ties may expand relentlessly "at the expense of profits" because they enjoy preferential access to financial resources (Khanna, Palepu, and Sinha, 2005, p.15). The ownership structure may therefore have a significant influence on the firm's motive for internationalization, and also on the way they exploit the enlarged business

territory.

2.3 OFDI Implications for Chinese MNEs' Competitiveness Development

Luo and Tung (2007) aver that international expansion has been frequently used by EMNEs to "acquire critical resources needed" for resolving deficiencies in a variety of resources, such as market knowledge, product innovation, managerial capabilities, supply chain, customer base, and brand awareness (Luo and Tung, 2007, p.484-485). Since firms from the emerging economies generally possess unique advantages in technology standardization and cost-effective production, the strategic resources they source externally can reinforce their competitive position in the global market, and allow them to compete even with leading firms from the developed economies (Buckley et al., 2008).

OFDI can benefit the development of EMNEs' competitiveness in the following ways: Firstly, asset-seeking OFDI compensates for EMNEs' competitive disadvantages. Extant literature has explained why EMNEs without proprietary advantages can still have the strategic intent of becoming global leaders (Rui and Yip, 2008; Wei, Zheng, and Lu, 2014; Meyer and Xia, 2012). Asset-seeking OFDI in the form of mergers and acquisitions (M&As) provides an expedient tool for EMNEs to close the technology gap. Firms can use cross-border M&As to gain access to foreign affiliates' strategic resources such as human capital, market resources, manufacturing techniques, intellectual property and market channels (Lane, Salk, and Lyles, 2001; Chung and Alcacer, 2002; Matthews, 2006; Wesson, 2004). Resource-seeking FDI will lead to an immediate reconfiguration of firms' existing knowledge base towards the higher end of the value chain, and it allows EMNEs to leapfrog time-consuming and path-dependent

development of firm-specific advantages (Dierickx and Cool, 1989; Deng, 2009).

Secondly, opportunity-seeking OFDI enables EMNEs to bypass trade barriers, penetrate protective markets, and obtain valuable information. Since EMNEs are concentrated in less advanced industries, they are highly reliant on global exports to sustain scale production advantages. In order to protect domestic manufacturing, many foreign governments have imposed targeted trade sanctions, such as quota restrictions and tariff penalties, in an effort to limit Chinese firms' accessibility. The deficiency in reaching and interacting with overseas customers weakens Chinese firms' advantages in standardized products, and this forces cost-leading Chinese manufacturers to invest in a transit port (e.g. Singapore, Turkey, Fiji, Jamaica, etc.) or foreign production base (e.g. the Haier assembly centre and Fuyao's new factory in the US) to alleviate their exposure to host market hostility. The improved accessibility to foreign markets sustains EMNEs' cost-effective advantages by increasing their market size. In addition, closer interaction with foreign markets, especially with developed strategic factor markets, enables EMNEs to learn new market trends and technological developments, and they can assimilate this valuable information into product and process innovation and improve their response to changes in customer demand (Deng, 2007; Li, Li and Shapiro, 2012).

Thirdly, Chinese EMNEs can use OFDI to improve the efficiency of competence development by relocating certain business activities into more supportive markets. China has long been criticized for its rooted institutional constraints in terms of poor protection of intellectual property, foreign exchange control, violation of ownership rights, and preferential treatment to state-owned enterprises. The opaque institutional framework of China results in an

ineffective environment that erodes domestic firms' motivation for conducting research and development and innovative activity. Hence, Chinese firms barely participate in developing technological capabilities, preferring OEM and licensee agreements when they need to get involved with high-end products (Ling, 2007; Khanna and Palepu, 2006). Deng (2009) argues that EMNEs can use OFDI as an "effective escape response to the home country institutional constraints" (p.83). By relocating certain business activities in a more sound and efficient institution, EMNEs can avoid constraints exclusively embedded in domestic institutions and "thus be able to concentrate on building, exploiting and upgrading their competitive advantages" (Deng, 2009, p.77).

Chapter Three: FDI Location Choice of EMNEs in Developed Economies: What determines Chinese MNEs' Rapid Expansion into the European Union before and after the Financial Crisis?

3.1 Introduction

Over recent years the growing presence of emerging economy multinational enterprises (EMNEs) in developed economies has attracted a great deal of attention from media and

academic researchers. While developed country MNEs are suffering from funding constraints, cash-rich EMNEs have started to actively invest on a global scale. China, as one of the emerging economy leaders, was ranked only 17th on the outward foreign direct investment ("OFDI") list before the financial crisis, but in 2012, the emerging economy leader surpassed both the United Kingdom and Germany, becoming the third largest FDI investor in the world (UNCTAD, 2013). Although the economic integration between China and the EU has become increasingly tighter and Chinese OFDI flow to the EU tripled during 2007-2009, and in 2011 the figure tripled again (Ministry of Commerce China, 2013), few empirical studies have been conducted to explore the locational determinants of the increasing presence of Chinese OFDI in developed economic entities, such as, the EU, the North American Free Trade Area, or the Asia-Pacific Economic Cooperation. Are contemporary Chinese multinational enterprises (MNEs) primarily drawn to natural resources and market demand proposed in conventional international business theories? Or is there an increasing tendency that firms from emerging economies are now prone to invest in more developed markets seeking better property rights protection and the opportunity to improve technological capabilities?

One challenge of analysing the OFDI determinants of Chinese EMNEs derives from the peculiar characteristics of latecomers to internationalization. Extant literature argues that, due to incomplete strategic markets, late economic liberalization and weak research and development systems, emerging economy firms generally do not possess the traditional ownership advantages, such as well-established brands or cutting edge technology (Deng, 2009; Dunning, Kim, and Park, 2008). Therefore, the conventional asset-exploitation theoretical models based on developed economy MNEs, such as the eclectic framework, resourced-based theory, and

internalization theory, may lack generalizability when studying the diversification patterns of Chinese MNEs (Anderson and Sutherland, 2015). In contrast, EMNE theories often link the rapid development of Chinese OFDI to asset-seeking or asset-exploration strategies, because increasing global competition has forced Chinese firms and state government to reconsider their competition strategy (Deng, 2009; Makino et al., 2002; Kedia et al., 2012).

Some scholars believe that the financial crisis is a critical turning point for emerging economy asset seekers, with its role largely underestimated in extant studies. The 2007-2008 structural breakdown in international financial markets led to an enormous depreciation in the US dollar, the weakened foreign currency and consumption along with a corresponding rise in China's resource and labour cost forcefully urged domestic firms to upgrade their position in the value chain, and consequently, OFDI in recent years has been increasingly used as a means of acquiring complementary resources to sustain competitiveness (Wei, Zheng, Liu and Lu, 2014).

Since Chinese firms' strategic resource-seeking investment is an emerging phenomenon and promoted by the recently improved entrepreneurship in China, the data adopted by many extant systematic studies failed to capture the increasing importance of advanced capabilities acquisition (e.g. Buckley et al (2007); Kolstad and Wiig (2012)). As a result, the scarcity of longitudinal data constrains the production of quantitative studies regarding Chinese MNEs' asset-seeking behaviours, and the preponderance of extant literature is still based on case studies and interviews (Luo and Tung, 2007; Deng, 2007; Rui and Yip, 2008). Data quality is another severe issue besetting EMNE studies. Since China's statistical bureau did not adopt the international OFDI recording standard prior to 2003 (i.e. the standard practised by the IMF and

OECD), the data sourced from different databases can be very inconsistent (Cheung and Qian, 2008). Some scholars also believe that the data provided by MOFCOM is less reliable as a result of reinvestment and offshore-financial centre problems (Kolstad and Wiig, 2012; Ramasamy, Yeung, and Laforet, 2012; Cheng and Ma, 2008).

In this study, we analyze the location choice of Chinese MNEs using a firm-level database, named ORBIS, which is provided by the Bureau Van Dijk. The ORBIS database not only has the highest coverage of SMEs among all other firm-level databases, it also provides very detailed information on the participant firms' backgrounds and geographic distribution, which allows different types of territorial breakdown analysis (Driffield and Menghinello, 2009). Another advantage of applying a firm-level database when studying Chinese MNEs' location choice is that we can avoid the reinvestment issue and exclude shell companies by checking the firm's operating and employment data, this screening process enables us to improve data accuracy regarding Chinese firms' location choice.

Following a substantial number of emerging studies, we conceptualize the location choice of Chinese MNEs with the aid of Dunning's eclectic framework, in combination with a strategic asset-seeking and institutional escaping perspective (Buckley et al., 2007; Deng, 2009; Kolstad and Wiig, 2012; Luo and Tung, 2007). Our research aims to fill the current research gap on the impact of financial crisis and different types of strategic resources by specifically studying what drives contemporary Chinese MNEs to rapidly expand across the 28 EU nations.

The EU is a particularly good case for testing the applicability of conventional and emerging FDI theory to Chinese firms. On one hand, the EU represents China's opposite in the spectrum of governance mechanism and economic structure. Further, to study the way Chinese

MNEs expand in veteran capitalist markets contributes to the understanding of recent rising EMNEs' development and competition strategy. On the other hand, the European Union comprises 28 geographically proximate but economically, politically and culturally varied countries. This offers good ground for a multilevel analysis, because although some EU members may share very similar country-level characteristics such as political stability and technological development, certain regions of these countries may be significantly different in terms of regional market size, labour availability and the stock of strategic resources.

3.2 Theoretical Background and Hypotheses Development

3.2.1 Market-Seeking Motive

Market-seeking or demand-seeking FDI is one of the most common cross-border expansion strategies, designed to leverage the firm's advantage in product, brand or technology in alternative markets in order to gain market share and increase revenue (Dunning, 1993). It is believed that Chinese MNEs' location choice is closely associated with the host market's size and potential. China's recent rise in a number of emerging industries (e.g. smart phones, chemical, railway construction, etc.) shows that an increasing number of Chinese manufacturers are actively competing with global firms and attempting to establish a competitive position in the world market (Buckley et al., 2008; Luo, Xue, and Han, 2010).

Triggered by the "Go Out" strategy, and accelerated by China's accession to the WTO, the first round of Chinese market-seeking investments started in the early 1990s, aiming to exchange China's demographic dividend of cheap labour and resources, for foreign currency

reserves (Wu and Chen, 2001). Mostly concentrated at the lower end of the value chain, the standardized products offered by Chinese firms are often constrained by anti-dumping tariffs, import quota, and other types of trade barriers imposed by other economies. These constraints have pushed a large number of Chinese manufacturers to use foreign subsidiaries as an expedient tool for the avoidance of targeted barriers and sanctions (Hong and Sun, 2004; Taylor, 2002; Buckley et al., 2008).

The aggressive market-seeking FDI is reflected in a growing number of quality Chinese manufacturers, such as, Huawei, BYD, DJI, Xiaomi, and ZTE, that have the ability to leverage advantages in economies of scale and technology standardisation (Bhaumik, Driffield, and Zhou, 2016; Bhaumik and Driffield, 2010), to actively compete with leading global firms (Buckley et al., 2008). Since mass production needs greater consumption power, offensive market-seeking firms are more prone to invest in large market size or potential (Buckley et al., 2008; Luo and Tung, 2007; Deng, 2003; Luo et al., 2010).

Demand-related factors are the most frequently tested variables in market-seeking studies. As market demand or potential consumption power increases, firms are more likely to achieve economies of scale, and to ultimately increase their profitability (Dunning, 1993). Numerous systematic studies have used GDP-related data as a proxy for host market attractiveness, for instance, total GDP, GDP growth rate, GDP per head (Buckley et al., 2007; Alon, 2010; Fung et al., 2002; Kolstad and Wiig, 2012; Alon, 2010; Kang, 2009). Most studies reported a positive relationship between Chinese OFDI in developed economies and the host market size. We

argue that Chinese MNEs' market-seeking motive for OFDI is a long-term and consistent strategy and is not affected by the financial crisis, thus the first hypothesis is developed as:

Hypothesis 1a: The location choice of Chinese MNEs' OFDI is positively associated with the host market size.

Hypothesis 1b: The positive influence of demand-related factors to Chines MNEs' OFDI is consistent regardless of the financial crisis.

3.2.2 Strategic Asset Seeking

In the traditional eclectic paradigm, firms' backward integration is attributed to the exploration of a particular resource that can secure their access to production materials and improve operation efficiency (Dunning, 1993). Therefore, resource-seeking FDI is generally associated with host countries' natural endowments. The rapid economic growth of China's economy requires enormous resources to ensure the supply of factor inputs (Zhan, 1995; Cai, 1999). Thus, the government needs "national players" (state-owned enterprises) to obtain the agricultural, petroleum, and mineral resources required to fulfil the production needs (Hong and Sun, 2004; Luo et al., 2010; Buckley et al., 2008). Apart from the long-term search for natural resources (Tayler, 2002), recent literature has argued that the importance of strategic assets to Chinese MNEs is escalating amid their increasing demand for the resource that can compensate for competitive disadvantages (Deng, 2009; Rui and Yip, 2010).

Strategic assets refer to the set of resources and capabilities that are "difficult to trade and

imitate, scarce, appropriable and specialized", and the accumulation of such assets will subsequently strengthen the firm's competitive advantages, which can be exploited to enhance the firm's performance in the long-term (Amit and Schoemaker, 1993, p. 36). The resource-based view (RBV) suggests that a firm's strategic assets can be either developed internally or sourced from strategic factor markets (Barney, 1993), hence some recent International Business studies attribute Chinese MNEs' location choice to the exploration of advanced managerial or technological capabilities, because the asset acquisition can lead to an immediate reconfiguration to the parent firm's existing knowledge base.

Apart from the instant gain in the stock of strategic resources, the investment in economies with rich intellectual property and human capital may also benefit Chinese MNEs in the following ways: 1) securing leadership in the market can strengthen the relationship with the home government; 2) increase the possibility of learning and assimilating valuable knowledge from industrialized markets and leading competitors; 3) proactively compete against existing rivals and curb the development of potential competitors; 4) an ambitious and visionary strategic intent enables the firm to satisfy the investors, management, and shareholders amid the improved entrepreneurship in today's China; 5) offset the country image disadvantages (Hitt, Harrison and Ireland, 2001; Nolan, 2001; Luo and Tung, 2007; Rui and Yip, 2008).

The attractiveness of developed economies' strategic assets to Chinese firms is strengthened by the 2007-2008 financial crisis, because the depreciated US dollar and the corresponding shrinking in global consumption weakened Chinese manufacturers' advantages as the "world factory" (Wei, Zheng, Liu and Lu, 2014), forcing Chinese manufacturers to re-evaluate their competitive strategy and placing the technological and managerial capabilities

into the future development landscape.

Buckley et al. (2007) used "total annual patent registration in host country" as the proxy for the availability of host markets' strategic assets when studying a sample of Chinese MNEs during the period 1984-2001. Their analysis did not find that the location choice of Chinese MNEs is associated with this factor. Buckley and his colleagues (2007) conjectured that Chinese MNEs' increasing presence is a new phenomenon, and that the link between strategic assets and their geographical distribution might become more evident in the future when the "go global" policy is fully implemented.

Kolstad and Wiig (2012) reported similar findings, arguing that the attractiveness of strategic assets is weak for early-2000 Chinese MNEs. Ramaswamy et al (2012) and Anderson and Sutherland (2015), using more recent Chinese MNE data, find that the level of a region's technology development is positively associated with Chinese MNEs' location choice. We argue that these mixed and inconclusive findings on the influence of strategic assets could be attributed to a lack of longitudinal data. On the other hand, the global financial collapse in 2008 may have facilitated Chinese MNEs' technology-seeking ambitions (Luo, Xue and Han, 2010; Yang and Stolenberg, 2014; McAllister and Sauvant, 2013; Anderson and Sutherland, 2015), because it "created a prolonged downturn in developed markets and a collapse in the valuations of many western based MNEs" (Anderson and Sutherland, 2015, p.91). Thus, we argue that the devaluation in the developed economy MNEs' market values and strategic assets has provided more opportunities for Chinese firms to address their technology gap through aggressive asset-seeking investments.

Hypothesis 2a: The location choice of Chinese MNEs' OFDI is positively associated with the availability of strategic assets in the host market.

Hypothesis 2b: The positive influence of technology-related factors to Chinese MNEs' OFDI is amplified by the 2007-2008 financial crisis.

3.3 Data and Methodology

3.3.1 Data Method

Our dataset on Chinese MNEs' location choice is sourced from the full version of ORBIS, a rich firm-level database that includes the detailed financial data and operating information for numerous enterprises all over the world. The database has detailed record of firms' address, revenue, employees, shareholder backgrounds, incorporation year, etc. As mentioned in the first section of this study, using firm-level data can help to verify the actual geographical distribution of Chinese OFDI. Hence, we are able to estimate whether the subsidiary is a tax shelter or reinvestment springboard based on the information of the company's performance indicators such as its operating revenue and costs, balance sheets, and employment information.

The disaggregated data also allows different types of territory breakdown analysis of Chinese MNEs' internationalization behaviours in the European Union, which is an economic entity comprising 28 geographically proximate nations with fundamental differences in economic development, institutional framework, education level, etc. National and sub-national location determinants are highly likely to have simultaneous and significant influence on firms' investment preferences. For instance, the 2012 average GDP of Centro, Italy, is about 70%

lower than that of Inner London residents, but the number of Chinese wholly-owned subsidiaries (hereafter WOS) in Centro is 78, which is much more than the 33 situated in Inner London. This may indicate that, despite Italy being less economically developed, Chinese MNEs may still incline to invest in the heart of Mediterranean Sea due to Italy's low inflation rate, high cultural similarities to China, and its significant position in EU single market.

Although the firm-level dataset has been increasingly used in recent years (Helpman et al, 2004; Driffield and Menghinello, 2009; Ramasamy et al., 2012), it is also important to remember that there are some drawbacks to using ORBIS data in multilevel analysis. These are as follows: 1) ORBIS data is sourced from business registries and holds only active company information. This may cause under-coverage issues and other structural differences that "characterize the business population extracted from the ORBIS database with respect to the target population mirrored by official statistics (i.e. OECD, IMF, WorldBank and Eurostat)" (Driffield and Menghinello, 2009, p.30); 2) We also found that the geocode breakdown standard that ORBIS uses is slightly different to NUTS-2, which is the standard applied by the European Union official database, EuroStat. This may be because Orbis has not updated its geocode system to the latest version. Therefore, we re-categorized the sub-national information to match before the empirical analysis was conducted; 3) The ORBIS database does not contain entry information for Chinese MNEs, which raises the difficulty of verifying when and how the Chinese firm entered the EU. In this case, we had to check the firm's parent company information and the news relating to its OFDI history from China's Ministry of Commerce and State Administration of Foreign Exchange, in order to confirm its country of origin and

shareholder background. We then eliminated repetitive and inaccurate information ensuring that the data used in this study is reliable.

Our model also includes a number of control variables, such as, the region's unemployment rate, capital city location, and whether the host market is one of the senior EU members (as Table 3.1 presents, we classify the countries that joined the EU before 2004 into senior EU members), in order to control for region- and nation-specific effects. We have also incorporated cultural difference and political stability variables into our model because the host market's institutional framework may exert considerable influences on Chinese firms' location choice. The core notion of institution-based theory suggests that, for the purpose of acclimating into the social system, a social entity (either an individual or organization) always attempts to earn legitimacy by conducting its actions in accordance with the value and norms embedded in the institution (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; North, 1990).

Previous theoretical justifications have summarized two categories of institutional influences that can shape the MNE: 1) formal constraints, such as laws, political rules, and judicial decisions, reflect an economy's legal and regulative system, which serves as the foundation of the host market's efficiency and stability (Scott, 1995; Khanna and Palepu, 1997); 2) North (1990) and Peng (2002) suggest that when administration forces fail to maintain an alignment between the firm's needs and the market mechanism (i.e. imperfect banking system or poor protection of intellectual property), informal constraints - including sociological and cultural norms - will take the place of formal constraints, and shape the way firms cooperate with other stakeholders and adapt themselves to the market.

Political risk is regularly used as the measure for formal institutional constraints, and there is a large number of relevant studies suggesting that a market with lower risks generally attracts more corporate investors as it can provide a measure of constancy in which firms can operate more efficiently (Blonign, 2005; Wei, 2000; Gani, 2007; Asiedu, 2006). In contrast, investors are less attracted to risky institutions because of the erratic policies, the inefficient enforcement of laws, and poor governance quality, which can increase the uncertainty for business activities, and even may be to the detriment of firms' ownership rights (Chakrabarti, 2001).

The culture of a particular organization or region is the foundation of its normative and cognitive system, and has the power to influence the way the social participants behave and interact. Studies based on Asian firms (Boyacigiller, 1990; Nitsch, 1996) find that the increased cultural differences between host and home market can complicate the management, impede performance and raise the coordination cost in terms of technology transfer, information flow and remote management. Therefore, Asian firms are less prone to invest culturally distinct countries. In order to quantify the cultural difference between China and the host market, we used Kogut and Singh's (1988) metric to calculate the multi-dimensional distinctiveness based on the two countries' Hofstede score (the four aspects considered are: power distance, masculinity, uncertainty avoidance, and individualism).

Table 3.1 EU Members, Join Time and the Number of Chinese WOS Located in the Market

Senior Members	Time	Chinese WOS	New Members	Time	Chinese WOS
Belgium	1958	27	Cyprus	2004	18
France	1958	359	Czech Republic	2004	234
Germany	1958	1690	Estonia	2004	6

Italy	1958	702	Hungary	2004	2
Luxembourg	1958	13	Latvia	2004	90
Netherlands	1958	562	Lithuania	2004	4
Denmark	1973	11	Malta	2004	3
Ireland	1973	74	Poland	2004	57
United Kingdom	1973	331	Slovakia	2004	89
Greece	1981	5	Slovenia	2004	6
Portugal	1986	11	Bulgaria	2007	12
Spain	1986	50	Romania	2007	3164
Austria	1995	26	Croatia	2013	8
Finland	1995	9			
Sweden	1995	12			

The list of variables is presented in Table 3.2:

Table 3.2 Regional and National Location Determinants

Region-Level

Variable	Proxy	Theory	Data Source
Firms	The Number of Chinese wholly owned subsidiaries in a given region	Dependent Variable	ORBIS (2016)
R_GDP	Regional GDP in Logarithmic Form	H1: Market-Seeking	Eurostat (2015)
R_Unemploy%	20-64 years old unemployed population to total population	Control Variable	Eurostat (2015)
R_TechHR%	Population working in high technology industry to total population	H2: Strategic Asset Seeking	Eurostat (2015)

R_Capital	Capital City Located in the Region: Yes, 1; No, 0	Control Variable	Eurostat (2015)

Nation-Level

Variable	Proxy	Theory	Data Source
N_Culture	Cultural Difference Between the Host Market and China Calculated in Kogut and Singh's Metric (1988)	Control Variable	Hofstede National Culture Database
N_Stability	World Development Bank institutional stability indicator	Control Variable	World Bank (2015)
N_TechExp	Host Country Export of High Technology Products in Logarithmic Form	H2: Strategic Asset-Seeking	World Bank (2015)
C_Senior	Join the EU before 2004: Yes, 1; No, 0	Control Variable	Eurostat (2015)
C_Crisis	The Breakout of Financial Crisis: Before, 0; After, 1	Control Variable	

3.3.2 Multilevel Negative Binomial Model

The factors affecting Chinese firms' location in this study are not conducive to analysis by merely aggregating sub-national variables, because this may cause the "ecological fallacy" issue (Jargowsky, 2001, p. 715), meaning we could not control for endogeneity at different levels of territorial breakdown (Peterson et al, 2012). Therefore, in order to simultaneously analyze both national and regional factors while controlling for the confounding effects posed

by regional variables, the multilevel modeling (MLM) approach appeared to be more practicable (Arregle et al, 2006).

Since our study uses count data (i.e., the number of Chinese wholly-owned subsidiaries in a given region) to represent the investment preferences of Chinese MNEs, we adopted the count data model to test our hypotheses on different levels of locational determinants. We then used Stata to test whether equidispersion or zero-truncation hold in our dependent variable, and the result turned out to be that the data for Chinese MNEs' locational decisions is overdispersed but there is no issue with excessive zeros. Thus, we chose to use the less restrictive negative binomial model to test our hypotheses and construct the model in multilevel modeling form with random intercepts and fixed coefficients. The model is constructed as follows:

1) In contrast with the basic Poisson model, the overdispersion parameter **r** has been added into the negative binomial model, which is written as: $Pr(Y = n) = (\frac{r}{r+u})^r \frac{\Upsilon(r+n)}{n!\Upsilon(r)} (\frac{u}{r+u})^2 \ for \ n = 0,1,2,\ldots$ Where **n** is the dependent variable, representing the number of occurrence of the event being analyzed, **u** is the mean of the explanatory variable, and **r**, as discussed, is the over-dispersion parameter. The model will be the same as the Poisson model when r is equal to 0, which means there is no dispersion in our dataset.
2) By considering the multilevel linear predictor, the two-level model can be re-written as: $E(Y_{ij}) = exp\ (x_{ij}'\beta + Z_{ij}'u_i)$. In this model, we used Y_{ij} as a proxy of the dependent variable, and i and j represented the code of the country and the region nested within the country, x is our multilevel independent variable developed from the theoretical hypotheses,

β represents the fixed coefficients of the explanatory variables at different levels. $Z_{ij}{}'u_i$ forms the random part of this model; it indexes the regional and national influences that cannot be observed by the hypotheses we developed. This is also known as the random effects or unexplained variability.

3) We let m_{ij} be the mean of Y_{ij} which follows the Pascal distribution. We then converted $Z_{ij}{}'u_i$ to an unconditional model in order to explore the source of unexplained variability: $E(Y_{ij}) = exp\ (\beta_1 + \beta_2 x_{ij} + \beta_3 x_j + \zeta_k)$. β_2 and β_3 are the coefficients of regional and national explanatory variables, and β_1 is the intercept, measuring the intercept of national level differences, which shows how economic and institutional differences across the EU nations contribute to regional influences on Chinese OFDI. We also have ζ_k to explore the source of country variability.

3.3.3 Chow Test for the Financial Crisis Impact

Since the 2007-2008 subprime mortgage collapse overwhelmed the developed markets' credit system, an emerging view in international business literature argues that the propensity of post-crisis Chinese firms to source advanced technological and managerial capabilities is significantly intensified because the asset acquisitions in developed economies are promoted by the depreciation of foreign currencies and their counterparts' market value (Luo et al., 2010; Anderson and Sutherland, 2015; Yang and Stoltenberg, 2014). In order to explore the impact of the financial crisis on the estimated parameters, the Chow test (1960) is employed. The approach is commonly used in time-series studies to test whether the coefficients in two models at different periods of time are different to each other, it offers a way of testing for the equality

of coefficients before and after the onset of the crisis.

The first step of performing the Chow test is to construct the pooled model:

$$y_0 = \alpha + \beta x_{1t} + \gamma x_{2t} + \varepsilon \text{ (Pooled)}$$

By splitting the data, we have two subsample models:

$$y_1 = \alpha_1 + \beta_1 x_{1t} + \gamma_1 x_{2t} + \varepsilon \text{ (Pre-crisis)}$$

$$y_2 = \alpha_2 + \beta_2 x_{1t} + \gamma_2 x_{2t} + \varepsilon \text{ (Post-crisis)}$$

The H_0 of the Chow test asserts that $\alpha = \alpha_1 = \alpha_2$, $\beta = \beta_1 = \beta_2$, $\gamma = \gamma_1 = \gamma_2$, and the individual errors variance components follow the normal distribution, but if the null hypothesis is rejected, each subgroup has its own slopes for independent variables, thus we cannot pool the panel data under this circumstance (Kennedy, 2008; Park, 2011). The Chow test follows F-distribution with k and $n - 2k$ degrees of freedom, where k is the number of parameters and n is the full sample size. Let SSR_0 be the sum of squared residuals from the pooled model, SSR_1 and SSR_2 respectively represent the sum of squared error from the regression before and after the presumed structural break, the Chow test statistic is written as:

$$\mathrm{F} = \frac{(\mathrm{SSR}_0 - (\mathrm{SSR}_1 + \mathrm{SSR}_2))/\mathrm{k}}{(\mathrm{SSR}_1 + \mathrm{SSR}_2)/(\mathrm{n} - 2\mathrm{k})}$$

By using the Pearson residual formula, we have:

$$\mathrm{F} = \frac{((3694 - (1169 + 2457))/9}{(1169 + 2457)/(1038 - 2 \times 9)}$$

$$\mathrm{F} = 2.13$$

The Chow test result is greater than the critical value at the 5% level ($\mathrm{F}_{(0.05)} = 1.89$, $\mathrm{F}_{(0.01)} = 2.42$), which rejects the null hypothesis. This indicates that the coefficients in pre- and post-crisis model are significantly different, thus the subsample analysis is more suitable for this study rather than the pooled model.

3.4 Findings and Discussion

In our preliminary analysis, we tested all our hypotheses based on the geographic distribution of approximate 4,500 Chinese wholly-owned subsidiaries across 27 EU countries. Tests were conducted with both multilevel Poisson and multilevel negative binomial models (note that the 2,300 Chinese WOS in Romania are excluded from the data because their shareholder and operating information are incomplete in ORBIS). We then performed a likelihood-ratio test to compare the two mixed-effects models, and the result is significant. This suggests that the Poisson model is nested within the negative binomial model, thus, the latter is more appropriate for analyzing the overdispersed and disaggregated data in this study.

Table 3.3 presents the full sample set of empirical results obtained from the MLM negative binomial. Our findings indicate that the growing presence of Chinese investments is consistently associated with the region's market size (GDP) and strategic assets (skilled labour force). In order to test Hypothesis 2b (whether the financial crisis has intensified Chinese MNEs' strategic asset-seeking motive), we adopted the t-test approach to test the difference in the estimated values of coefficients. However, the test result is too small to show statistical significance (Keith, 2006).

Table 3.3 Overall Results for the location determinants of Chinese MNEs

	Before Crisis	**After Crisis**
Region Level		
R_GDP	0.85(0.13) ***	0.92(0.10) ***
R_Unemploy%	2.00(2.72)	0.76(2.43)
R_TechHR%	13.77(2.83)***	13.61(2.25)***
R_Capital	0.25(0.28)	-0.13(0.21)

Country Level		
N_Culture	-0.36(0.24)	-0.27(0.41)
N_Stability	-0.04(0.09)	-0.02(0.07)
N_TechExp	3.50(3.74)	4.07(6.47)
C_Senior	-1.50(0.53)***	-0.85(0.84)
Variance Components		
Unconditional Model	1.43	2.33
Nation-Level Only	0.91	1.87
Region-Level Only	0.64	1.44
Multilevel Model	0.32	1.04
Other Estimates		
Time Effects	Panel	Panel
LR Test vs. Nbinomial	36.72***	216.51***
Integration Points	7	7
Log Likelihood	-566.69	-893.47
Wald Chi2(0)	174.53***	274.97***
Observations	550	550
Region Group	114	114
Nation Group	27	27

Note: Standard errors are presented in parentheses.

***, ** and * indicate that the coefficient is significant at the 1%, 5% and 10% levels, respectively.

In contrast, we found that Chinese firms were more inclined to invest in the new EU members before the financial crisis occurred in 2008. Since the governance quality of the new EU country members is generally inferior to that of the senior EU countries (as Table 3.4 presents), this finding may support the hypothetical impact of the global economic trends on Chinese firms' internationalization decisions. The rationale behind the Chinese firms' pre-2008 preference for the new EU countries may be attributed to their ability, in less regulated markets, to leverage their special capacity for coping with institutional voids, thus enabling them to

operate more efficiently than their competitors. On the other hand, having a subsidiary in the new EU countries may also act as a trading springboard, allowing Chinese firms to bypass the otherwise strict EU trade standards and other trade barriers. However, we did not find direct evidence because the political stability and the joining time of EU membership are both insignificant in the post-crisis model. Further, the Chinese firms' reduced propensity for investing in new EU countries cannot be assumed to be associated purely with the impact of the financial crisis. For example, in 2008, the EU Commission suddenly tightened control on the import of Chinese products after finding that some Chinese manufacturers had misused the "Conformité Européenne" and "China export" marks. As a result, all EU countries had to conduct rigid inspections of Chinese exports as a response to the EU Commission's call for a rectifying customs check.

Table 3.4 World Bank Governance Quality Indicators

	New EU Members		**Old EU Members**			
	Mean	SE	Mean	SE	T-test	Difference
Control of Corruption	0.31	0.02	1.52	0.02	-34.21***	-1.21
Government Effectiveness	0.7	0.02	1.48	0.02	-28.45***	-0.78
Regulation Quality	0.95	0.01	1.43	0.01	-24.28***	-0.48
Stability	7.18	0.06	7.71	0.04	-7.6***	-0.53
Rule of Law	0.59	0.02	1.47	0.02	-32.65***	-0.88

We then split the full sample set into two geographic zones based on the host market's EU joining time, in order to investigate whether the economic development level, governance quality, and other national specific factors had affected Chinese MNEs' internationalization strategies. Table 3.5, covering the 15 'old' EU countries, explores their regional and national factors that may affect the presence of Chinese MNEs. Here we found that the main variables

(such as, regional market size and local intelligent workers) are consistent determinants of Chinese MNEs' location choice. Moreover, the coefficient of regional skilled labour force increased by 2.81 after the global financial crisis. The t-test score for the coefficient of the skilled labour variable between the two models is 0.55, which, according to Keith (2006) and Cohen (1988), confirms that the financial crisis significantly intensified Chinese MNEs' asset-seeking motive.

Table 3.5 Chinese WOS located in Senior EU Members

	Before Crisis	**After Crisis**
Region Level		
R_GDP	0.81(0.14) ***	0.94(0.11)***
R_Unemploy%	2.14(3.75)	1.19(2.78)
R_TechHR%	17.03(4.19) ***	19.84(2.84)***
R_Capital	0.29(0.37)	-0.06(0.23)
Country Level		
N_Culture	-0.90(0.38)**	-0.81(0.46)***
N_Stability	-0.13(0.10)	-0.07(0.08)
N_TechExp	5.77(6.48)	20.32(9.40)***
Variance Components		
Unconditional Model	1.22	2.09
Nation-Level Only	0.79	1.53
Region-Level Only	0.52	0.88
Multilevel Model	0.35	0.64
Other Estimates		
Time Effects	Panel	Panel
LR Test vs. Nbinomial	25.43***	105.12***
Integration Points	7	7
Log Likelihood	-384.00	-688.57
Wald Chi2(0)	123.02***	214.61***
Observations	314	370

Region Group	78	78
Nation Group	15	15

Note: Standard errors are presented in parentheses.

***, ** and * indicate that the coefficient is significant at the 1%, 5% and 10% levels, respectively.

The other strategic asset variable, the export value of high-technology product in a given country's GDP, also becomes a significant determinant after the 2008 financial crisis. This reinforces the view that contemporary Chinese asset-seekers are "pragmatic in the sense that bringing back core research home need not necessarily increase their core competencies if the human capital and other capabilities in China are unable to add value to this core technology" (Ramasamy, Yeung, and Laforet, 2012, p. 47).

We then moved on to examine Chinese MNEs' location determinants in 12 newly joined EU countries. The subsample result, presented in Table 3.6 shows that market size has a monotonic positive influence, but that the strategic asset variable (regional skilled labour force) is not a significant determinant in the earlier period. This finding supports Hypothesis 1a, 1b and 2b.

Table 3.6 Chinese WOS located in New EU Members

	Before Crisis	**After Crisis**
Region Level		
R_GDP	1.28(0.53)**	0.96(0.46)**
R_Unemploy%	-5.25(4.63)***	-7.19(5.24)**
R_TechHR%	21.49(5.39)	14.71(5.26)***
R_Capital	-1.72(0.72)**	-0.94(0.80)
Country Level		
N_Culture	0.26(0.55)	0.16(0.73)
N_Stability	0.11(0.16)	-0.11(0.22)
N_TechExp	4.69(6.61)	-5.05(10.47)

Variance Components		
Unconditional Model	1.86	3.75
Nation-Level Only	1.74	3.13
Region-Level Only	1.35	2.67
Multilevel Model	1.32	2.34
Other Estimates		
Time Effects	Panel	Panel
LR Test vs. Nbinomial	10.88***	44.62***
Integration Points	7	7
Log Likelihood	-174.24	-195.76
Wald Chi2(0)	85.25***	80.49***
Observations	174	180
Region Group	36	36
Nation Group	12	12

Note: Standard errors are presented in parentheses.

***, ** and * indicate that the coefficient is significant at the 1%, 5% and 10% levels, respectively.

Interestingly, Chinese MNEs' location choice is found to be negatively associated with the regional unemployment rate over the two time periods and, moreover, we also found that the financial crisis had a moderate effect on the employment-related variable. The weakening influence of the unemployment rate implies that Chinese MNEs may increasingly use local recruitment to reinforce their control over their subsidiaries in the new EU countries. Thus, they are able to further exploit the host country's location advantage in their comparatively low labour cost, while benefiting from the free-trade agreement with the EU. These two factors enable Chinese firms to reduce exorbitant import duty by building local assembly factories; to respond promptly to customers' needs by establishing a foreign customer service and logistics centre, and to increase sales by hiring local marketing staff.

3.5 Conclusion

This study is one of the few attempts to systematically investigate EMNEs' internationalization strategies in a developed economic entity, and makes a number of theoretical and empirical contributions by filling the research gap with regard to the influence of the global financial crisis. The study examines EMNEs' institution-escaping and asset-exploration motives, and the applicability of using a firm-level database and the MLM approach to study Chinese MNEs' internationalization behaviors.

By integrating Dunning's conventional eclectic model in conjunction with emerging EMNE theoretical justifications, such as, strategic asset-seeking (Rui and Yip, 2008; Luo and Tung, 2007) and institution escaping (Khanna and Palepu, 2006; Deng, 2009), we developed two main hypotheses specifically concerning Chinese MNEs' cross-border expansion motives in the European Union. These are market-seeking, strategic asset-seeking, and institution escaping.

Based on the empirical analysis of 4,500 Chinese MNEs across 114 regions in 27 EU nations during the period 2004-2013, we find a convincing result for the impact of market size on Chinese MNEs' investment preference, which indicates that the exploration of market demand has been a consistent and important internationalization motive for Chinese MNEs. With regard to the strategic asset-seeking motive, we confirm that the level of relational assets situated within the local market in the form of a skilled labour force and the export value of high technology products, is an important determinant for Chinese MNEs' location choice. This finding strongly supports the strategic asset-seeking supposition found in a large number of

prior qualitative studies (Deng, 2007, 2009; Luo and Tung, 2007; Rui and Yip, 2008). Moreover, we find that the financial crisis has an amplification effect on Chinese MNEs' asset-seeking motive, especially for firms operating in the more developed EU economies. This reinforces the view that the 2008 financial crisis has generated an important opportunity for Chinese firms to conduct strategic asset-seeking investment in the developed economies (Yang and Stolenberg, 2014; Anderson and Sutherland, 2015). Due to China's isolation from the global financial market, Chinese firms suffered less from the 2008 credit crunch (McAllister and Sauvant, 2013) than did their developed economy counterparts. Consequently, they could leverage governmental financial support and the financial resources accumulated over the last decades to conduct aggressive and active acquisitions. Furthermore, the collapse in EU and US's credit and banking system are highly likely to intensify Chinese MNEs' asset-seeking ambitions because developed market enterprises are facing sever problems such as, cash constraints, default payment and asset devaluation.

3.6 Appendix

Appendix 3.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Firms	1,140	2.989474	8.704488	0	102
R_GDP	1,081	10.84013	1.307949	6.928538	13.35554
R_Unemploy%	1,103	0.0912874	0.0517723	0.02	0.35

R_TechHR%	1,118	0.1799911	0.0567589	0	0.36
N_Culture	1,140	3.391053	0.9912491	1.6	5.33
N_Stability	1,140	7.548667	1.13669	4.04	10.46
N_TechExp	1,140	9.598952	1.834321	3.016386	12.18067

Appendix 3.2 Pearson's Correlation Coefficient

	Firms	R_GDP	R_Unemploy%	R_TechHR%	N_Culture	N_Stability	N_TechExp
Firms	1						
R_GDP	0.3087	1					
R_Unemploy%	-0.1267	-0.1532	1				
R_TechHR%	0.3104	0.4405	-0.4462	1			
N_Culture	0.0569	0.4849	-0.3075	0.3947	1		
N_Stability	-0.0417	0.1447	-0.2697	0.1155	0.0886	1	
N_TechExp	0.238	0.6588	-0.1569	0.4415	0.4574	0.1008	1

note: categorical and dummy variables are not included

Chapter Four: The Impact of Outward FDI on the Performance of Emerging Economy MNEs: Evidence from Chinese Listed Firms in the Manufacturing Sector

4.1 Introduction

The recent surge in China's outward foreign direct investment (OFDI) shows the country's deepening integration with the global economy, which has attracted intense interest in exploring the rationale behind Chinese MNEs' increasing use of internationalization (Buckley et al., 2007; Cheung and Qian, 2008; Luo, Xue, and Han, 2010; Rugman and Li, 2007; Kolstad

and Wiig, 2012; Gaur, Kumar, and Singh, 2014; Xia, Ma, Lu, and Yiu, 2014). In contrast, less attention has been paid to the other important stream of MNE internationalization, namely, whether cross-border expansion can benefit firms in terms of revenue or profitability growth. Contractor et al (2007) argue that extant studies on the multinationality-performance (henceforth MP) relationship has been "limited to multinationals from developed economies" (2007, p.402), hence our understanding of how international diversification can affect emerging economy firms' performance still remains very incomplete (Chen and Tang, 2014; Edamura et al., 2014).

Empirical analyses based on the observation of developed economy firms generally produce a positive linear or inverted U-shape MP relationship (Han et al., 1998; Vernon, 1971; Grant, 1987; Daniels and Bracker, 1989; Ramaswamy, 1995), because the proprietary assets owned by competitive multinational enterprises (MNEs) enable them to take advantage of the enlarged business territory through spreading overheads (Tallman and Li, 1996), accessing more customers and cheaper materials (Porter, 1990), extending the product life cycle (Vernon, 1966), and arbitraging in different economic systems (Aliber, 1983).

However, the applicability of the conventional model in explaining the internationalization strategies and patterns of emerging economy MNEs (EMNEs) is often challenged, as EMNEs are fundamentally different from their developed country counterparts in aspects such as OFDI motives, the level of firm-level advantages, and market constraints (Wang, Hong, Kafouros, and Boateng, 2012; Buckley et al., 2007; Liu, Buck, and Shu, 2005; Anderson and Sutherland, 2015). Therefore, the MP relationship among Chinese firms is highly likely to be different from that of their developed economy counterparts.

EMNEs generally do not possess proprietary advantages that guarantee a competitive position in world markets (Ramamurti, 2008; Meyer and Xia, 2012), instead they have been increasingly using international expansion as a means of compensating for competitive disadvantage, or as a tool for bypassing trade barriers (Luo and Tung, 2007; Rui and Yip, 2008; Cuervo-Cazurra and Genc, 2008). Due to the liability of foreignness and lack of managerial capabilities, newly internationalized EMNEs are argued to be less able to realize multinationality benefits at the early internationalization stage (Chari and Shaikh, 2017; Khanna, Palepu and Sinha, 2005; Contractor et al., 2007). The challenge of engaging in international expansion is also exacerbated by the additional operation costs arising from distant coordination, information overload, and adaptation into new and unfamiliar markets (Zaheer and Mosakowski, 1997; Ruigrok and Wagner, 2002). Therefore, EMNEs' costs of internationalisation may offset or even outweigh the addition revenue generated from geographic diversification. Nevertheless these newly internationalised firms can alter this situation through knowledge accumulation, process improvement and resource reallocation, the progress would be gradual and time consuming as it requires firms to iteratively learn, practice, and adjust. As a result, Chinese MNEs' MP relationship is more likely to follow an imbalanced U-shaped curve that has a long, downward arc (Gomes and Ramaswamy, 1999; Ruigrok and Wagner, 2002; Contractor et al., 2007).

The sigmoid-shaped or three-stage MP relationship theory suggests that in the first stage of internalization, the liability of newness combined with expensive start-up costs can cause a diminution in the firm's performance, impact upon areas such as asset utilization efficiency, management effectiveness and operation efficiency. However, a second stage of geographic

diversification can lead to a bounce-back in profitability because the knowledge accumulated from prior activities and the reduced overheads-per-nation will enhance the firm's ability to exploit ownership and locational advantages. The third stage occurs where growth stagnates, up to the point when the cost of further relocation and management of business activities exceeds the benefit gained from continuous internationalization (Contractor et al., 2003; Lu and Beamish, 2004; Contractor et al., 2007).

In the past two decades, more than 100 top journal studies have been published attempting to unravel the relationship between multinationality and firm performance. These studies have provided mixed and inconsistent findings (Hennart, 2007). From reviewing a number of critical studies, we attribute the inconclusive results presented in the extant MP relationship literature to the following reasons: Hennart (2007) argues that scholars have used a diversity of theories to support their contention, but most of the scholars have not "delved on possible weaknesses in theoretical underpinnings" (p.424). Elango and Sethi (2007) have mooted that many empirical researchers did not include appropriate control variables, and suggest that future analysis should consider industry and firm effects that can improve the robustness of the findings. Followers of the three-stage theory think the reason a horizontal sigmoid-shaped MP relationship is underestimated is due to "incomplete theorization about the full range of benefits and costs" (Lu and Beamish, 2004, p.59), and a lack of time-series data (Contractor et al., 2003).

The meta-analysis conducted by Driffield and Yang (2010) investigated 54 studies with regard to the methodological heterogeneity that besets most of the MP relationship studies. By specifically focusing on issues such as publication bias, financial crisis, survey year, and so on,

they find that the firm's country of origin, the measure of multinationality, and the size distribution of the sample can alter the estimated rate of return and the shape of the MP relationship. Using this insight, we have controlled for several factors related to the research setting, such as time frame (i.e., after the financial crisis), internationalization measures, and firm size, to avoid inconsistent research outcomes caused by heterogeneity.

Our study aims to enrich the understanding of how internationalization can affect EMNEs' performance by re-evaluating the applicability of the three-stage MP relationship hypothesis to the case of Chinese manufacturers (Contactor et al., 2003; Lu and Beamish, 2004). Given the importance of theoretical justifications and longitudinal data (Hennart, 2007; Contractor et al., 2003), we conceptualize Chinese firms' MP relationship through the lens of the organizational learning theory, the resource-based view, and the transaction cost perspective. Our empirical test is based on the 7-year (2009-2015) OFDI and financial records of 757 listed Chinese manufacturing firms. Since regression-based models can provide more reliable analysis outcomes for MP relationship study (Driffield and Yang, 2010), we apply pooled ordinary least squares (OLS), using within and between effects estimators, to explore the individual specific effects of an entity on Chinese firms' MP relationships. We have also compared the two estimators in order to decide whether the time invariant characteristics like location, ownership structure, and industry effects, should be included or omitted in our model.

The majority of previous studies have produced an overall positive MP relationship over a certain period of time, highlighting the benefits of international expansion for improving firms' performance. By contrast, this study finds that the profitability of Chinese manufactures is negatively associated with the increasing degree of internationalization, which offers an

empirical basis for the discussion of the difference between traditional asset-exploitation developed economy MNEs and their emerging economy counterparts. This finding is important for exploring the competition strategy of recently rising Chinese MNEs on the global stage as it reveals Chinese firms' determination to achieve greater international influence at the cost of sacrificing short-term gains.

4.2 Literature Review and Hypotheses Development

4.2.1 Curvilinear theory of international expansion

Stage 1: Transaction cost theory in the study of international business addresses the additional costs of organizing business activities that are incurred when a firm establishes itself in different locations, cultures, and institutions (Hymer, 1976; Hennart, 1988; Anderson and Gatignon, 1986). An unfamiliar foreign economic environment brings about all kinds of difficulties, such as searching for product and price opportunities, screening and monitoring foreign partners, negotiating conflicting interests between parties, etc. The raised level of information asymmetry drives up firms' costs of carrying out transactions (Williamson, 1985; Hill, 1990). The recent development of transaction cost theory necessitates encompassing institutional and cultural blocks, argues that environmental externalities have the potential to affect firms' property rights, their managerial costs, and their evaluation of the internal and external uncertainties in their target markets (Brouthers and Brouthers, 2000).

The other insight of transaction cost theory emphasizes the comparative efficiency between the hierarchy (firm) and prices (market) system of organizing the mobility of products

or production factors (Hennart, 1993). Its basic principle suggests that firms can overcome the drawbacks of contractual agreements (e.g. contracting hazards and lack of output measurement) by converting external transaction costs to internal coordination costs through internalizing intermediate markets (Williamson, 1985). Therefore, in the context of MNEs, firms should strengthen their control over foreign affiliates up to the point where further internalization costs outweigh the benefits (Buckley and Casson, 1976).

Drawing on transaction cost and internalization theory (TCI), many studies have identified an incremental process to MNE geographic diversification that is closely associated with geographic and psychic proximity, with firms dipping their toes into international expansion by moving into countries that are geographically or culturally close to the home country. The effect of foreignness can be diminished by management's experience and knowledge (Johanson and Vahlne, 1977; Davidson, 1980; Veugelers, 1991). Thus, they are able to ameliorate the degree to which their governance costs increase, for example, greater geographic distance can increase coordination costs; cultural differences increase the difficulty of collecting information; and a lesser degree of economic integration is linked to increased cost of trade, political resistance, and the liability of newness (Hennart, 1991).

The same argument has been addressed in MP relationship studies. Qian (1998) adds that the large cost of learning about new markets, alongside expensive sunk costs such as plant and machinery, would entail a heavy governance burden that cannot be distributed when a firm starts to internationalize, resulting in high overheads per country. In the context of the emerging economies, several studies find that EMNEs normally do not follow the staged pathway for minimizing transaction and learning costs (Chari and Shaikh, 2016; Anderson and Sutherland,

2015; Child and Rodrigues, 2005; Mathews, 2006; Deng, 2009). Instead they prefer to perform a "rapid and radical" leapfrog into "highly developed markets" (Luo and Tung, 2007, p.494-495) or psychically distant countries (Deng, 2009), which can amplify the challenge for inexperienced firms trying to earn legitimacy aboard. Therefore, the up-front costs of EMNEs are less likely to be recouped at the initial stage.

Stage 2: Drawing on organizational learning theory, Ruigrok and Warner (2003) argue that the negative effect of multinationality will diminish with the knowledge accumulated from intra- or inter-organizational adaptation, routines, and practices, in turn improving the whole firm's efficiency and proficiency in certain business activities. Further, a variety of empirical studies (Contractor et al., 2007; Ruigrok and Warner, 2003; Gomes and Ramaswamy, 1999) find that if the firm continues to deepen its integration with foreign markets after an initial loss, the "optimal" internationalization will arise, providing relief from the overheads burden. In this sense, the knowledge of distant psychic frameworks, institutions, market conditions, and acquired affiliates' routines, are considered to be a prerequisite to successfully internalizing the external market and avoiding the uncertainties caused by institutional and psychic distance (Doz, Santos, and Williamson, 2001; Tallman and Li, 1996; Hofstede, 1980). Once a firm is ready to assimilate the host market's locational advantages, it can reduce the fixed costs burden by utilizing the resources it owns, and can access an extended geographic boundary (Kogut, 1985).

In the stage of optimal internationalization, continuous international diversification can benefit both resource- and market-seeking EMNEs. Arguably lacking proprietary firm-level advantages, the majority of EMNEs are concentrated at the low end of the value chain, where

they rely on the home market's country-specific advantages, such as demographic dividends and discriminatory access to cheap resources, to compete with global competitors (Bhaumik, Driffield, and Zhou, 2016). For firms specializing in standardized products, continuous international diversification can increase the possibility of establishing a competitive position in the market, as the enlarged business territory enables firms to reach more customers, scan and learn from leading competitors and developed strategic factor markets, increase production, and spread central overheads (Hijzen et al., 2011; Tallman and Li, 1996; Herzer, 2012).

Reverse technology benefits may occur when firms have developed a certain level of absorptive capacity from R&D and OFDI experience (Nair, Demirbag, and Mellahi, 2016). OFDI is the most effective channel of transferring advanced knowledge (Wesson, 2004). It helps the parent company gain complete access to the acquired firms' human capital, reputation, distribution channels, good will, and patents (Chung and Alcacer, 2002; Deng, 2009). Successful integration with foreign affiliates can enhance the parent firm's organizational learning by sharing information and combining firm-specific advantages within the hierarchy. This can speed up the development of firm-level competitiveness (Vermeulen and Barkema, 2001), and ultimately help the firm move up the value chain (Dierickx and Cool, 1989).

Stage 3: MP relationship scholars argue that continuously enlarging the scale of internationalization will not always benefit the firm's performance (Hennart, 2007; Gomes and Ramaswamy, 1999; Contractor et al., 2007; Lu and Beamish, 2004). The exploitation of resources and knowledge accumulated from FDI in the second stage leads firms to surpass the point of minimum efficient scale (MES) where the average cost of output or overheads per nation are increasingly falling, thereafter the further expansion results in a rise of the

complexity of information that is beyond firms' existing capabilities, the incurred incremental costs depicts a negative slope at the late stage of internationalization (Hennart, 2007; Contractor et al., 2003). The late detrimental effects of over-expansion have several causes, such as, serving excessive markets, localizing and coordinating with different organizational and institutional frameworks, coping with unfamiliar regulative frameworks, etc. (Sunderam and Black, 1992; Contractor et al., 2007; Lu and Beamish, 2004). As a result, increased transaction cost and managerial constraints will gradually offset internationalization benefits (Gomes and Ramaswamy, 1999; Hitt et al., 1997).

Hypothesis 1: A sigmoid-shape relationship exists between the scale of multinationality and EMNEs' financial performance.

4.2.2 Interaction Effects of Absorptive Capacity and Multinationality

One key feature that distinguishes successful internationalized firms from the failures is the firm's absorptive capacity (Bhaumik and Driffield, 2011; Deng, 2010). Bhaumik, Driffield and Zhou (2016) posit that although firms from emerging economies can all enjoy local scale economies and cheap labour, their performance (measured by productivity) is determined by: 1) their ability to operate within opaque institutions; and 2) their ability to assimilate and imitate externally sourced information and technology. In a theory that is similar to the conventional resource-based theory, scholars argue that firms equipped with strong tacit knowledge can outperform competitors because they can use collective knowledge and efficient learning

mechanisms to cope with the challenges of internationalization (Amit and Schoemaker, 1993; Vermeulen and Barkema, 2001; Yeoh, 2004; Zahra and George, 2002; Kogut and Zander, 1992; Cohen and Levinthal, 1990).

OFDI provides EMNEs with access to developed strategic factor markets and to the valuable resources bounded in these markets, but this access does not automatically lead to enhanced performance. Knowledge-seekers are constrained by the specification and complexity of new strategic resources (Amit and Schoemaker, 1993), the difference in the knowledge transferor's culture (Child, Falkner, and Pitkethly, 2001), and an ineffective execution of strategy (Zollo and Singh, 2004). Based on case studies and the semi-structured interviews of two leading Chinese MNEs (Lenovo and TCL), Deng (2010) reports that the decisive factor for successful OFDI is the level of absorptive capacity the parent firm has, which are constructed at multiple dimensions: 1) the ability to identity and understand; 2) the ability to assimilate and integrate; and 3) the ability to transform and apply.

The possession of a higher level of absorptive capacity, such as FDI experience and R&D intensity, can help firms to design an effective strategy for interacting with distinctive organizational structures and institutional frameworks (Muehlfeld, Rao Sahib, and Van, 2012). Efficient integration makes it possible to develop sustainable competitiveness via the assimilation of technology and knowledge, thereby improving the company's product and organization, which will in turn facilitate the firm's internationalization. Given the importance of absorptive capacity in facilitating the learning of externally sourced information, hypothesis 2 is developed as:

Hypothesis 2: The possession of strong R&D intensity amplifies the positive influence of geographical diversification on firms' profitability until further diversification costs outweigh benefits, while it diminishes the negative influence of under- or over-internationalization.

4.3 Research Design

4.3.1 Research Setting

This study investigates the relationship between Chinese firms' foreign expansions and their profitability indicators. According to Buckley et al (2007), China is a "particularly good test case for the general theory of FDI as it presents many special conditions that are rarely encountered in a single country" (p. 500). In contrast to more economically developed economies (including South Korea and Japan), the expansion of China's OFDI has taken place at a much later period. Databases like UNCTAD and MOFCOM suggest that the rapid expansion period of China's OFDI arose during the 2007-2008 financial crisis. Using Chinese firms' recent data is logical for testing the main hypothesis of this study, since the model requires sufficient OFDI data to study the phased influence posed by international expansion.

With regard to other research setting issues discussed above, we selected all 757 Chinese listed manufacturing companies, and controlled for firm size and industry effects. These firms are from four of the most representative manufacturing industries in China: chemical materials; telecommunication equipment and components; electric machinery; and pharmaceutical products (Buckley et al., 2008). There are 767 listed firms from the four industries, and we

excluded 10 of them that had missing data. The common method of measuring the firm's degree of internationalization is to use either an assets based, or sales based approach to generate a ratio of home activity to foreign activity (Hennart, 2007; Driffield and Yang, 2010). In this study, we adopted a similar method to that used by Contractor et al (2003), which is based on both sales- and size-related indicators that can "capture the 'depth' of internationalization" (p.11).

We obtained firm-level data directly from selected firms' annual reports, which provide detailed information ranging from performance to ownership structure. The main source of OFDI data is China's State Administration of Foreign Exchange (SAFE). The strict control on capital movement in China enables SAFE to monitor and record all FDI validated by the Chinese government; thus the data used in this study accurately show the time and amount of selected firms' OFDI.

4.3.2 Model

Driffield and Yang (2010) suggest that regression-based estimators are more reliable for studying the MP relationship because ANOVA and other related techniques cannot take account of cross-correlations between internationalization measures and other variables.

We first tested our hypothesis using the pooled regression model. This technique is also adopted to analyze panel data by Contractor and his colleagues in his 2003 and 2007 MP studies. The population-averaged model assumes that all the covariates included in our analysis are exogenous with uncorrelated errors (covariance between each equals zero). In other words, each observation is independent of the others, so that regression parameters will not change

over time or across entities. Drawing on the study of Contractor et al (2003), the three-stage or cubic regression model is constructed as:

Equation 1:

$$Y_{it} = \alpha + \beta_1(DOI_{it}) + \beta_2(DOI_{it})^2 + \beta_3(DOI_{it})^3 + \beta_4 R\&D_{it} + \beta_5(DOI_{it} * R\&D_{it}) + \gamma Controls_{it} + u_{it}$$

where Y_{it} is our dependent variable, the profitability indicators (ROA and ROS). The first-, second- and third-order term of degree of internationalization (DOI) measures the effects of internationalization at three different stages. The intensity of R&D and its interaction term with multinationality are included based on Hypothesis 2. We also include a number of variables in order to control the effects of ownership structure, firm size and industry.

Since the pooled OLS model would not hold if the individual specific characteristics (such as the corporate culture, region, education level of top management, etc.) have an impact on the covariates or the outcome variables, we have also applied the fixed effects model to estimate the coefficients. The fixed effects model assumes that "if the unobserved variable does not change over time, then any changes in the dependent variable must be due to influences other than fixed characteristics" (Stock and Watson, 2003, p.289). Using the fixed effects model omits the effect of time-invariant factors, thus the model only focuses on the net effect of the predictor variables. As the following equation shows, the within-unit differences from every observation on each entity (each firm) are subtracted in the transformation process.

Equation 2:

$$\widehat{Y_{it}} = Y - \overline{Y_i} = \left(X'_{it} - \overline{X'_i}\right)\beta + (u_{it} - \overline{u_i}) = \widehat{X'_{it}}\beta + \widehat{u_{it}}$$

Although the fixed effects model is more sophisticated in handling unobserved

heterogeneity, it is "not a panacea for all sources of endogeneity" (McManus, 2011, p.19). The random effects estimator is used when the variation between entities is assumed to be uncorrelated with the predictors. Since the random effects model takes account of the influence of time invariant characteristics, its error term is composed of both with- and between-entity component, as Equation 3 shows:

Equation 3:

$$Y_{it} = \alpha + X'_{it}\beta + u_{it} + \varepsilon_{it}$$

If the assumption of the random effects estimator holds, the fixed effects model is not appropriate for analyzing our data because the inferences are incorrect. To decide which estimator is more efficient, the Hausman test is adopted, which gives the null hypothesis that the unique errors are correlated with the predictors of the model (Baltagi, 1995). If the test outcome rejects the null hypothesis, we should use the fixed effects estimator.

4.3.3 Control Variables

Control variables have been used in various studies to control for the influence of other firm-level factors, such as the level of technology, firm age or FDI experience, parent firm location, sector effect, and so on (Contractor et al., 2003; Buckley et al., 1984; Tallman and Li, 1996; Gomes and Ramaswamy, 1999; Lu and Beamish, 2004). In this study, the three control variables that are presumed to affect Chinese firm's financial performance are industry effects, firm size (natural logarithm of total assets), and state ownership (1=state owned, 0=private owned). Firm size has frequently been used in MP relationship studies as a measure of economies of scale, a factor that has significant influence on the firm's financial performance

(Contractor et al., 2003; 2007).

Ownership structure is found to play an important role in Chinese companies' OFDI. Related studies find that state-owned firms in China have more opportunities to obtain preferential access to valuable assets, but their profitability is normally lower than their privately owned counterparts (Qi, Wu and Zhang, 2000; Xu and Wang, 1999; Sun and Tong, 2003). Li, Cai and Lin (1998) recognize state ownership as one of the biggest issues in China's economic transition, because the absence of market competition and effective supervision is regarded as the root of corporate inefficiency in conventional corporate governance theory (Boardman and Vining, 1989).

All variables used in this study are given in Table 4.1,

Table 4.1

The list of variables

Variable	Proxy	Theoretical Justification	Data Source
Dependent Variable			
Return on Assets	ROA	Profitability	Annual Report
Return on Sales	ROS	Profitability	Annual Report
Independent Variables			
DOI	Average of Foreign Sales/Total Sales and OFDI Flows/Invested Capital	Test for Linear Relationship (H1)	MOFCOM and SAFE
DOI_2	Quadratic Term of DOI	Test for U-shape Relationship (H1)	MOFCOM and SAFE
DOI_3	Cubic Term of DOI	Test for Sigmoid-Shape Relationship (H1)	MOFCOM and SAFE

R&D	R&D Intensity (R&D investments to Revenue)	Absorptive Capacity (H2)	Annual Report
DOI1*RD	Interaction of DOI and R&D at under-expansion stage	The moderating role of absorptive capacity for profitability at under-expansion stage (H2)	MOFCOM, SAFE, and Annual Report
DOI2*RD	Interaction of DOI and R&D at ideal-expansion stage	The moderating role of absorptive capacity for profitability at ideal-expansion stage (H2)	MOFCOM, SAFE, and Annual Report
DOI3*RD	Interaction of DOI and R&D at over-expansion stage	The moderating role of absorptive capacity for profitability at over-expansion stage (H2)	MOFCOM, SAFE, and Annual Report
Total Assets	Firm Size	Control Variable (Contractor et al, 2003, 2007; Lu and Bemish, 2004)	Annual Report
State Owner	Dummy, ownership effect	Control Variable (Gao, 1996; Qi et al., 2000; Wang and Yung, 2011)	Annual Report
Industry	Dummy. Industry effect	Control Variable (Contractor et al, 2003; 2007)	Annual Report

4.4 Results

At the date of writing, China's stock market has approximately 3,000 firms listed with their shares on the combined Shanghai and Shenzhen Stock Exchanges. The data used in this study covers all 757 firms from four of the largest Chinese manufacturing industries: chemical materials; computer and telecommunication equipment; electric machinery; and pharmaceutical products. As Table 4.2 shows, in 2009 only 25% of them (178 out of 704) had undertaken OFDI. This number grows to 60% after six years, and by then at least 50% of firms in each of the four industry sectors have an OFDI record.

Table 4.2 Number of total firms and (OFDI firms) from 2009 to 2015

Year/ Industry	Total	Chemical Materials	Telecommunication Equipment	Electric Machinery	Pharmaceutical Products
2009	704 (178)	174 (41)	218 (50)	168 (35)	144 (52)
2010	705 (196)	175 (47)	219 (50)	167 (40)	144 (59)
2011	757 (196)	186 (47)	234 (50)	181 (40)	156 (59)
2012	757 (255)	186 (60)	234 (65)	181 (58)	156 (72)
2013	757 (315)	186 (73)	234 (85)	181 (75)	156 (82)
2014	757 (382)	186 (86)	234 (117)	181 (91)	156 (88)
2015	757 (457)	186 (99)	234 (136)	181 (109)	156 (113)

According to recent Chinese MNE studies (Anderson and Sutherland, 2015; Yang and Stoltenberg, 2014; Luo et al., 2010), the number of Chinese MNEs grew exponentially after the 2007-2008 financial crisis, driven by the collapse in the valuation of the developed economy firms (Anderson and Sutherland, 2015). In this respect, our data is in accord with the recent trend of Chinese OFDI development.

Table 4.3 shows relevant t-test outcomes of key characteristics between OFDI and non-OFDI firms. OFDI firms possess a higher level of R&D intensity, a larger number of employees, greater total assets, and higher foreign sales and revenue, but their profitability indicator - the return on assets - is smaller than that of non-OFDI counterparts (though return on sales between the two groups is very similar). This may imply that the assets recently acquired by OFDI firms pose a significant challenge of assimilation. Since such investment is unlikely to be recouped until the first stage of augmentation has completed, newly

internationalized Chinese firms would expect a downturn in their profitability.

Table 4.3 T-test between ODI and non-ODI

	ODI Firms	Non-ODI	Difference	T-Test	
Size					
Employees	4750.65	1917.53	2833.12	14.19	***
ln (R&D)	17.57	16.95	0.61	15.23	**
ln (Asset)	21.84	20.81	1.03	34.15	**
ln (FDI)	9.14	0.00	9.14	2.73	***
Debt Ratio	0.41	0.40	0.02	1.14	
Revenue					
Revenue	21.26	20.34	0.91	13.35	***
Foreign Sales	10.39	3.83	6.56	55.47	***
Profitability					
ROA	0.05	0.09	-0.04	-13.44	***
ROS	0.03	0.03	0.00	-0.13	

Given the importance of ownership effects on firm performance, we contrast these key indicators between state- and privately-owned enterprises, as shown in Table 4.4. Unsurprisingly, the outcome shows that the level of SOEs' annual FDI flows and assets is much higher, which is largely funded by money borrowed externally (debt ratio is measured by total debt/total assets). As discussed in the last chapter, SOEs enjoy preferential access to public (or governmental) resources and funds, thus they have a higher propensity to leverage soft-budget loans to pursue large projects.

Table 4.4 T-test between SOE and POE

	SOE	POE	Difference	T-Test	
Size					
Employees	4463.00	2570.00	1893.00	9.07	***

ln (R&D)	17.39	17.15	0.23	5.35	**
ln (Asset)	21.74	21.03	0.71	21.70	**
ln (FDI)	9.21	5.86	3.35	12.86	***
Debt Ratio	0.51	0.37	0.14	1.45	***
Revenue					
Revenue	21.24	20.50	0.74	9.61	***
Foreign Sales	3.28	11.41	-8.14	-7.49	***
Profitability					
ROA	0.05	0.08	-0.04	-12.32	**
ROS	-0.02	0.06	-0.08	-1.43	***

Table 4.4 shows that state ownership is highly likely to have a negative influence on the firm's efficiency in organizing and leveraging the resources it owns, which is evidenced by the low profitability indicators in our dataset (both ROA and ROS). Although the annual OFDI flows of SOEs are higher, their foreign sales are 71.25% less than POEs, which may be attributed to the fact that resource-seeking investment accounts for the majority of SOEs' OFDI flows.

Table 4.5 presents the analysis outcome of pooled OLS, random effects and fixed effects models based on the full sample. Each model includes only multinationality measures and control variables in order to test the three-stage MP relationship hypothesis. The Breusch-Pagan Lagrange Multiplier (henceforth "LM") test is conducted to compare Contractor and his colleagues' pooled OLS model with the random effects model. The significant outcome rejects the supposition that there is no variance across Chinese firms, thus in this case, the random effects model is preferable to pooled OLS.

We then conducted the Hausman test, a simple method of selecting between the fixed or

random effects estimators (Johnson and DiNardo, 1997) on the same dataset, and the corresponding P values are statistically significant. This suggests that any changes in Chinese firms' ROA are not related to time-invariant characteristics such as ownership structure or industry effects, and we should use the fixed effects estimator to control these fixed factors.

Table 4.5 ROA- Base Model

ROA vs.	Pooled	ROA Random	ROA Fixed
DOI_1	-0.22***(0.04)	-0.18***(0.05)	-0.12**(0.05)
DOI_2	0.49*** (0.13)	0.35***(0.13)	0.21*(0.14)
DOI_3	-0.28***(0.09)	-0.20**(0.09)	-0.13(0.10)
Total Assets	-0.01***(0.13)	-0.02***(0.16)	-0.03***(0.00)
State Own	-0.03***(0.30)	-0.02***(0.49)	
Industry 2	0.02***(0.37)	0.02**(0.61)	
Industry 3	0.01**(0.39)	0.01*(0.66)	
Industry 4	0.05***(0.41)	0.05***(0.68)	
Time Effects	Fixed	Panel	Panel
R2	0.11	0.06 w/i	0.07 w/i
	0.10 adj	0.14 b/t	0.06 b/t
		0.09 oval	0.05 oval
F-test	43.58***	395.71(Wald)***	80.34***
Comparison		1122.31(BP LM)***	74.06(Hausman) ***
Observations	5,191	5,191	5,191

Note: ROA: return on assets; DOI_1, DOI_2, DOI_3: index, quadratic, and cubic term of degree of internationalization: Total Assets: natural logarithm of firms' total assets; State Own: ownership effect (1= state-owned enterprise, 0 = privately-owned enterprise); Industry 2: industry effect (1= telecommunication equipment, 0 = otherwise); Industry 3: industry effect (1= electric machinery, 0 = otherwise); Industry 4: industry effect (1= pharmaceutical products, 0 = otherwise); Industry 1 is chemical materials; Standard error are shown in parenthesis; *** p< 0.01; ** p< 0.05; * p< 0.10.

The results obtained from the fixed effects model shows that the coefficient signs of all multinationality measures are in accord with the three-stage hypothesis. Chinese manufactures in general will experience a down-up-down change in profitability during the process of geographic diversification, but the S-shaped curve is not evident in our study because the cubic

term of internationalization degree (DOI_3) is statistically insignificant. In another study on Indian firms' MP relationship, Contractor et al (2007) pointed out that the economic liberalization and internationalization in emerging economies generally occurred very late, thus the three-stage theory may not readily be applicable to EMNEs. We have encountered a similar situation as only a few Chinese MNEs have reached the over-internationalization stage (in our data, only 63 Chinese listed manufacturers' DOI exceeds 80%, accounting for a mere 8.3% of the full sample), this implies that the three-stage MP relationship in the context of contemporary Chinese firms may only exist in theory, because the majority of Chinese firms are still concentrated in the first-half of the U-shaped curve.

The coefficients of ownership structure and total assets are all significantly negative in Table 4.5 (except in the fixed effects model where the ownership dummy is excluded), showing that Chinese firms' profitability is inversely proportional to their firm size and state ownership. This finding is consistent with some EMNE scholars' proposition that firms from emerging economies have peculiar characteristics in terms of FDI motives and influences, because they are more likely to conduct non-profitable investments, aiming to achieve strategic development in the long run (Khanna et al., 2005; Rui and Yip, 2008).

Table 4.6 ROA- Interaction Model

ROA vs.	Base	Interaction
DOI_1	-0.06***(0.02)	-0.67***(0.19)
DOI_2	0.03*(0.02)	0.57***(0.20)
R&D	0.01***(0.00)	0.01***(0.00)
DOI1*RD		0.04***(0.01)
DOI2*RD		-0.03***(0.01)
Total Assets	-0.05***(0.13)	-0.05***(0.15)

R2	0.17 w/i	0.19 w/i
	0.12 b/t	0.12 b/t
	0.12 oval	0.13 oval
F-test	203.86***	138.35***
Hausman Test	193.61***	183.49***
Observations	4710	4710

Note: *** p< 0.01; ** p< 0.05; * p< 0.10.

Next we then dropped the cubic term to examine the two-phased effects of multinationality on 757 Chinese manufacturers' profitability, along with testing the moderating effects of absorptive capabilities (since Hausman test result rejected null hypothesis, we use the fixed-effect model to conduct our analysis). As shown in in Table 4.6, results obtained from the quadratic models confirm the U-shaped relationship between the degree of internationalization and return on assets for the whole sample drawn from four manufacturing industries.

According to the MP relationship curve obtained from the base model in Figure 4.1, Chinese firms' early internationalization sees an initial and long-term decline in profitability up to the inflection point where DOI is around 0.7, thereafter the further cross-border expansion realizes a positive return. Interestingly, as the fitted MP-relationship line depicts (the straight red line), the increasing degree of internationalization is ultimately detrimental to Chinese firms' performance, which contrasts with the prevailing viewpoints that are based on American, European, and other emerging economy firms (i.e. Contractor et al (2003; 2007), Lu and Beamish, 2004; Capar and Kotabe, 2003).

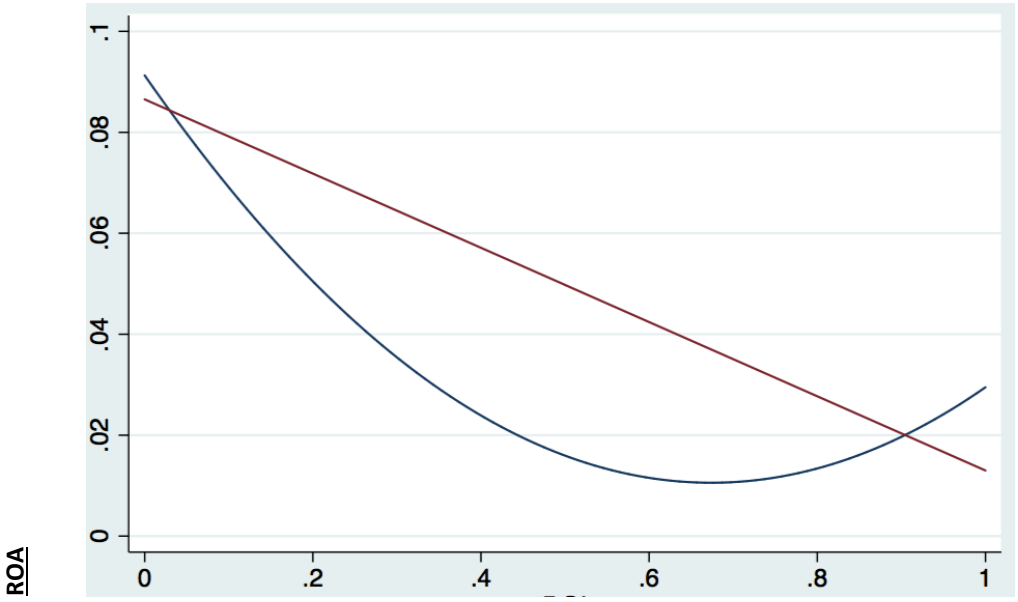

Figure 4.1. Fitted U-shaped curve of the ROA-DOI relationship: Base Model

We also find that the level of R&D intensity, which is closely associated with firms' ability to identify and understand strategic assets (Deng, 2010), can moderate the relationship between cross-border diversification and the efficiency of utilizing assets to create net profits. The more balanced U-shaped MP relationship in Figure 4.2 shows that R&D intensive firms can realize the expansion benefits at the earlier stage of internationalization than their counterparts, given the inflection point in the interaction model is 0.1 smaller than the one in the base model.

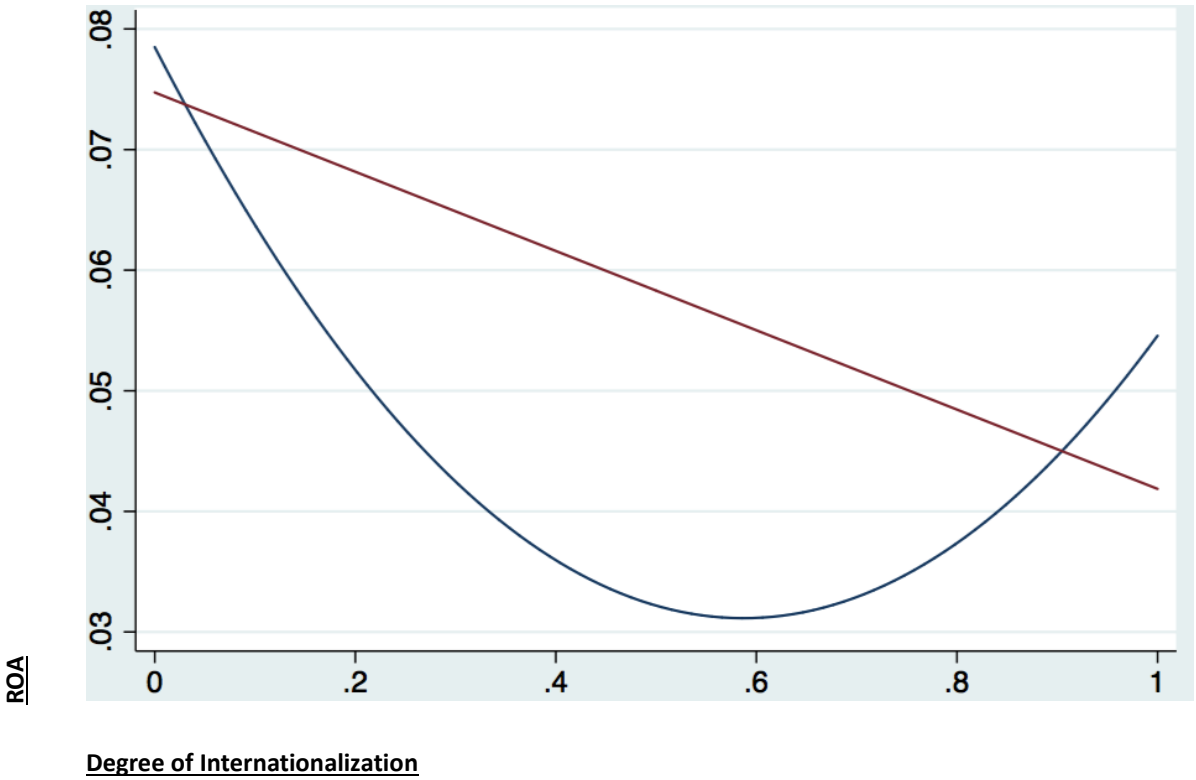

Figure 4.2. Fitted U-shaped curve of the ROA-DOI relationship: Interaction Model

Some industries may rely more on their level of technological assets, while others may be more capital-intensive. For instance, the product advantage of chemical material manufacturers and pharmaceutical factories is related to their R&D intensity. Components manufacturers in China, on the other hand, are normally concentrated at the low end of the value chain, and need low cost resources to sustain their cost advantage. Since the fixed effects model controls for time invariant characteristics, four separate regression tests were conducted. The corresponding results are presented in Table 4.7.

Table 4.7 ROA by Industry

ROA vs.	Chemical Base	Chemical Interact	Tele Base	Tele Interact
DOI_1	-0.05(0.04)	-0.55(0.46)	-0.05**(0.02)	-0.62**(0.30)
DOI_2	0.02(0.04)	0.32(0.48)	0.04*(0.03)	0.63*(0.33)
R&D	0.01***(0.00)	0.01*(0.00)	0.01***(0.00)	0.01***(0.00)
DOI1*RD		0.03(0.03)		0.03**(0.02)

DOI2*RD		-0.02(0.03)		-0.03*(0.02)
Total Assets	-0.05***(0.00)	-0.05***(0.00)	-0.05***(0.00)	-0.05***(0.00)
R2	0.14 w/i	0.14 w/i	0.26 w/i	0.27 w/i
	0.13 b/t	0.13 b/t	0.07 b/t	0.08 b/t
	0.12 oval	0.12 oval	0.11 oval	0.12 oval
F-test	50.53***	34.45***	86.54***	58.41***
Hausman Test	42.31***	39.99***	124.82***	118.75***
Observations	1497	1497	1157	1157
ROA vs.	**Machine Base**	**Machine Interact**	**Pharma Base**	**Pharma Interact**
DOI_1	-0.04(0.04)	-0.76***(0.37)	-0.10***(0.04)	-0.93**(0.40)
DOI_2	0.01(0.04)	0.77*(0.40)	0.06*(0.04)	0.90**(0.39)
R&D	0.01***(0.01)	0.01*** (0.28)	0.02***(0.00)	0.02***(0.00)
DOI1*RD		0.04**(0.02)		0.05**(0.02)
DOI2*RD		-0.04**(0.02)		-0.05**(0.02)
Total Assets	-0.05***(0.01)	-0.05***(0.44)	-0.06***(0.01)	-0.06***(0.01)
R2	0.15	0.15	0.23	0.23
	0.21	0.21	0.09	0.09
	0.18	0.18	0.12	0.13
F-test	39.81***	27.25***	61.37***	41.82***
Hausman Test	38.42***	37.85***	80.51***	76.42***
Observations	1078	1078	978	978

Note: *** p< 0.01; ** p< 0.05; * p< 0.10.

Apart from the chemical material industry, the results for the rest of the industries are consistent with the other models, which validate the hypothesis of the curvilinear MP relationship and the interaction effects of absorptive capability. The T-test outcome of the chemical material industry does not show any statistical evidence for the moderating role that multinationality plays in affecting firms' performance, although the signs of the DOI coefficients are consistent with our U-shaped hypothesis. This may be attributed to China's administrative governance over hazardous goods, such as military, chemical and radioactive

products, thus, these industries have not been fully privatized until now. China's opaque institutional framework necessitates a policy-oriented business model, therefore, the chemical material industry may act fundamentally differently from more general goods producers.

We then adopt the same method to evaluate how firms' return on sales responds to multinationality. The models in Table 4.8 present the pure effect of multinationality on Chinese firms' ROS by excluding the R&D intensity and its interaction variables. The Hausman test result failed to reject null hypothesis, which suggests that the random effects estimator is more efficient in studying the ROS-DOI relationship. The coefficients and T-test outcome for the first and second order term of DOI also supports the supposition that Chinese firms will experience a U-shaped change in the efficiency of managing variable costs during the internationalization process.

Table 4.8 ROS- Base Model

ROS vs.	**Pooled**	**Random**	**Fixed**
DOI_1	-0.73**(0.39)	-0.71**(0.40)	-0.19(0.55)
DOI_2	0.68**(0.40)	0.67*(0.40)	0.38(0.56)
Total Asset	0.11***(0.03)	0.11***(0.03)	0.04(0.05)
State Own	`-0.14**(0.06)	-0.14**(0.06)	
Industry 2	0.12*(0.07)	0.12* (0.08)	
Industry 3	0.11(0.08)	0.11(0.09)	
Industry 4	0.10(0.08)	0.09(0.09)	
Time Effects	Fixed	Panel	Panel
R2	0.05	0.00 w/i	0.01 w/i
	0.02 adj	0.03 b/t	0.00 b/t
		0.02 oval	0.01 oval
F-test	1.95**	21.65***(Wald)	1.12
Comparison		7.01***(BP LM)	6.06(Hausman)
Observations	5186	5186	5186

Note: *** p< 0.01; ** p< 0.05; * p< 0.10.

In Table 4.9 we use the random effects estimator to explore how firms' absorptive capability moderates the relationship between firms' standard operation efficiency and geographical diversification. Our results indicate that a higher level of R&D intensity improves Chinese firms' efficiency in producing core products or services, but does not enhance their coordination of cross-border activities. Coefficient signs of total assets and ownership structure are in line with previous findings. It seems that state ownership is a consistent factor hindering the development of Chinese firms' productivity.

Table 4.9 ROS- Interaction Model

ROS vs.	Base	Interaction
DOI_1	-0.21***(0.05)	-0.70(0.58)
DOI_2	0.19***(0.05)	0.67(0.60)
R&D	0.01**(0.00)	0.01*(0.00)
DOI1*RD		0.03(0.03)
DOI2*RD		-0.03(0.03)
Total Asset	-0.02***(0.01)	-0.05*** (0.01)
State Own	-0.05***(0.01)	-0.02***(0.01)
Industry 2	0.00(0.02)	0.00(0.02)
Industry 3	0.00(0.02)	0.00(0.02)
Industry 4	0.10***(0.02)	0.10***(0.02)
R2	0.00	0.00
	0.14	0.12
	0.07	0.06
Wald Test	116.78***	117.77***
Observations	4710	4710

Note: *** p< 0.01; ** p< 0.05; * p< 0.10.

4.5 Discussion

4.5.1 The Effects of Multinationality on Chinese Firms' Performance

Although the results estimated by both base and interaction models suggest that multinationality has curvilinear effects on Chinese firms' profitability (depicted as a U-shaped curve), the cubic term of internationalization degree is statistically insignificant, which rejects Hypothesis 1 regarding the three-stage MP relationship. In fact, our finding shows a U-shaped MP relationship among Chinese internationalized manufacturers, and this result is consistent with a substantial number of relevant studies such as Qian (1997), Ruigrok and Wagner (2002), and Capar and Kotabe (2002), suggesting that the initial geographic diversification normally sees a reduction in firms' return on assets and sales up to a point, after which further expansion produces a positive relationship between profitability and multinationality.

Driffield and Yang (2010) find that the U-shaped MP relationship is common among non-US MNEs, because the value of US firms' proprietary advantage is widely recognized on the global stage, whereas non-US firms generally lack the dominant capabilities or resources that can create economic value in different markets. Contractor et al (2007) explains that the different shapes of firms' MP relationship "appear seemingly inconsistent", but they "merely represent different stages of the three-stage theory rendered significant in the statistical analysis" (p.413). Since the majority of contemporary Chinese MNEs are new FDI entrants, they are at the very early stage of international expansion. Thus, the finding of a U-shaped MP curve is more representative of the status quo, and this also shows that Chinese firms are gradually

realizing the benefits of internationalization.

Another interesting finding of our study is that multinationality has an overall detrimental effect on Chinese firms' profitability. One reason for this could be the lack of adequate competitive advantages and internationalization experience on a global scale. Under the previous protected economic system, private Chinese enterprises and individual businesses were prohibited from investing overseas prior to 2003 (Buckley et al., 2007). The disconnection with the world economy deprived Chinese entrepreneurs of the opportunity to learn from foreign competitors, expose their brand, and access other strategic factor markets. Therefore, Chinese firms may need more time to build up the managerial capability that enables them to process overloaded information and coordinate cross-border operations.

Secondly, the asset-exploration strategy, which has been widely adopted by newly internationalised emerging economy firms, may impede their pursuit of profits, because asset-seeking EMNEs tend to sacrifice short-term gains in exchange for a competitive position in the market (Khanna, Palepu, and Sinha, 2005, p.15). Rui and Yip (2008) propose that fast-developing Chinese MNEs share a similar strategic intent with some post-war Japanese firms, in that they relentlessly pursue a far-sighted objective of becoming the global leader amid the increasing entrepreneurship and institutional incentives at home. A number of case studies based on successful Chinese telecom manufactures have shown that Chinese firms have increasingly used OFDI as a "Springboard" to achieve effective reconfiguration of their internal knowledge base (Deng, 2007, 2009, 2010; Luo and Tung, 2007; Rui and Yip, 2008). These theoretical insights of asset-exploration strategy have provided a rational justification of multinationality effects on Chinese firms' performance. Since the primary goal of Chinese

MNEs' internationalization is to concentrate their existing capital and labour on accumulating competitiveness enhancing assets, it is not surprising that the increasing level of geographic diversification brings little improvement to short-term gains.

4.5.2 Absorptive Capability

With regard to absorptive capability, our results indicate that Chinese firms with higher levels of R&D intensity generally perform better in terms of both ROA and ROS. Results from ROA interaction models suggest that the interaction effects between R&D intensity and the degree of internationalization are in line with Deng's (2010) proposition that the ability to identify and understand strategic assets can help firms benefit more from foreign direct investments. However, we did not find statistical evidence to support the interaction effects on firms' standard operational efficiency in ROS models.

Bhaumik et al (2016) argue that emerging economy firms' productivity growth is mainly driven by scale economies at the firm-level rather than by technological progress. They dominate the global market by volume production, not by value creation. Therefore, their core competitiveness is built upon how effectively they can access and leverage their country-specific advantages in the domestic market. This viewpoint does not deny the value of technological capability for EMNEs. Rather, it clarifies the core competitive advantage that they rely upon to compete against their developed economy counterparts, and emphasizes how urgently strategic assets are needed by those firms who wish to improve their position in the value chain. In the context of Chinese MNEs, increased geographical diversification helps them to access developed strategic markets and market demand, but these transitioning firms may

still lack the capability to cope with the correspondingly increased transaction costs. Thus, it seems plausible that Chinese firms' existing R&D cannot assist in efficiency enhancement during the internationalization process.

4.6 Conclusion

This paper extends extant MP literature to the study of emerging economy firms, by empirically testing the applicability of the three-stage MP relationship on a dataset that traces the development of 757 Chinese listed manufacturers (25.2% of total listed firms), from four of the largest industries in China, over a 7-year time frame (from 2009-2015). The finding of a U-shaped ROA- and ROS-DOI relationship highlights the downturn in firms' performance incurred by under-internationalization, although continuing expansion will reverse the diminishing effects. Chinese firms should carefully evaluate the impact of incurring prolonged costs when they plan to expand their business territory to inter-regional locations.

The possession of absorptive capability is found to moderate DOI effects on Chinese firms' performance. It is not surprising that firms with a higher level of R&D intensity can outperform other competitors in terms of profitability measures. Our study confirms the moderating role that R&D intensity plays in affecting firms' efficiency in utilizing internal assets during the internationalization process, which suggests that the possession of absorptive capability can effectively reduce the negative effects posed by under-internationalization at Stage 1. Moreover, it can sustain the optimal-internationalization benefits in the U-shaped MP relationship. This finding is in line with Deng's (2010) viewpoint that it is absorptive capability that distinguishes successful MNEs from failures, addressing the importance of EMNEs' ability

to recognize and assimilate FDI to manage acquired foreign assets.

We have also tested a number of control variables. Results from all models reveal that privately-owned firms are more likely to perform better on the global stage. The significant negative effects posed by state ownership in this regard is in line with the findings of the majority of studies on Chinese firm ownership structures (Qi, Wu and Zhang, 2000; Xu and Wang, 1999; Sun and Tong, 2003). Although state-owned enterprises (SOEs) may appear to benefit from stronger ties with central and provincial government, highly centralized governance appears to impair the efficiency of managing the firm and hampers its ability to respond to markets (Shleifer and Vishny, 1989). The vertical organizational structure of SOEs is a miniature of Chinese political organizations Top management are akin to provincial or municipal leaders, and they are not constrained by having to meet profitability targets, which are normally considered to be one of the most important performance indicators for listed companies.

4.7 Appendix

Appendix 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
DOI	5,194	0.1858335	0.3345001	0	1
DOI_2	5,194	0.1464028	0.3207521	0	1
DOI_3	5,194	0.1317951	0.3152918	0	1
R&D Intensity	4,710	0.8293813	0.0528289	0.3457859	1.027916
DOI1*RD	4,710	3.261958	5.957002	0	22.04924
DOI2*RD	4,710	2.578847	5.704776	0	22.04924
DOI3*RD	4,710	2.322497	5.605998	0	22.04924
Total Assets	5,191	21.29163	1.18019	17.04874	25.809

Appendix 4.2 Pearson's Correlation Coefficient

	DOI	DOI_2	DOI_3	R&D Intensity	DOI1*RD	DOI2*RD	DOI3*RD	Total Assets
DOI	1							
DOI_2	0.9749	1						
DOI_3	0.9463	0.9937	1					
R&D Intensity	0.0178	0.0293	0.0314	1				
DOI1*RD	0.9954	0.971	0.9426	0.0518	1			
DOI2*RD	0.9708	0.9959	0.9896	0.0555	0.9753	1		
DOI3*RD	0.9425	0.9897	0.9961	0.0547	0.9468	0.9937	1	a
Total Assets	0.2993	0.2484	0.2273	-0.0301	0.3254	0.2697	0.2464	1

Note: categorical and dummy variables are not included

Chapter Five: The Role of Outward FDI, Absorptive Capacity and Access to Finance in the Growth of Strategic Assets: Evidence from Chinese Public Manufacturers

5.1 Introduction

Increasing global competition and growing entrepreneurship in emerging economies have rendered strategic assets as an indispensable source of Chinese firms' survivability and performance (Rui and Yip, 2008). Unlike the conventional viewpoint that internationalization is driven by the exploitation of firm-specific advantages (Hymer, 1976; Cantwell, 1989), China's deepening integration with the global economy is often linked to the strategic intent to establish a competitive position in the world market, which suggests that internationalization can be used as a "springboard" to address firms' competitive disadvantages in technological resources, market accessibility and institutional constraints (Luo andtsTung, 2007; Rui and Yip, 2008; Child and Rodrigues, 2005; Deng, 2009).

According to the Ministry of Commerce of the People's Republic of China (MOFCOM), China's non-financial OFDI flow to developed economies increased from 2.81 billion USD in 2008 to 23.83 billion USD in 2014. The number of Chinese companies in the European Union, USA, Canada, Japan and Australia has also grown exponentially, by the end of 2015 there were more than 9,000 Chinese owned subsidiaries across these countries, accounting for 26.6% of all foreign affiliates (Orbis, 2016). The expanding presence of China's OFDI has led to a surge in academic literature on the strategy and performance of Chinese MNEs (Liu, 2007; Makino, Lau, and Yeh, 2002; Deng, 2009; Alon, Chang, and Fetscherin, 2009; Ramasamy, Yeung, and

Laforet, 2012; Alon and McIntyre, 2008). Deng (2010) suggests that it is imperative for future studies to examine whether and to what extent Chinese firms can benefit from OFDI.

From observing a number of well-known Chinese manufacturers that have achieved huge success on the global stage, for example, Lenovo, Huawei, BOE, ZTE, Haier and BlueStar-ChemChina, extant studies suggest that formal institutional support from the home government (Xie and White, 2004), multinationality and adaptation to different cultures have significant and positive influences on Chinese MNEs' growth of competitiveness-enhancing assets, such as, brand awareness, product innovation, and intellectual property (Stahl and Lengyel, 2003; Buckley, Cross, Tan, Xin, Voss, 2008; Liu, 2007; Fan, 2006; Nakai and Tanaka, 2010). However, due to the complex nature of knowledge and other forms of capabilities, OFDI does not automatically bring improvement in strategic resources (Deng, 2010).

One typical challenge that cross-border knowledge seekers often encounter derives from the cultural and organizational differences between strategic resource transferors and transferees, which can complicate the assimilation of new external knowledge and technology. As organizational learning theory outlines, the development of knowledge is history-dependent and target-oriented routine, therefore firms need dynamic capabilities to identify, interpret, store, combine and create technological and intellectual capabilities (Levitt and March, 1988; Cohen and Levinthal, 1990).

Based on a comparative case study on two notable Chinese electric products manufactures, Deng (2010) attributes successful international expansion to the possession of strong internal absorptive capacity, and argues that if the acquiring firm does not have the ability to identify, combine and apply the external new strategic resource, it cannot benefit from OFDI in the long

run. For example, TCL clearly lacked such absorptive capacity before its acquisition of Thomson's. As a result, the firm failed to translate Thomson's technological advantages (patents of CRT and projection TV) into a competitive position in the world market, and eventually handed over its largest TV maker trophy to Samsung.

Given the potential of the springboard view (Luo and Tung, 2007), absorptive capacity (Deng, 2010), and institutional support (Xie and White, 2004; Matthews and Cho, 2004) for explaining why some Chinese MNEs can successfully enhance their competitiveness, we adopt this integrated theoretical framework to study the determinants of the development of Chinese MNEs' strategic resources in terms of the intangible assets they own and the patents they have obtained. Extant studies regarding EMNEs' firm-specific advantages augmentation have mostly relied on interviews and case analysis (Deng, 2010). In contrast, this study is based on a rich firm-level dataset containing the ownership, performance, and OFDI information of 561 Chinese listed manufactures that have foreign sales and offices, over the seven-year period 2009 to 2015. Our sample is selected from four of the most representative Chinese manufacturing industries: chemical materials, telecommunication equipment, electronic machinery, and pharmaceuticals (Buckley et al., 2008).

The structure of this chapter is organized as follows: Section 2 reviews the extant literature on factors that have a possible influence on EMNEs' competitiveness and develops the hypotheses. Section 3 presents the research methods and data. The discussion of results is presented in Section 4, and Section 5 concludes the study.

5.2 Literature Review and Hypothesis Development

5.2.1 OFDI as a Springboard

The "springboard view" was developed as an extension of strategic asset seeking (Child and Rodrigues, 2005) and the leapfrog perspective (Anderson and Engers, 1994) to explain the motivations and characteristics of EMNEs' international expansion, suggesting that Chinese companies "systematically and recursively" use outward foreign direct investments to strengthen their competitive position and resolve the deficiency in a variety of capabilities and resources, such as market knowledge, product innovation, managerial capabilities, customer-supplier relationship, and brand awareness (Luo and Tung, 2007, p.484-485).

This view is consistent with the prevailing asset-exploration EMNE studies which argue that FDI is the most effective channel for Chinese newly emerged MNEs to access and acquire strategic resources (Vermeulen and Barkema, 2001; Chung and Alcacer, 2002; Wesson, 2004; Deng, 2009), further, Luo and Tung (2007) suggest that FDI can be used as a springboard to learn from more developed markets and acquire critical resources that have the potential to contribute to competitiveness enhancement. For example, both market-seeking and efficiency-seeking emerging economy firms can use international expansion to penetrate US or EU markets and increase the efficiency of interacting with host market external stakeholders (e.g. suppliers, customers, OEM partner, quality inspection authorities, technology providers, etc). The improved market accessibility in turn helps EMNEs gain distant coordination experience, learn new technology and market trends, monitor and mimic industry leaders'

production innovation and competition strategy (Liu and Li, 2002; Dunning and Lundan, 2008; Athreye and Kapur, 2009). According to organizational learning theory, the accumulation of such organizational, spatial and content experiences can be transformed into explicit and/or tacit knowledge, which is considered as an important source of strategic resource development (Levitt and March, 1988; Cantwell, 2001; Argote and Todorova, 2007).

The influence of internationalization on strategic asset-seeking firms is more straightforward as it enables EMNEs to annex the acquired firm's core resources in terms of human capital, market resources, manufacturing techniques, intellectual property and market channels (Lane, Salk, and Lyles, 2001; Chung and Alcacer, 2002; Matthews, 2006; Wesson, 2004). The integration with technology-leading or well-known firms will lead to an accelerated reconfiguration of the acquiring firms' existing knowledge base towards the higher end of the value chain, and help the resource transferee leapfrog time-consuming and path-dependent development of technological and managerial capabilities (Dierickx and Cool, 1989; Vermeulen and Barkema, 2001; Deng, 2009). Luo and Tung (2007) also argue that foreign acquisition can fill the void in EMNEs' brand awareness and reputation on a global scale. By conducting high-profile mergers or acquisitions (especially in developed economies), the investing firm gains a higher level of international influence, which may subsequently increase the recognition and value of its brand.

Lastly, Chinese firms can also relocate innovation, learning, and R&D activities via FDI to more efficient institutions, in order to improve the efficiency of developing strategic resources. Deng (2009) suggests that technological innovation and knowledge creation are often constrained in China due to its poor protection of intellectual property and inefficient

enforcement of laws (Morck, Yeung, and Zhao, 2008; Ling, 2007; Khanna and Palepu, 2006). The "misalignment between firm needs and home country institutional conditions" pushes domestic firms to move their R&D and technical teams to more transparent and supportive markets, so they can avoid home market constraints and "be able to concentrate on building their knowledge base and developing and upgrading their competitive advantages" (Deng, 2009, p.77).

Hypothesis 1: Firms with a higher level of outward foreign direct investment are more likely to develop strategic resources.

5.2.2 The Importance of Absorptive Capacity

Although engaging in international expansion offers Chinese MNEs more opportunities to accumulate and develop strategic resources (Deng, 2009; Luo and Tung, 2007), asset-exploration FDI does not automatically provide competitiveness enhancement because strategic resources are tacit, sophisticated, specialized and complex in nature. The absorptive capacity perspective suggests a successful assimilation requires the firm to possess related capabilities, such as the ability to recognize, comprehend, and apply the external and new information and assets, to make sure the firm can integrate and retain these strategic resources into its internal knowledge base (Deng, 2010; Levin and Cross, 2004; Wang, Hong, Kafouros, and Boateng, 2012).

The conventional resource-based view maintains that there are four important

characteristics of firms' strategic resources: valuable, rare, inimitable and non-substitutable (Barney, 1991, 1995; Peteraf, 1993; Amit and Schoemaker, 1993). To prevent the core competence from diffusing to rivals, firms would generally design and implement a combination of planned and unplanned work habits, innovation activities, strategies, corporate cultures and regulations to reinforce the causal ambiguity (Reed and Defillippi, 1990; Lippman and Rumelt, 1982). However, if the asset-seeking or knowledge-transferring firm lacks the capability of interpreting sophisticated and specialized resources, casual ambiguity will result in uncontrollable risks, management confusion, and ignorance to the firm itself (intra-firm casual ambiguity), which hampers the assimilation of new strategic resources (King and Zeithaml, 2001; Powell, Lovallo and Caringal, 2006; Kunc and Morecroft, 2010; Ambrosini and Bowman, 2010).

A comprehensive understanding of newly acquired resources often serves as the key to overcome the causal ambiguity barriers because it helps the firm evaluate and cope with the opportunity, risks, value, and functionality generated from absorbing and applying new strategic resources (Cohen and Levinthal, 1990; Kim, 1998, 2001; Zollo and Singh, 2004). Previous studies often argue that the "identification" and "understanding" layer of a firm's absorptive capacity is determined by the level of R&D intensity, technology, and labour quality it possesses (Cohen and Levinthal, 1990; Kim, 1998, 2001; Zollo and Singh, 2004; Zahra and George, 2002), thus firms with a strong knowledge base are able to build better understanding of more complex and specialized resources, and hence, knowledgeable firms are more likely to select the appropriate assets from numerous alternatives and overcome causal ambiguity barriers (Aghion, Bloom, Griffith and Howitt, 2005; Szulanski, 1996; Zahra and George, 2002).

Kunc and Morecraft (2010) suggest that knowledge-seeking firms with strong R&D capabilities can exploit their advantage in product and process innovation, patent development, new technology application, etc., to accelerate the integration of newly acquired resources into value-creation and competitiveness-enhancing activities. Therefore, we argue that innovative and technological capability plays an important role in enabling Chinese MNEs to absorb new resources and develop their own strategic resources.

Hypothesis 2A: The development of strategic resources is associated positively with Chinese Firms' innovative and R&D capabilities.

Another stream of absorptive capacity studies focuses on the influence of the social context on the efficiency of absorbing new strategic resources (Inkpen and Tsang, 2005), for example, if a firm conducts knowledge exploration or strategic asset acquisition in a psychically distant market, it will encounter additional challenges derived from the differences in national and corporate cultures, languages, customer behaviors, and cognitive systems (Tsai and Ghoshal, 1998; Nahapiet and Ghoshal, 1998). The contradiction between knowledge transferor and transferee's management mechanisms, perception of compensation, and personnel arrangements can increase resistance to interact between business entities and result in a misunderstanding of collective goals, which will restrain the knowledge flows (Child, Falkner, and Pitkethly, 2001; Palich and Gomez-Mejia, 1999).

The ability to cope with sociocultural difference serves as a foundation to harness new strategic resources in the context of cross-border mergers and acquisitions (Park and Ungson, 1997; Lhuillery and Pfister, 2009; Stahl and Voigt, 2008), because a better understanding of contextual attributes allows MNEs to conduct legitimate action under complex and unspecified contingencies (Kogut and Zander, 1992) and helps the management develop effective coordination mechanisms to build trust with knowledge transferor, encourage information exchange between entities, and improve the synergy of knowledge integration and transformation (Ahuja and Katila, 2001; Lhuillery and Pfister, 2009; Rallet and Torre, 1999; Bjorkman, Stahl, and Vaara, 2007; Stahl and Vogit, 2008).

Prior organizational learning studies suggests that the experience and knowledge accumulated from related activities is positively associated with firms' understanding of markets, social contexts, products, competitors, etc. (Kogut and Zander, 1992; Bjorkman, Stahl, and Vaara, 2007; Zollo and Singh, 2004). Therefore, the longer a firm has engaged in internationalization, the more likely it can handle the challenge of sociocultural difference and achieve the integration benefits in different markets.

As an example, Deng (2010) argues that Lenovo's acquisition of the personal computer department of IBM was strongly facilitated by its prior experience of international joint venture and R&D activities The accumulated knowledge enabled the firm to recognize the potential challenge of this acquisition and design a series of targeting strategies, such as language courses, skilled labour recruitment, and the appointment of the new management with strong cross-cultural skills, to elevate the whole organization's combinative capability in a limited time. The enhanced absorptive capacity then served as an important channel for Lenovo to

build trusting relationships with previous IBM key workers, promote information exchange, and the integration was successfully implemented. As a result, Lenovo assimilated IBM's human capital and core technological competence into its own organization, and became the largest PC vendor in the world since 2013.

Hypothesis 2B: The development of strategic resources is associated positively with Chinese MNEs' prior related OFDI experience.

5.2.3 China's Institutional Environment

The lack of available finance, in conjunction with competition fairness (e.g. unequal chance to obtain political and financial support, regional protectionism for certain local firms, and SOE's privilege access to public resources), laws and regulations, tax burdens and support systems have been considered as five critical institution-based impediments for Chinese firms to develop innovation capabilities (Zhu, Wittman and Peng, 2012). Lardy (1998) argues that China's centralized state power and imperfect capital market has created a disequilibrium banking system, which injects the majority of public financial capital into state-related enterprises to reinforce the government's control over economic development. The inefficient allocation of financial resources has significantly restrained capable firms from engaging in R&D activities, because firms without privileged access to government financial support have to rely on self-financing to support innovation activities (Zhu and Sanderson, 2009; Zhu, Wittman and Peng, 2012; Ling, 2006; Deng, 2009). Since the upgrade of technology is a

path-dependent process and generally involves huge capital investments and many uncertainties, Chinese firms generally remain very prudent about engaging in product and process innovation.

According to the country-specific advantage perspective, Chinese MNEs' special ability to cope with domestic institutional constraints is an important source of their scale production advantage because it allows domestic firms to gain privileged access to cheap production factors, government political and financial support, soft loans, etc. (Bhaumik, Driffield, and Pal, 2010; Khanna and Palepu, 2010; Buckley, Cross, Tan, Xin, and Voss, 2008). This is supportive of the view that the increasing presence of Chinese MNEs' OFDI to a large context is reliant on the home government's financial and political support (Deng, 2009; Ma and Andrew-Speed, 2006; Cuevo-Cazurra, Inkpen, Musachhiho, and Ramaswamy, 2014). The access to state bank loans allows Chinese firms to conduct innovation activities and use sizeable asset-exploration FDI to address the shortage of technological and managerial capabilities (Buckley et al., 2007; Luo and Tung, 2007; Rui and Yip, 2008; Deng, 2009). Chinese firms with strong government support are also believed to enjoy access to state-owned scientific and technological resources, such as, government funded R&D projects, scientific researchers, official databases and scientific research institutions (Wang, Hong, Kafouros, Wright, 2012; Soh and Yu, 2010). This offers domestic firms a channel to leverage their external knowledge base to improve their absorptive capacity, and the improved technological capability will in turn increase the possibility of assimilating external and new strategic resources into value-creation activities.

Hypothesis 3: Firms with better access to capital in China are more likely to develop strategic resources.

5.3 Data and Method

There are an increasing number of empirical studies exploring Chinese MNEs' internationalization strategies and patterns using firm-level database (Anderson and Sutherland, 2015; Ramasamy, Yeung, and Laforet, 2012). In line with our research interest, we select 561 Chinese public manufacturers that have an OFDI record during 2009-2015, from a full sample set of 757 listed firms in chemical materials, telecommunication equipment, electronic machinery, and pharmaceuticals industries as the subject for this study. Different from small and medium size firms, Chinese listed firms' financial information is more transparent and generally available on various official and institutional databases, thus empirical studies based on public companies' data can produce robust results. The outward investment record of our research subjects is directly sourced from the Chinese government's database, and we obtained other firm-level data through reviewing these firms' annual reports.

A firm's strategic assets can range from production technique, brand awareness, technological and managerial capabilities. As Tabl 1 presents, we have applied two indicators in this study for the purpose of providing a more holistic view of how firm-level factors affect different types of strategic assets. The first dependent variable we use to measure firm-specific advantage is intangible assets, which represent the stock of value-enhancing assets a firm possesses. According to China's Accounting Standards for Enterprises No.6-Intangible Assets

(Issued in 2001, re-edited in 2006), an intangible asset is defined as a proprietary asset that 1) has no physical attribute, 2) under the law and regulation, another party cannot utilize it without compensation, 3) the period of validity is not certain due to the development of technology and market, 4) sharable (the transfer or license of an intangible asset enables more than one party to own the asset simultaneously, however, fixed or variable assets cannot be owned by two parties at the same time), and 5) the possession of an intangible asset gives the firm higher profit than its cost (note: goodwill and brand recognition are not considered as intangible assets in China's Accounting Standards for Enterprises).

In contrast to the comprehensive measure of strategic assets, the other dependent variable we used in this study, the number of patents a firm owns, is directly linked with the given enterprise's technology and intelligence level. The relevant patent offices in China have classified the filed patents into three categories: industrial design (design), the utility model, and the invention property right. The design patent refers to the innovation in the appearance (configuration, patterns, colour, shape, or the combination of them) of a two- or three-dimensional physical form that contains aesthetic value and can be used in the production of commodities. The utility intellectual property, also known as "Petty Patent ", covers the functional improvement of a physical commodity (exclude gaseous, liquid, powder and granulate state) in terms of its shape, composition and method of application, which comes with a higher level of practical value. For the innovation emphasizing on creativity rather than practicability (e.g., a new design of air compressors that can significantly increase efficiency; the invention of antimalarial Artemisinin; applying laser holography to synthetic leather production as a new use of laser technology), China's State Intellectual Property Office classify

any "new technical solution related to the product, the process, or the functionality improvement" into the invention intellectual property right (SIPO, 2010). All variables included in this study are presented in Table 5.1:

Table 5.1 The List of Variables

Variable	Proxy	Theoretical Justification	Data Source
Dependent Variable			
IA	Intangible Asset in Logarithm Form	Advantage in Intellectual Property	Annual Report
PT	The Number of Design, Utility Model, and Invention Patents Owned by The Firm	Advantage in Technology	State Intellectual Property Office
Independent Variable			
OFDI	Annual Outward FDI in Logarithm Form	Hypothesis 1: Springboard Perspective	MOFCOM and SAFE
Experience	Prior OFDI Related Experience	Hypothesis 2b: Prior Related Knowledge in Absorptive Capacity	MOFCOM and SAFE
R&D Intensity	R&D Expenditure per Employee in Logarithm Form	Hypothesis 2a: Knowledge Base in Absorptive Capacity	Annual Report
Debt Ratio	Debt to Asset Leverage Ratio	Hypothesis 3: Institutional Support	Annual Report
ROA	Return on Asset Ratio	Control Variable: Profitability	Annual Report
Employee	Total Employees in Logarithm Form	Control Variable: Size	Annual Report
State Own	State Ownership: 1= if China's government owns more than 50% of the firm's shares, 0= Private-Owned Enterprises	Control Variable: Ownership	Annual Report
Industry	1= chemical material 2= telecommunication equipment 3= electric machinery 4= pharmaceutical products	Control Variable: Industry Dummy	Shanghai and Shenzhen Stock Exchange

In line with the data type, we first adopt the same estimators used in the previous

empirical chapter (fixed and random effects OLS models) to analyze the relationship between our independent variables and continuous dependent variables (intangible assets). To decide which estimator is more efficient, the Hausman test is adopted, which gives the null hypothesis that the unique errors are correlated with the predictors of the model (Baltagi, 1995).

Since the patent data obtained from China's state intellectual property office is non-negative integer values (i.e. 0, 1, 2…), this suggests we use panel count-data models, such as fixed- or random-effects poisson or negative binomial model, to conduct the analysis. According to Wooldridge (2002), the unconditional poisson probability specification should be constructed as:

$$\Pr(y_{it}) = \frac{e^{\lambda_{it}}\lambda_{it}^{y_{it}}}{y!}, \text{ when } \lambda_{it} = E(y|x) = var(y|x)$$

where y is a random variable indicating the number of patents owned by a Chinese firm i in year t, λ is the mean of all research subjects considered in this study during the same period. In Poisson estimator, the parameter λ for each company i at time t is determined by a set of independent variables, X, with coefficients, β, and the equation is presented as:

$$\lambda_{it} = \exp(X_{it}\beta)$$

Note that Poisson models assume that there is no unobserved heterogeneity in the count data, therefore, the variance of y_{it} is equal to its mean. If the prerequisite does not hold, then scholars should then adopt a Poisson mixture model such as negative binomial, because it has additional parameters that allow the adjustment to the standard errors.

5.4 Results and Discussion

The estimated coefficients generated from both fixed and random effects models are presented in this section (the marginal effects for the discrete dependent variable, patent, based on fixed and random Poisson model are presented in Table 5.3), and we have used the Hausman test to test the hypothesis of fixed effects. The null hypothesis of fixed effects is rejected, so the random effects model is preferred as the error terms are correlated and the variation across the selected firms is random. Each table shows the factors determining the different aspects of Chinese MNEs' strategic assets. In this study, we have used intangible assets and patents to represent the growth in intellectual property and technology development, respectively. To facilitate causal inference and avoid endogeneity issues, all explanatory variables are lagged by one year except for industry and year dummy variables.

The Hausman test in Table 5.2 suggests that the random effects model is more efficient than fixed effects model for analyzing the factors that have potential influences on Chinese MNEs' intangible assets, and the use of random effects estimator improves the overall R^2 from 0.41 to 0.47. Our results show the coefficients of the four primary predictor variables, OFDI flows, prior OFDI experience, R&D intensity, and debt ratio are all significant and positive at 5% level. This supports Luo and Tung's (2007) supposition that Chinese MNEs can use both opportunity- and resource-seeking OFDI as a springboard to address competitive disadvantages in market and technological resources, and supports hypothesis 1.

The positive association between the level of intangibles and firms' absorptive capacity highlights the enabling role of prior related experience and knowledge base in Chinese MNEs'

development of value-enhancing assets, this finding is consistent with Deng's absorptive capacity study in which he argues that firms need to possess a certain level of absorptive capacity before they can benefit from OFDI and develop their own competitiveness (2010).

Table 5.2 Intangible Asset

Intangible Asset.	Fixed	Random
OFDI	0.02*(0.01)	0.03**(0.01)
Experience	0.07***(0.01)	0.06***(0.01)
R&D Intensity	0.11***(0.03)	0.13***(0.02)
Debt Ratio	0.65***(0.25)	0.71***(0.21)
ROA	0.17(0.42)	-0.09(0.40)
Employee	0.64***(0.05)	0.72***(0.04)
Industry 2		-0.97***(0.17)
Industry 3		-0.62***(0.18)
Industry 4		-0.40**(0.17)
State Own		-0.26**(0.12)
Time Effects	Panel	Panel
R2	0.33 w/i	0.33 w/i
	0.41 b/t	0.48 b/t
	0.41 oval	0.47 oval
F-test	67.38***	705.00 (Wald)***
Hausman		0.11
Observations	1,152	1,152
Group (Firm)	335	335

Note: *** p< 0.01; ** p< 0.05; * p< 0.10.

We also found the accessibility to financing is an important organizational antecedent that is positively associated with the development of intellectual property, but the coefficient of the control variable state ownership is significant and negative. This finding is contradictory to our hypothesis of institutional support as state-owned firms may find it is easier to access government support and public resources (Cuervo-Cazurra, Inkpen, Musacchio, and

Ramaswamy, 2014), but according to the ownership structure studies based on Chinese firms, the internationalization decision and activities of Chinese SOEs are not driven by business-oriented strategic goals, these firms have to comply with the national economic development plan, which is generally linked to the acquisition of natural resources, cooperation with diplomatic policy, and stabilizing the employment status of the home market, rather than pursing the opportunity of improving competitive advantages (Liu and Li, 2002; Khanna, Palepu, and Sinha, 2005). The inefficient organizational structure is another severe obstacle that hinders state-owned firms' performance (Shleifer and Vishny, 1989). Li, Cai and Lin (1998) argue that without private shareholders' supervision, Chinese state-owned firms are not under profitability pressures. The lack of strategic incentive to upgrade competitiveness means that Chinese state-owned firms cannot promptly respond to market changes, and they have been found to be much less efficient in operation efficiency and innovation activities than private-owned firms (Zhang et al., 2003; Cull and Xu, 2003; Lin, Cai, and Li, 1998).

In 2001, China's accession to the WTO escalated the competitive pressure on domestic enterprises, owing to the compulsory trade agreements that subsequently opened the once closed market to foreign firms. This forced China to push forward the implementation of the "go global" development plan through liberalizing international trade, simplifying approval procedures and accelerating the privatization process, in order to promote exports and encourage all capable firms to explore advanced technological and managerial capabilities in foreign economies (Zhang, 2003; Yu, Chao, and Dorf, 2005). As a result, a number of private-owned and partially state-owned manufacturers such as Lenovo, Haier, TCL, BOE, and

Huawei, have received substantial financial and political support from China's government, and successfully assimilated considerable strategic resources in foreign markets (Xie and White, 2004; Rui and Yip, 2008; Deng, 2009, 2010).

Our findings are consistent with prior studies on China's peculiar institutional framework and the development path of indigenous MNEs with different ownership structures, as the estimated result confirms that private-owned firms with access to financial support can better build their competitiveness from outward foreign direct investments whereas state-owned firms are less likely to achieve this goal because the benefits of the privilege of access to government support are offset by policy-oriented business strategy and inefficient hierarchical organizational structure.

Next, we adopted fixed and random effects generalized linear Poisson models to analyze the count dependent variable, total patents held by the Chinese manufacturer. Different from intangible assets, the number of utility model and design patents a firm owns directly reflects the available stock of proprietary assets that can be transformed to technological capability, which is also the key interest situated in many Chinese MNE studies.

Table 5.3 Patent- Poisson Model

Patent	Fixed	Marginal Effects	Random	Marginal Effects
OFDI	0.01***(0.00)	0.24%	0.01***(0.00)	0.29%
Experience	0.10***(0.00)	2.46%	0.10***(0.00)	2.93%
R&D Intensity	0.13***(0.01)	3.20%	0.13***(0.01)	3.81%
Debt Ratio	0.30***(0.06)	7.39%	0.32***(0.06)	9.39%
ROA	0.88***(0.11)	22.67%	0.86***(0.11)	25.23%
Employee	0.16***(0.01)	3.94%	0.19***(0.01)	5.57%

Industry 2		0.95***(0.20)	27.87%
Industry 3		1.30***(0.22)	38.14%
Industry 4		-0.46**(0.23)	13.50%
State Own		-0.02 (0.13)	0.59%
Time Effects	Panel	Panel	
Likelihood	-9,357.45	-12,055.38	
Pseudo R2	0.47	0.44	
F-test	5,860.33 ***	6,039.64 (Wald)***	
Hausman		572.72***	
Observations	1,279	1,279	
Group (Firm)	313	313	

Note: *** p< 0.01; ** p< 0.05; * p< 0.10.

As Table 5.3 shows, the marginal effects of OFDI flow, prior related knowledge, existing knowledge base, and the debt ratio, are all positive and significant at the 1% level. This finding is similar to the estimated result presented in Table 5.2, and provides further evidence of the ways in which Chinese manufacturers can leverage OFDI to access strategic resources, especially technology-based assets.

To ensure that the new information or assets obtained externally can be effectively assimilated into patent production, the firm should possess multidimensional absorptive capacity, such as, prior related knowledge and a strong knowledge base examined in this study, otherwise the causal ambiguity and cultural differences will deter the firm from benefiting from sizeable OFDI. The positive and significant coefficient of debt ratio highlights the role government support plays in enabling Chinese manufacturers to upgrade new technology, supporting hypothesis 3, that China's opaque institutional framework necessitates the ability to establish a strong connection with the home government.

5.5 Conclusion

Our findings confirm the strategic importance of outward foreign direct investment to Chinese manufacturers who are eager to improve competitiveness in technological capability and production efficiency. Over a decade's course of engagement with the WTO, OFDI has been increasingly used as a proactive response to escalating competition. OFDI provides Chinese manufacturers with an expedient remedy for overcoming trade barriers, institutional voids, and underdeveloped strategic markets. The positive relationship between international expansion and Chinese MNEs' competitiveness can be explained by the following reasons: using OFDI to penetrate foreign markets can help firms bypass host market entry barriers, Chinese manufacturers with a higher level of foreign presence are more likely to expand their business territory and increase market size, which allows them to reinforce the advantage in scale production.

The direct contact with final customers also reduces the time and distance of collecting valuable information about customers, competitors, industry, the market, etc. As a result, cost-efficient Chinese manufacturers can use their foreign subsidiaries as offshore learning centers to improve the efficiency of responding to the changes in policy, standards, demand and technology, and reduce costs in order to maintain customer-supplier relationships, develop new products, and coordinate geographically distant operations.

Many Chinese MNE scholars, for example, Luo and Tung (2007), Ling (2006) and Deng (2009), also suggest that the diversified presence can alleviate Chinese firms' exposure to

irreconcilable constraints embedded in the home institutional environment, such as, weak enforcement of laws, poor protection of intellectual property, inefficient banking system, etc. By moving innovation activities to an institutionally efficient, sound, transparent and encouraging environment, emerging economy firms can concentrate more on upgrading new technology under a system that is averse to imitation and infringement of intellectual property.

Most of all, since Chinese firms currently are unable to rely on their own R&D capability to close the technology gap, the prevailing explanation often characterizes their international expansion as an active strategy of exploring foreign strategic assets that can compensate for the shortage of firm-level competitiveness, because such assets are time-consuming to develop internally and generally not available on underdeveloped home strategic factor markets (Rui and Yip, 2008; Deng, 2009). According to our analysis of 516 firms from four major manufacturing industries, we have found OFDI has consistent and positive effects on Chinese manufacturers' intangible asset stock, patent production, and management efficiency of transforming production inputs into economic value. Consequently, this study provides statistical evidence on how an increased level of internationalization can lead to an effective reconfiguration of EMNEs' knowledge base and managerial capability.

In Deng's (2010) comparative case study on Lenovo and TCL, he highlighted the role of various types of organizational antecedents in determining whether and to what extent the Chinese electronic manufacturers can benefit from enlarging international expansion. Our estimated result on the two absorptive capacity variables, OFDI experience and R&D intensity, confirms the proposition that EMNEs are required to possess a certain level of prior related

knowledge and combinative capability so that they can successfully identify and assimilate suitable resources into an existing knowledge base, and synthesize new knowledge to facilitate the production of intangible assets and patents.

The lack of access to finance is often viewed as a severe barrier to develop and sustain technological capabilities for both developed and emerging economy enterprises (Murray and Lott, 1995; Oslo Manual, 2005; Acs, Carlsson and Karlsson, 1999; Zhu, Wittmann, and Peng, 2012; Yang, Liu, Gao, and Li, 2012). Although financing constraints are not exclusively embedded in China's economic environment, the strategic importance of financing capability has been elevated under Chinese firms' urgent need for strategic resources and the strong presence of formal institutional constraints.

Our findings show that Chinese manufacturers with a higher debt ratio are more likely to upgrade intangible assets, technology and productivity, which supports Hypothesis 3. As the literature review discussed, access to financing enables Chinese firms to leverage state banks' rich resources to strengthen their presence on a global scale. The expanded business territory helps Chinese firms avoid home institution-based barriers of innovation activities, and also increases the possibility of learning and purchasing competitiveness - enhancing resources that are not available on the home market (Deng, 2009). Since these high debt firms are less constrained from conducting sizable investments, they can also leverage the financial resources to develop internal absorptive capacity by recruiting skilled workers, increasing wages, investing in R&D and training, in order to improve the efficiency of comprehending and assimilating new strategic resources.

5.6 Appendix

Appendix 5.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
IntangibleAsset	2,765	18.19739	1.556257	7.676316	24.15841
Patent	4,213	75.29433	321.7618	0	9103
FDI	1,974	18.62678	2.647408	8.070906	29.02999
Experience	5,194	1.568926	2.145301	0	7
R&D Intensity	4,711	0.0191824	0.0156634	0	0.2621019
DebtRatio	5,188	0.4042171	0.3465357	0.0075213	12.12736
ROA	5,194	0.068633	0.1035984	-1	2
Employee	5,095	7.338749	1.148636	2.70805	11.59988

Appendix 5.2 Pearson's Correlation Coefficient

	IntangibleAsset	Patent	FDI	Experience	R&D Intensity	DebtRatio	ROA	Employee
IntangibleAsset	1							
Patent	0.2941	1						
FDI	0.2536	0.1624	1					
Experience	0.258	0.0759	0.1727	1				
R&D Intensity	-0.1411	0.1264	0.1222	-0.0269	1			
DebtRatio	0.3978	0.1897	-0.0334	0.2414	-0.2713	1		
ROA	-0.0184	-0.0211	0.1477	-0.1353	0.1491	-0.43	1	
Employee	0.6265	0.4315	0.2673	0.3195	0.003	0.4847	0.0056	1

Note: categorical and dummy variables are not included

Chapter Six: Conclusions

The purpose of the three empirical studies is to test the prevailing theoretical propositions regarding the growing international expansion of EMNEs by exploring the locational determinants of outward FDI, the relationship between multinationality and profitability, and the effect of internationalization on strategic resources development in the context of Chinese internationalized firms. To begin with, the first study finds that local market size, skilled labour force and commercially viable technology are important locational factors that determine the direction of Chinese MNEs' investments. The positive association between location choice and strategic assets links the flourishing presence of Chinese enterprises in developed economies to an active pursuit of advanced assets and capabilities, which is supportive of Luo and Tung's argument (2007) that EMNEs have a strong propensity to use outward FDI as a springboard to obtain critical resources and alleviate the market constraints that impede their development.

Developed as a theoretical extension of the "Leapfrog Trajectory" (Luo, 1998; Dore, 1990; Anderson and Engers, 1994), the Springboard perspective attributes the international expansion of Chinese firms to a "grand plan" of competitiveness enhancement, which is designed to use cross-border mergers and acquisitions to maintain their competitive position at home while compensating for latecomer disadvantages (Luo and Tung, 2007, p.484). Following this viewpoint, previous studies generally categorize Chinese MNEs into: 1) Successful transnational firms, such as, Huawei, Xiaomi, Lenovo, Haier, and ZTE, actively invest in foreign headquarters, technical service teams, and R&D centres, in order to improve product

and service quality and earn a bigger global market share. 2) Export-oriented firms seek to bypass barriers and sanctions by setting up global storage and logistic centres (e.g. Chinese textile and clothing companies in Turkey, Fiji and Jamaica). 3) State- and collective-owned (partial state-owned) enterprises use aggressive acquisitions as a response to government policies to secure preferential treatments. China's government has long been criticized for providing enormous subsidies, loans and different forms of support to help state-related firms annex foreign strategic resources (e.g. Lenovo, Wolong Electric Group, Nanjing Automobile, and ChemChina). 4) Domestic-focused firms buy complementary resources and merge with existing or potential competitors, in order to sustain scale production advantage and compete against foreign entrants (Rui and Yip, 2008; Liu, 2005; Child and Rodrigues, 2005; Buckley et al., 2007; Luo and Tung, 2007).

The unique trait all these investing EMNEs share is the recursive nature of their internationalization process. Since the majority of Chinese firms must rely on domestic markets to obtain the labour, resources, and funds that enable them to compete more effectively, Luo and Tung (2007) argue that Chinese MNEs (e.g. TCL, Lenovo, Haier, etc.) strategically integrate international expansion with their activities at home to achieve better synergy. Therefore, the "recurrent" (e.g. FDI enables Chinese firms to address different strategic needs, such as improve market accessibility and avoid targeted trading barriers) and "revolving" (e.g. the international expansion of Chinese firms is closely associated with their activities and market factors at home) patterns of Chinese firms' foreign direct investments have

distinguished them from the conventional asset-seeking EMNEs that only focus on upgrading the technological or managerial capabilities (Luo and Tung, 2007, p.485).

The findings presented in the first study have confirmed that contemporary Chinese MNEs have a strong strategic intent to pursue market demand and technological resources through investing in developed economies, which imply that the increasing level of international expansion may upgrade Chinese firms' competitiveness and help them achieve strategic goals. Given that geographical diversification offers EMNEs an expedient channel to improve market accessibility, achieve economies of scale, learn new market trends and production techniques, and spread central overheads (Hijzen et al., 2011; Tallman and Li, 1996; Herzer, 2012), we then shift the research focus towards exploring how internationalization can benefit Chinese MNEs, by exploring the relationship between multinationality and Chinese firms' performance.

Using a large firm-level dataset that covers firms from four major manufacturing industries of China, the second study depicts a curvilinear relationship between the degree of internationalization and firm performance. The U-shaped curve suggests that the initial expansion entails additional costs and burdens that outweigh the diversification benefits up to the inflection point, where continuous expansion reverses the downturn and results in a positive slope. Surprisingly, the right-hand side (positive slope) of the U-shaped curve in both ROA and ROS models is significantly lower than the left-hand side, indicating that the cross-border expansion in overall has weakened Chinese firms' profitability.

The detrimental effect of multinationality is likely to be associated with the visionary strategic objective pursued by Chinese MNEs, so that they may focus too much on the asset-exploration opportunity and are unable to transform the expansion into economic returns at the current stage (Hamel and Prahalad, 1989; Deng, 2004; Rui and Yip, 2008). Khanna et al (2005) argue that the sacrifice of profitability should be considered as an integral part of the rapid development of Chinese firms because "neither Chinese companies nor banks are under the pressure to show profits", and they can "for years pursue strategies that increase their market share at the expense of profits" (p.15). Given that Chinese MNEs have accumulated considerable investment capital from previous operations and government financial support, it is reasonable to presume that Chinese MNEs would prioritize learning and knowledge transfer as the main strategic focus of internationalization.

The rapid expansion may also serve as a double-edged sword to many Chinese MNEs that lack the experience and expertise in coping with cultural differences, information overload, liability of foreignness, and distant coordination. Although geographic diversification connects Chinese MNEs to better institutions and markets, it also exposes investing firms' weakness to international competitors and increases the complexity of operation and management. This suggests that the newly internationalized Chinese enterprises may have greater learning costs at the initial stage of internationalization, thus they need more time and effort to accumulate the knowledge and capabilities that help them overcome the challenges brought by foreign expansion.

The finding of a negative MP-relationship for Chinese MNEs and the discussion on the causes of this phenomenon have highlighted the possibility that cross-border expansion for now cannot effectively improve FDI latecomers' performance, instead EMNEs focus primarily on the exploration and accumulation of experiences, resources and knowledge during internationalization. The possible positive association between internationalization and EMNEs' capability development motivates us to further explore the effects of geographic diversification on the knowledge base and strategic resources situated within Chinese firms. Since Chinese MNEs can leverage outward FDI to learn and acquire what the home market cannot offer, we hypothesize that the increasing level of internationalization encourages the development of competitive advantages in the context of Chinese MNEs; otherwise, firms from China would choose a more conservative development strategy, such as strengthen the innate cost-effective advantage, acquire intellectual property licenses, or become an original equipment manufacturer (OEM) for technology-leading firms.

To verify this hypothesis, we adopt the same dataset of the second study and use both OLS and Poisson models to research the influence of multinationality and other organisational antecedents on the accumulation of intangible resources and patents. The significant and positive coefficient of the internationalization variable confirms the strategic importance of international expansion to Chinese asset-seekers, suggesting that the investment in foreign acquisitions and subsidiary establishment will subsequently lead to a significant increase in the value of intangible assets and the number of patents owned by the parent firms. This finding not only solves the puzzle left over in the second study of what are the true benefits of

multinationality that drive Chinese entrepreneurs to continuously deepen the integration with foreign markets, it also echoes our first study and contributes supportive evidence to the springboard perspective by showing the enabling role of international expansion in enhancing Chinese firms' overall competitiveness.

The three interrelated studies have provided a strong empirical basis for the discussion of the importance of cross-border expansion to contemporary Chinese firms. Our findings should encourage emerging economy FDI latecomers to actively engage in global economic integration, exploring the critical resources that can compensate for competitive disadvantages, using outward FDI to address strategic needs, and accumulating the internationalisation and R&D development knowledge to facilitate absorption of new strategic resources.

A remarkable heterogeneity of Chinese MNEs found in our studies is their willingness to exchange profitability for future growth opportunities in the process of internationalization. Even though the asset-seeking and leapfrog perspectives propose that firms can use the acquired strategic resources to accelerate the upgrade of the internal knowledge base and technological capabilities (Deng, 2009; Dierickx and Cool, 1989; Dore, 1990), related studies have largely underestimated the costs and risks involved in the competitiveness enhancement of EMNEs. Apart from continuous investments in international expansion, the third study also finds that a successful accumulation of strategic resources requires the emerging economy firm to possess a certain level of absorptive capacity and strong access to finance. If such preconditions cannot be satisfied, the investing firm's development of strategic resources will be constrained by causal ambiguity barriers, cultural conflicts, financial constraints, etc.

Since the Chinese government has failed to provide an efficient capital market, many domestic firms must rely on state bank loans to remain competitive (Lardy, 1998, 2008; Zhu et al., 2012). The finding of a positive influence exerted by access to finance may help rationalize Luo and Tung's (2007) argument about the recursive nature of EMNEs' international expansion activities, because now we can connect the springboard perspective with country-specific advantages (Bhaumik et al, 2015), and attribute the integration between Chinese firms' home and internationalization activities to their reliance on the favorable factors situated in their home markets, such as cheap resources, soft loans, and government support. Since many Chinese MNE studies have argued that conducting cross-border investments is an effective move to obtain financial and political support as China's government has been vigorously promoting the economic transition from labour-intensive industries to a capital- and technology-intensive economy (Rui and Yip, 2008; Deng, 2009; Luo and Tung, 2007), insightful Chinese entrepreneurs can use international expansion to promptly address competitive disadvantages while reinforcing the relationship with the home government and sustaining access to country-specific advantages. Therefore, the springboard perspective appears to be more consistent with the improved entrepreneurship, market constraints, and institution incentives that are embedded in China's business environment.

The three studies have also provided practical guidance for Chinese MNEs that attempt to establish a competitive position on the global stage. In regard to the type of strategic resource Chinese MNEs would pursue, the first study suggests that the FDI latecomers are more interested in developed economies' high technology industry labour force and technology

exports (commercially viable technology) over raw technological resources (e.g. patents, publication of scientific research, and R&D). Ramasamy et al (2012) argue that Chinese asset-seekers seem "pragmatic in the sense that bringing back core research home need not necessarily increase their core competencies if the human capital and other capabilities in China are unable to add value to this core technology" (p. 47). This is particularly true in the case of firms that mainly rely on the advantage of technology-standardization and mass production (Bhaumik, Driffield, and Zhou, 2015). Given the example of TCL's acquisition failure, blindly pursuing unmatched strategic resources cannot lift the firm's technological capability to the next level, instead such investment would cause severe damage to acquiring firms' productivity and development in the future.

By researching Chinese manufactures' MP-relationship, the finding of the second study exhorts Chinese newly internationalized firms to remain patient and cautious during the expansion because they will encounter a long-term decrease in profitability. If they failed to manage liquidity or lost access to strong financial support, the cost of further expansion may force internationalizing firms to stop growing or even quit pursuing their strategic objects, which will result in further profit decrease or a failed exploration of strategic resources. On the other hand, the moderating effect of R&D intensity found in the analysis has highlighted the importance of dynamic capacity in the internationalizing process. The investment in product and process innovation not only helps the internationalized firm to handle the multinationality challenges that are caused by information overload and distant cooperation, it also extends the

benefits gained from geographic diversification, leading to a more balanced U-shaped MP relationship.

State ownership arguably acts as a double-edged sword to contemporary Chinese enterprises. On one hand, firms with stronger government ties can easily obtain preferential access to production materials and financial support. However, the hierarchical system and missing shareholder supervision appear to impair the efficiency of managing and cooperating (Shleifer and Vishny, 1989). This suggests that internationalized emerging economy firms should introduce a more effective performance and supervision system to facilitate information flow, implementation efficiency, and governance quality.

The third study should encourage cash-rich emerging economy firms to adopt a more active expansion strategy as a response to escalating global competition, because the increasing level of internationalization can lead to an effective improvement in firms' strategic resources. Fast-developing Chinese firms need to recognize the strategic importance of international expansion, as it not only provides a channel to penetrate developed strategic factor markets, geographic diversification also alleviates their exposure to market constraints that are profoundly embedded in the home institutional environment. By moving certain business activities, such as innovation and organizational learning, to a more efficient, sound, transparent and encouraging environment, FDI late entrants are highly likely to improve the efficiency of enhancing competitiveness.

This study also suggests that absorptive capacity is a necessary organizational antecedent for strategic asset augmentation. This finding supports the contention proposed in the organizational learning theory that successful strategic assets development requires the firm to possess a certain level of prior related knowledge and combinative capability. As FDI latecomers, most Chinese firms generally lack prior related knowledge of international operations, thus some EMNEs have paid a bitter price for pursuing strategic assets (e.g., TCL and Thomason TV; Bright Food and Danone; Sichuan Tenzhong and Hummer; SAIC Motor and SsangYong Motor).

Finally, the significant influence exerted by the high debt ratio indicates that Chinese firms' development of strategic assets requires state bank support and the ability to operate in an inefficient capital market. This finding is consistent with a substantial number of extant studies reporting that lack of access to finance is a severe barrier for firms' innovation and survivability (Murray and Lott, 1995; Oslo Manual, 2005; Acs, Carlsson and Karlsson, 1999; Zhu, Wittmann, and Peng, 2012; Yang, Liu, Gao, and Li, 2012). Therefore, this study suggests that insightful Chinese entrepreneurs can tactfully attach their development to China's state bank and other government agencies (e.g. National Development and Reform Commission and CITIC Group), leveraging state-owned capital to recruit more skilled workers, acquire complementary resources, invest in R&D, training, and other areas that can upgrade the internal knowledge base.

Despite the growing tendency among emerging economy firms to engage in geographic diversification, and actively leverage their cross-border investments to strengthen

competitiveness, this research suggests that foreign direct investment should not be treated as a panacea for competitive deficiency. This is particularly pertinent for EMNEs that are owned by state government or have a lower level of absorptive capacity, and therefore lacking capability to cope with the increased complexity caused by cultural differences, potential management conflicts, causal ambiguity, technology difference, etc. Through studying Chinese firms' FDI determinants and impacts, we find that successful players tend to acquire commercially viable technology from developed strategic factor market while continuously improving internal knowledge base and maintaining financially stability. This indicates that newly internationalised EMNEs should be clear about their own development focus and vulnerabilities in the process of expansion. As a result, a more pragmatic, patient strategy would help them sustainably improve technological and managerial capabilities.

Despite the aforementioned contributions, the study has a number of limitations. The theoretical framework of the first study is built upon three conventional and emerging FDI perspectives. Although the integrated framework provides a more holistic view of Chinese firms' location choice, the explanatory power of our research may vary depending on firms' own characteristics and the environment they are operating within. For example, the FDI determinants of some state-owned enterprises or the firms in government controlled industries, such as banking, real estate, chemical, energy etc., may be highly policy-oriented and does not follow conventional theoretical perspectives, hence such firms may have a weaker propensity to explore strategic assets or market demand in foreign markets.

Secondly, each of our region-level determinants only includes a limited number of variables because the Eurostat database does not contain a wide variety of economic, cultural and institutional data on the 114 EU NUTs-2 regions (e.g. regional governance quality, the degree of economic ties with China, and ethnic diversity), thus we only tested the institutional influences at the nation-level. Thirdly, China is a good case for testing the applicability of conventional and emerging IB theories as it "presents many special conditions that are rarely encountered in a single country" (Buckley et al., 2007, p.500), but we still recommend future EMNE scholars to fully consider the political and regulatory context of the firms they are studying, because the peculiarity exists across different institutional frameworks. China has strict control over foreign currency exchange, license approval, capital raised and various business-related activities, but the emerging economy leader is also known for enormous industry subsidies and strong financial support for domestic firms. In contrast, other developing country governments have played a less vigorous role in encouraging the internationalization process.

One limitation of the second study is the measure we used for Chinese manufacturers' multinationality. Since the degree of a firm's geographic diversification is multi-dimensional and dynamic, future researchers can include more factors such in their DOI measure if they are able to access a larger and more diversified dataset, such as the number of overseas offices, the share of foreign employment, and the plant size in other countries (Sullivan, 1996; Ramaswamy, Kroeck, and Renforth, 1996).

Scholars should also be aware of the heterogeneity among firms from different industries. Our empirical findings are derived from a dataset that contains 25% of publicly listed companies in China's stock market and all of the selected firms are manufacturing enterprises. Since our subsample analysis suggests that the MP relationship varies depending on the industry the firm belongs to, it would be beneficial for future scholars to extend the analysis to other sectors (i.e. professional and financial services firms). Finally, we recommend scholars analyze the impact of FDI destination and entry mode on the MP relationship, to explore whether Chinese firms can operate more effectively in other developing economies that share similar institutional features with China.

Some limitations of the third study provide opportunities for future studies. First, many prior studies of absorptive capacity are based on qualitative data, with a lack of discussion regarding the measure of each dimension of absorptive capacity, for example, the third study only includes R&D intensity and internationalization experiences as the proxy of firms' identification and integration capabilities. As Deng (2010) suggests, another important determinant of the efficiency of accumulating new strategic resources is the level of combination capability a firm possesses, such as, strategy execution, environment adaptability, and complementary resources. These organizational antecedents are difficult to measure due to data constraints and inadequate prior related studies, hence we suggest there is a need of systematic studies on the absorptive capacity measures.

Second, future research could extend the study by researching the influence of specific types of FDI on Chinese firms' strategic resources, for example, what is the relationship

between the degree of internationalization and the number of patents owned by the parent firm in terms of different FDI motivations (resource-seeking vs. efficiency seeking), modes (acquisition vs. merger) and destinations (developed economies vs. developing economies, or natural resource-rich developed economies vs. high purchasing power economies). The control of these context-specific effects will produce more robust research on how multinationality can affect EMNEs' strategic asset development.

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