

Louvain School of Management

Chinese multinationals' cross-border mergers & acquisitions and innovation performance in the context of technological catch-up

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ABSTRACT

The phenomenon of Chinese cross-border M&As is recent but important in the context of China's economic transition and technological catch-up. Indeed, scholars argue that Chinese are after strategic assets in developed countries in order to improve their competitive position on the international stage (Deng et al., 2017). While the effects cross-border M&As on the acquirers' innovation performance has been explored extensively for western companies from developed countries, the case of China remains understudied (Fisch et al., 2017). My research combines theories stemming from the concepts of FDI, M&As, cross-border M&As and innovation to explore the effect of Chinese cross-border M&As on their post-acquisition innovation performance. My analysis of a sample of 37 Chinese cross-border M&As using a linear regression model suggests that Chinese companies engaging in cross-border M&As see an improvement in their post-acquisition innovation performance. Moreover, absorptive capacity and cultural distance are found to have a positive impact of the post-acquisition innovation performance. I also find that the larger the number of previous M&As, the worse the post-acquisition innovation performance is. This paper contributes to the literature by extending previous results on the phenomenon of Chinese cross-border M&As.

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LIST OF ABBREVIATIONS

<i>Abbreviation</i>	<i>Meaning</i>
<i>M&A(s)</i>	<i>Merger(s) and Acquisition(s)</i>
<i>CBMA(s)</i>	<i>Cross Border Merger(s) and Acquisition(s)</i>
<i>BRICS</i>	
<i>GDP</i>	<i>Gross Domestic Product</i>
<i>PRI</i>	<i>Public Research Institute</i>
<i>SME(s)</i>	<i>Small and Medium Enterprises</i>
<i>R&D</i>	<i>Research & Development</i>
<i>S&T</i>	<i>Science & Technology</i>
<i>FDI</i>	<i>Foreign Direct Investment</i>
<i>IFDI</i>	<i>Inward Direct Investment</i>
<i>SASAC</i>	<i>State-Owned Assets Supervision and Administration Committee</i>
<i>MNC</i>	<i>Multinational Company</i>
<i>OLI</i>	<i>Ownership, Location, Internalization</i>
<i>LOF</i>	<i>Liability Of Foreignness</i>
<i>PMI</i>	<i>Post-Merger Intergration</i>

1. INTRODUCTION

Chinese cross-border mergers & acquisitions have made the highlights in the past few years. Examples include Mideas's acquisition of Kuka, a German robotics company and Volvo's acquisition by Geely, a Chinese carmaker company. A large number of scholars argue that the reason behind these acquisitions is to have an access to technology in order to strengthen their competitive position on the international stage(Deng, 2004; Morck et al. 2008; Buckley et al., 2014).

While the literature on the effect of M&A on innovation performance in developed Western countries (Zhao et al., 2011; Ramasamy et al., 2012; Barkema et al., 2015), few scholars have investigated the effect of these acquisitions on the Chinese acquirers' innovation performance (Fisch, Block & Sandner, 2017). Hence, the answer to the question remains unclear.

Therefore, this paper focuses on the following research question: "*How did recent Chinese cross-border M&A affect the acquirer's innovation performance?*". It contributes to the literature by extending the results and insights on strategic asset seeking cross-border M&As by Chinese companies.

2. BACKGROUND: TECHNOLOGICAL CATCH-UP IN CHINA

2.1 China's transition and *innovation imperative*

The emergence of new key players such as the BRICS has drawn attention during the last decades, according to Veugelers (2016). Among these, China stands out. It makes the news every day by expanding its overseas footprint and influence, by asserting itself in Asia, and especially by attracting new investments and by managing its huge economy (Shambaugh, 2013), which represents an ever-increasing share of the world's GDP and trade (Veugelers, 2016). This rising importance can be directly tied to the Communist Party's policies, starting with an effort to engage in "*reform and opening*" during the Third Plenary Session of the Eleventh Central Committee in 1978 and following with policies designed to "*invite the world in*" during the 80s and to "*go out*" and "*go global*" during the 90s (Shambaugh, 2013).

The rise of China's economy has been impressive. Its economy has been flirting with records for the last 30 years according to World Bank's data: China's GDP has shown growth rates that oscillated between 3.9% and 14.2% with an average of 10% between 1987 and 2016, and reached \$11.2 Trillion in 2016, making it the second largest economy behind the USA. While these numbers are impressive, China's performance is far from being unique and can be compared to the growth level that South Korea, Japan and the Soviet Union have experienced in the past (Defraigne, 2012).

The example of the Soviet Union illustrates the complexity of China's situation. Indeed, the Soviet Union was not able to switch from an extensive to an intensive type of growth and was quick to stagnate (Defraigne, 2012). Extensive growth is a term that is often used to describe the Soviet Union during the cold war and characterizes growth that is generated through the extension of inputs rather than through improved productivity (Zheng, Bigsten & Hu, 2008; Ofer, 1987).

China's economy is currently at a point of inflexion where its ability to transition its economy will be critical. This constitutes "*China's innovation imperative*" (Woetzel, Chen, Manyika, Roth, Seong & Lee, 2015).

Historically, China's main growth drivers were derived from its large labor force supply and from investments. Indeed, due to its large population, China has enjoyed a large and constant supply of labour as the country was industrializing. Millions of Chinese have moved from the country side to China's increasingly numerous cities, contributing to the country's

urbanization, which itself became a driver of growth. Funded with debt, investments in fixed assets like highways, railway systems, factories and airports have been a major contributor to China's growth over the last 30 years (Woetzel et al., 2015).

China's economic growth is now slowing down and evolving towards a more consumption-driven model. The reason for this slowdown is that its historical growth drivers are losing momentum. First, China's population is aging and will soon start to shrink, thereby limiting the potential for additional large labour force supplies. Second, returns on fixed assets have begun to significantly decrease. From 1990 to 2015, it required 60% more capital to produce a unit of GDP. China must then rely on the last major contributor to GDP growth remaining: productivity (Woetzel et al., 2015). China's productivity contribution to growth has declined from 50 to 30% since the mid 90's (Zheng et al., 2008). Hence, China must promote innovation.

2.2 Innovation policies in the context of technological catch-up

Scholars have extensively studied South Korea, Taiwan and Singapore. They have faced a similar "*innovation challenge*" and managed to transition and achieve a rapid catch-up (Wong, 1999). A brief review of the literature will help to understand how they managed such a feat.

Earlier, scholars had pointed to different factors they believed were necessary in order to complete a rapid technological catch-up. Hikino & Amsden (1989) argued that late-industrializing countries should focus on encouraging the growth of large conglomerate that could rapidly transfer know-how across many different units. Focusing on South Korea, Kim (1997) believed that with their significant financial resources, conglomerates provided the necessary investments for rapid technological catch-up.

Leveraging their knowledge of the Taiwanese catch-up, Hou and Gee (1993) adopted a different view and asserted that the existence of a large number of Small and Medium-sized Enterprises (SMEs) stimulated the rapid pace of technological learning.

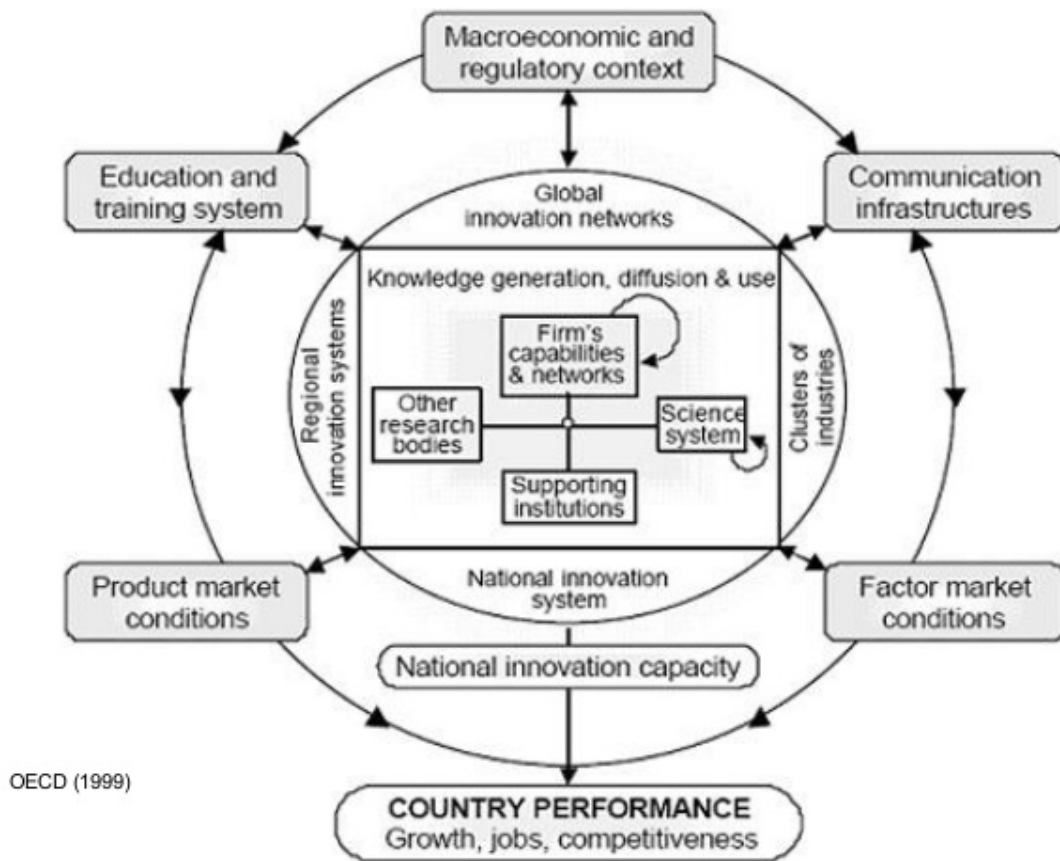
Wong (1992) and Hobday (1995), pointing to Singapore, stressed the importance of the presence of multinational companies (MNCs) in order to stimulate the development of local firms.

The World Bank (1993) had also highlighted what they thought were the common factors that led to "*The East Asian Miracle*", namely (i) prudent macroeconomic policies, (ii) public policies fostering human resources development and high savings and (iii) an orientation

towards exports. However, the approach of highlighting common factors to technological catch-up has been widely criticized (Wong, 1999).

Each of these three economies managed to catch up by adopting a different strategic approach to industrial innovation development and therefore different approaches when it comes to firm strategies, state policies and to the structure of the innovation network (Wong, 1999). Each country managed to accomplish their own “*East Asian Miracle*” by adopting sound and relevant innovation policies to develop a performing National Innovation System (NIS) (See Figure 1) (Wong, 1999). Fagerberg (2015) defines innovation policies as all the policies that have an influence on innovation.

Figure 1: National Innovation System - OECD



Source: OECD (1997)

Instead of a single generic path for rapid technological catch-up, Wong (1999) asserts that the examples of South Korea, Taiwan and Singapore point to multiple generic paths to technological catch-up and therefore to different supporting innovation policies. He also observes strong similarities within countries and argues that this is due to the fact that firms from a same country are influenced by the same NIS and policies.

In sum, Wong (1999) argues that a country's technological catch-up is influenced by the nature of a country's NIS, and vice versa. Therefore, national innovation policies heavily influence the technological catch-up of firms.

Wong (1999) illustrates its research with multiple examples. Taiwan, for example, adopted a *SME – Public Research Institute (PRI) Innovation Network model*. This model involved the promotion of indigenous SMEs together with a large development of PRIs in order to facilitate technology absorption, transfer and cooperative R&D to support SMEs.

2.3 China's policies for technological catch-up¹

Aware of its innovation challenge, the Chinese government has increasingly focused its attention on improving innovation since the 1980's by adopting a variety of unique and "experimental" industrial and innovation policies (Fisch, Block & Sandner, 2017). Indeed, the output of innovation policies has increased drastically since the 1980s. Between 1980 and 2005, the number of innovation-related policies has increased from 17 to 200. These policies were financial, tax & fiscal policies, Science and Technology (S&T) policies and industrial policies

The early Chinese innovation policies were, however, relatively ineffective as shown by the initial S&T and industrial policies. A lack of coordination between Chinese institutions coupled with a number of misalignments between incentives and goals inside different Chinese ministries led to a lack of implementation effectiveness.

One of the most notable Chinese innovation policy is "*market in exchange for technology*" policy, which granted foreign multinationals an access to the Chinese market in exchange for technology (Zhang, 2017). However, the effects of this policy are inconclusive. While Hu and Jefferson (2001) and Cheung and Lin (2004) find robust a positive influence of Inward FDI (IFDI) on indigenous firms innovation of new products and patents application in China, respectively, De La Potterie and Lichtenberg (2001) and Chen (2007) find no robust or negative effects of IFDI on indigenous firms' innovation capabilities. Additionally, Fu (2008) argues that inward FDI (IFDI) has played a significant role in the development of innovation capabilities in the coastal region while inland regions did not register a similar improvement in their innovation capabilities. According to him, the low technology content of these FDIs and the lack of absorptive capacity and complementary assets are to blame. However, Chen (2007) finds no strong relationship between IFDI and spillover effects in any

¹ Zhang (2016)

Chinese regions. It is argued that Chinese companies initially lacked the absorptive capacities for this policy to be effective (Zhang, 2016).

The year 2006 marked a turn in the Chinese innovation policies. Indeed, this was the first time that China introduced the term “*Indigenous innovation*”. The aim of the Medium and Long-Term Plan for Science & Technology Development (2006-2020) is to promote China’s technological self-sufficiency by studying advanced foreign technologies as a key strategic element. A greater focus was laid on market-oriented and enterprise-led innovations (See figure 1), but also on developing the services sector, shifting towards greater value-adding activities.

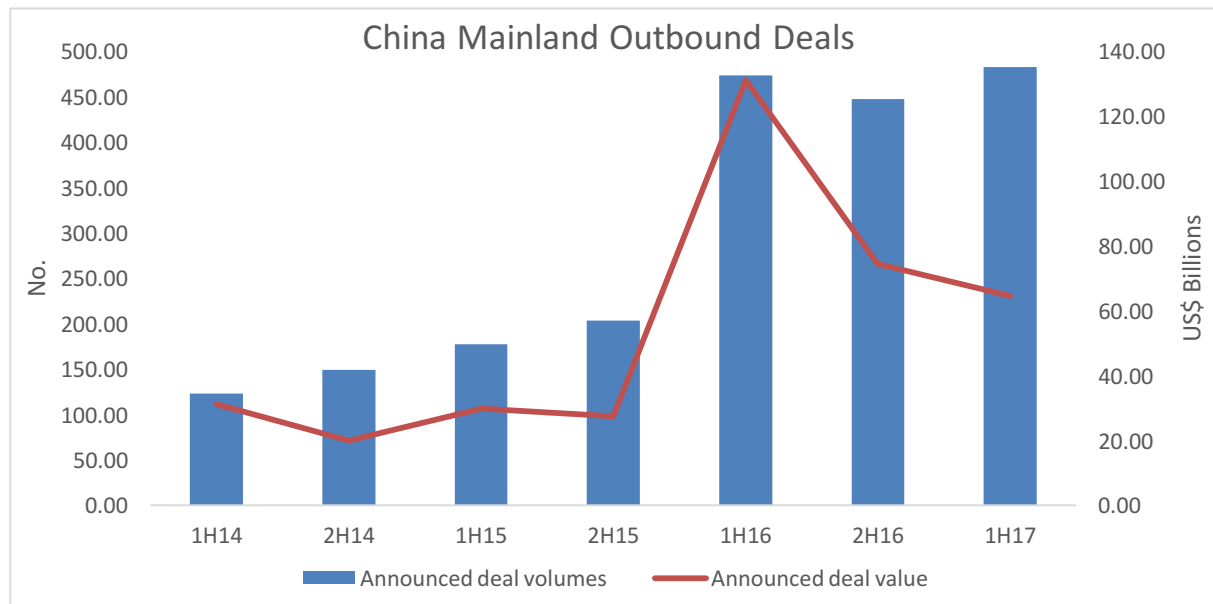
Most importantly, China released its “Go Global” policy in 2001, which encourages Chinese companies to invest abroad. Liu and Deng (2014) argue that the Chinese government plays an important role in the internationalization of Chinese companies. The goal of that policy is to secure natural resources and to improve the competitiveness of Chinese companies. In order to support these goals, different measures were adopted. Industries were rationalized by the State-Owned Assets Supervision and Administration Commission (SASAC) in order to reap the advantages of economies of scale and Chinese companies were given easy access to grants and other credits with advantageous conditions through public national banks. Moreover, strategic M&A were not only supported but encouraged in order to enhance Chinese companies’ brand recognition, innovation capabilities and managerial capabilities (Defraigne, 2012). Supporting policies such as tax cuts, grants and subsidies were introduced. A large number of high profile Chinese M&A deals happened as a result: TLC acquired Thomson and Schneider, Lenovo acquired IBM’s personal computer business unit, Geely acquired Volvo and other companies such as Huawei acquired innovative SMEs located in high-tech zones (Defraigne, 2012).

2.4 Chinese companies’ cross-border M&A spree

Chinese multinational companies (MNCs) have indeed increased the number of their cross-border M&As significantly in recent years. According to Zheng, Wei, Zhang and Yang (2016), the number of completed cross-border M&As increased from 36 to 146 between 2000 and 2010. PwC (2017) figures show increasing outbound deal volumes (393%) and values (200%) between 2014 and 2017 (figure 2). Anderlini (2015) goes as far as stating that China could potentially end up in the number one spot in terms of cross-border investments by 2020. While these figures are impressive, it should be noted that out of 100 Chinese

companies, only 17 completed an outbound transaction, and only 6 have conducted more than three, compared to 31 and 18 for Indian companies (Dietz, Orr & Xing, 2008).

Figure 2: Chain Mainland Outbound Deals



Source: PwC (2017)

According to Rui and Yip (2008), Chinese companies' acquirers are mainly large enterprise groups, possessing certain competitive advantages at an international level. They mainly acquire firms from developed economies facing strategic or financial difficulties. These deals are concentrated inside major industries (Resources & Energy, Telecommunications, Electronics, Home appliances and Automotive).

This increasing number of acquisition has not only drawn the attention of the scholars, but also from the public (Burghart & Rossi, 2009). The acquisition of Kuka by the Chinese conglomerate Mideas illustrates this perfectly. It had the German government wary over a Chinese company taking over a robotics company with industrial data (Weinland & McGee, 2016). The United States of America has also voiced security, economic and popular political concerns over Chinese investments, which boost a "*protectionist sentiment and alarmist theories of Chinese intentions*" (Mellahi, Frynas, Sun & Siegel, 2016). The acquisitions of western targets by Chinese conglomerates receives a wide criticism. The main criticisms focus on (i) the state ownership of Chinese firms that are thus backed by the Chinese government, which in turn results in an unfair competition in global takeovers, on (ii) their high levels of debt and on (iii) their inexperience (Deng, Yang, Wang & Doyle, 2017).

According to the literature, Chinese companies are after strategic assets that include knowledge bases, technologies, brands, management capabilities and others (Agyenim,

Wang & Yang, 2008; Deng, 2009; Nicholson & Salaber, 2013; Cui,; Burghart & Rossi, 2009; Deng et al. 2017).

Zhen (2013) argues that a large number of recent Chinese acquisitions flopped. The author lists different reasons for these failures, among which the most important are the cultural distance and failed post-merger integrations. However, not all Chinese acquisitions flopped: He, Rothenbuecher and Luedi (2015) from A.T.Kearney argue that Chinese companies have also managed to register successful M&As. For example, Lenovo acquired IBM's personal computer division and is now a leading global computer manufacturer.

In light of the information above, the question of the effectiveness of these acquisitions on Chinese companies's innovation performances in the context of China's technological catch-up remains unclear (Fisch, Block & Sandner, 2017).

3. INNOVATION AND CROSS-BORDER M&A

To understand what drives the success of M&As on the acquirers' innovation performance and formulate hypotheses, I will first review the literature on M&As, their motives, challenges and success factors. Secondly, I will review the literature on the innovation process inside companies. Finally, I will review the existing literature on M&As and innovation performance.

3.1 Foreign Direct Investment and Cross-border M&A

3.1.1 What are Cross Border M&As

The terms “mergers” and “acquisitions” are often used interchangeably in the literature. Sherman and Hart (2006) argue that the distinction ‘*may not actually matter*’ since the net result is the same, i.e. ‘*two or more companies that previously had separate ownership operate as one firm after the M&A deal takes place, usually in order to attain some strategic or financial objectives*’. Cross-border M&As constitute Foreign Direct Investments (FDI).

3.1.2 What are the motives behind Cross Border M&As?

Since cross-border M&As are a type of FDI, I will first shortly review the different motives for FDIs, then, I will narrow the literature review to M&A motives. A summary can be found in table 1.

The dominant taxonomy of FDI motivations is the *OLI Paradigm* of Dunning (1993, 1997). It can be used to describe why (Ownership advantages), how (Internalization advantages) and where (Location advantages) a firm decides to internationalize via FDI. Dunning (1993) lists four generic motivations for FDIs.

Resource seeking: A resource seeking investments aims at acquiring resources that are not or hardly available at home, or at a higher cost. These resources can include natural resources and raw materials, but also labor.

Market seeking: This motive encompasses firms that are looking to exploit market that have a significant potential (size and growth) (Gupta & Govindarajan, 2000), but also firms that follow important clients and suppliers abroad, to gain market knowledge or to discourage competitors from exploiting the market. It is worth mentioning that firms that want to exploit a market do not necessarily have to directly invest: they can also export and license.

Efficiency seeking: This type of motive happens when a firm “*take advantage of differences in availability and costs of traditional factor endowments in different*

countries” or when “they take advantage of the economies of scale and scope and of differences in consumer tastes and supply capabilities” (Dunning, 1993, p.60).

Strategic asset seeking: Strategic asset seeking investments aims at acquiring and complement a technological base and other strategically important assets (managerial know how, brands...). Amit and Schoemaker (1993) define strategic assets as firm-specific resources and capabilities that are difficult to trade and imitate, scarce, appropriable and specialized.

Luo and Tung (2007) take a narrower lens and focus on the internationalization of emerging markets’ multinationals. According to them, these multinationals engage in an internationalization pattern that they call *springboarding*, where emerging countries’ multinational companies use internationalization as a mean to acquire strategic resources, overcome local institutional, market constraints, their latecomer disadvantages and their lack of competitiveness. Springboarding is designed deliberately to facilitate firm growth as part of a long-term strategy to establish a solid position in the market place. Springboard, contrarily to leapfrogging, seeks more strategic gains beyond overcoming the latecomer advantages. It links a firm’s international expansion with its home base. The author take the example of China’s TLC, Lenovo, ZTE and Haier that have not only re-organized themselves for their global operations, but have also re-branded home-made products after using the technologies from cross-border M&As.

A number of scholars have explored the motives behind M&As. According to Calipha, Tarba and Brock (2010), the motives behind M&As are (i) to realize synergies, (ii) for managerial self-interest or (iii) hubris. They decompose synergies into 6 different types:

Shared know-how: Companies can benefit by sharing knowledge and/or skills.

Shared tangible resources: Sharing capital and/or resources can save companies significant amount of money.

Pooled negotiating power: Companies can leverage their size to increase their bargaining power over their suppliers by reducing cost or increasing quality.

Coordinated strategies: Coordinating the strategic alignment through M&As can be a powerful tool for companies to put pressure on the competition.

Vertical integration: Companies can reduce inventory cost, speed product development, increase capacity utilization and improve market access.

Combined business creation: By combining their know-how, extracting different activities from their units and recombining them can result in facilitated new-business creation.

Boateng, Qian and Tianle (2008) adopt a different approach to the classification of the motives behind cross-border M&As:

Access and acquisition of resources and technologies. Numerous studies, using the resource-based view of the firm (Hennart, 1991) and the organizational learning perspective (Vermeulen & Barkema, 2001) identify the acquisition of new capabilities and knowledge as key M&A motives.

Diversification of operational and financial risks through geographical expansion as a second motives for cross-border M&As.

faster entry modes into foreign markets: Cross-border M&As can help a company build a quick competitive presence by reducing difficulties related to the liability of foreignness (Zaheer, 1995), different business practices and other institutional constraints.

Realize synergies: Synergies are a broad concept that encompasses different value creating possibilities, such as economies of scale, economies of scope, increased market share and bargaining power, increased brand recognition, sharing complementary asset bases etc.

Rui and Yip (2008), focusing on Chinese companies' motives specifically, argue that Chinese companies “*use cross-border M&As to acquire strategic capabilities to offset their competitive weaknesses and leveraging their unique ownership advantages, while making use of institutional incentives and minimizing institutional constraint*”. They dissect the motives as follows:

Capability acquisition and M&A: The Resource-based view of the firm sees resources and capabilities inside a firm as the determinant of its competitive advantage (Barney, 1991). It views strategic assets, which are firm-specific resources and capabilities that are difficult to trade and imitate, scarce, appropriable and specialized (Amit & Schoemaker, 1993), particularly important in this respect.

“*Firms are constrained in their development of internal resources (Nelson & Winter, 1982) and in how to acquire them on open markets where few of these resources exist as single entities.*” Acquiring entire firms to extract the desired value from the target's resources is therefore necessary.

This rationale is particularly relevant for latecomers multinational companies like Chinese multinationals. As they possess fewer strategic assets than their foreign rivals and their home country cannot generate these assets, acquiring foreign assets becomes an interesting alternative (Young, Huang & McDermott, 1996). This is why Chinese firms are engaging massively in strategic-asset seeking FDIs (Deng, 2007).

Ownership advantage and M&A: Latecomers multinationals usually do not have the ownership advantages from Dunning's (1993) OLI paradigm (see above). However, Rui and Yip (2008) argue that they have other competitive advantage that they can leverage, such as the lower costs of labor relative to productivity.

Chinese multinationals have additional advantages. China has an advantage due to the government's investments in science & technology and the country's "*strength and numbers*" in technical education. Moreover, the government's ownership and financial support for investments provides access to cheap finance for Chinese companies.

It can be observed that Chinese companies' target are often reconfigured in order to exploit Chinese advantages.

Strategic choice and M&A: M&As are often favored by companies to acquire tangible and intangible assets, not only to realize synergies but also to pre-empt their competitors. M&As offer the opportunity to acquire not only a single asset, but "*an entire system of knowledge under unified control*" (Hitt et al., 2001).

Rui and Yip (2008) argue that Chinese firms tend to prefer M&As for different reasons. First, because their institutional environment is drastically different from the one of firm's they try to imitate, it makes it hard for them to develop new capabilities. Secondly, the pressure from new entrants increases their urge to develop new capabilities (Nolan, 2001). Finally, Deng (2004) argues that Chinese companies have to develop multiple capabilities at once. Acquisitions provide an easy and fast way to obtain this set of capabilities.

Entrepreneurship and M&A: Thomson & McNamara (2001) argue that corporate entrepreneurship, recognized as a basis for competitive action and strategic choice (Thomas, 2007) plays a central role in the integration of M&As. "*The role of managers as corporate entrepreneurs should affect foreign acquisitions by Chinese firms*" (Rui & Yip, 2008).

An increasing ability to recognize their strategic environment and an increasing stock of managerial skills has been gained by Chinese managers from their competition with

global giants (Cheng & Liu, 2006). Rui & Yip (2008) argue that the desire of Chinese management to gain entrepreneurial and managerial freedom is highly likely to push them to internationalize and engage in foreign M&As.

External environment, institutions and M&A: The success of strategic decisions are determined by the external environment (Aldrich, 1979).

China's institutional constraints constitute the basis of firm's strategic choices (Biediger et al., 2005). Lack of intellectual property rights (IP rights) discouraged firms to invest heavily in R&D. This is a reason why the Chinese government failed to organize a stable and well established R&D system from the national to the firm level. This prompted the need for Chinese companies to access their needs from foreign firms.

China also presents different institutional advantages. There is a strong government support (i) for Chinese firm's globalization and acquisition of foreign assets, but also in the form of (ii) diplomatic support, access to financial resources and (iii) access to state-supported scientific research. Chinese firms can benefit from (iv) their state ownership without losing strategic autonomy and from (v) the streamlining of administrative rules and regulations regarding outward FDIs (Rui & Yip, 2008).

In summary, scholars have found a large number of motives for cross-border M&As. Rui and Yip (2008) find that besides foreign market access, the motives behind Chinese M&As are mainly to acquire strategic assets, which Amit and Schoemaker (1993) define as “*firm-specific resources and capabilities that are difficult to trade and imitate, scarce, appropriable and specialized.*”.

Table 1: Summary of CBMAs drivers

<i>Sources</i>	<i>Drivers</i>
<i>Dunning (1993)</i>	Resource-seeking, Efficiency-seeking, <i>Market-seeking & Strategic-asset seeking.</i>
<i>Luo & Tung (2007)</i>	<i>Strategic resources acquisition, Overcoming local constraints & Overcoming lack of competitiveness.</i>
<i>Calipha et al. (2010)</i>	Managerial self-interest, <i>Hubris & Synergies</i> (Shared know-how, shared tangible resources, increased negotiation power, combined strategies, vertical integration & joined business creation).
<i>Boateng et al. (2008)</i>	<i>Acquisition/access to resources and technologies, Fast entry mode, Synergies realization & Risk diversification.</i>
<i>Rui & Yip (2008)</i>	<i>Strategic assets acquisition, Ownership advantages, Strategic moves, Entrepreneurship & External environment and institutions.</i>

Note: Drivers indicated in *italic* are found to be relevant fore Chinese CBMAs by the literature.

While most of these sources indicate relevant factors in the context of Chinese CBMAs, none appear to fully capture the different motives behind Chinese CBMAs. Combining these insights, I have recombined some the drivers in a way that represents the Chinese CBMAs context: (i) Acquisition & access to resources, technologies and other strategic assets (Boateng et al., 2008; Dunning, 1993), (ii) quick access to market (Boateng et al., 2008, Dunning, 1993), (iii) ownership advantages (Rui & Yip, 2008) and (iv) external environment's stimuli (Rui & Yip, 2008). As mentioned above, the main drivers remain the two formers.

3.1.2 Cross Border M&As success factors

Different factors can affect the success or the failure of cross-border M&As. A summary of these can be found in Table 2. The first, and probably the most controversial factor is the *cultural distance*. The relationship between national cultural differences and long-term CBMA performance is complex. The literature is thus divided between the scholars who find a negative relationship, and those who find a positive relationship.

The rationale of Balogh (2006) and Ahern, Daminelli and Fracassi (2015) represents fairly well scholars who find a negative relationship. They argue that differences in cultures constitute barriers to integration and increased costs of integration. Indeed, significant and unexpected differences in terms of communication, business practices etc. can lead to a lengthy integration process or even to a 'culture shock', making it difficult for companies to bring about the synergies they were expecting. The roots of the national culture play a critical role in the integration process as "*The social medium in which the company operates strongly influences the methods used by the company. Therefore, it should be interpreted not only the evident internal and external factors, but even the social embeddency of the organization in order to understand its market behavior and the role of cultural values in the whole process*" (Heidrich, 2002). Therefore, cross-border M&As made by companies being mindful of the potential challenges posed by cultural distance are more likely to realize their synergy potential. Cultural openness and awareness are thus important success factors. Balogh (2006) adds that cultures are extremely difficult to change and to influence: the starting distance between the two cultures is therefore a critical factor.

Evenett (2003) also emphasizes the importance of *administrative distance* as it can affect the success of the transaction in similar ways than the cultural distance.

Other scholars believe that cultural distance can translate into synergies. Chakrabarti, Jayaraman and Mukherjee (2009) find that the higher the distance, the better the long-term

performance. This contradicts the rationale above, but corroborates the findings of Stahl and Voigt (2008) and Teerikangas and Very (2006). The potential reasons for such a results, according to the authors, are (i) post-deal cultural synergies that improve the performance because of an increased diversity in organizational strengths (Resource-based view of the firm, implementation of “the best of both cultures”...) and (ii) a pre-deal awareness of the cultural challenge that leads to better cultural integration management (Larsson & Risberg, 1998) and a selection bias, where deals with a high cultural distance are completed only if they have a substantial synergy potential. However, the example of Thomson’s acquisition by TCL (Deng, 2010) shows that one has to be careful with these results.

In this paper, the latest perspective will be adopted. Indeed, while both sides have strong arguments, I believe that synergies could merge if the post-acquisition integration is carefully executed. Indeed, innovation is born from the recombination of existing knowledge (Ahuja & Katia, 2001; Fisch et al., 2017). Cultural differences may therefore result in different perspectives on the existing knowledge, thereby creating new knowledge recombination. The idea that cultural differences may foster innovation is also mentioned in organizational theories on how to foster reverse innovation (Verdin, 2015).

Similarly, the literature has found the existence of a *Liability of Foreignness* (LOF) that negatively affected Multinational Companies (MNCs) performance in the context of FDIs. Zaheer (1995) think that the LOF impacts MNCs through three different mediums: (i) spatial distance, (ii) unfamiliarity with the foreign environment and (iii) the costs resulting from the host country’s nationalism or differential treatment towards the MNC. Mellahi et al. (2016) argue that Chinese MNCs have often found themselves victim of differential treatments due to protectionist sentiments and alarmist theories about Chinese MNCs’ intentions. Therefore, a LOF in the form of *differential treatment and protectionist behavior* could negatively influence the success of Chinese CBMAs.

Human resources in the post-merger integration (PMI) is the second factor mentioned by Balogh (2006). Employees’ problems can cause from 50% up to 66% of all M&As failures. Merging the two cultures, transferring skills, demotivation and departure of the acquired company’s employees, unclear responsibilities and conflicts, ... On average, 70% of the acquired company’s higher management leaves the company, often to competitors, after 5 years. However, Liu and Woywode (2013) argue that China’s light touch integration method, which they argue is used in a vast majority of cases, reduces the departure of top management and possible integration-related conflicts. This light touch integration is adopted

because of Chinese companies' low uncertainty avoidance and because of their goal to learn from their acquisition on the long term. This integration mode enables the target's management to keep its decision-making freedom.

Balogh (2006) also points to the companies' *relative size* as a potential success factors. According to Kleinert and Klodt (2002), the larger the acquired entity compared to the acquiring one, the worse the acquisition will be in terms of profitability and employment growth. The rationale behind this argument is that smaller entities, everything else being equal, are easier to integrate into an active organization. Conn and Kosh (2001) confirm this relationship for cross-border M&As. However, Agrawal and Jaffe (2000) find no connections between relative size and the transaction performance.

By adopting a financial lens, scholars argue that *paid premiums* can influence the success of the transaction. Indeed, the larger the premium, the more the synergies will be absorbed (Balogh, 2006).

Bakker and Limmack (2001) find that experienced acquirers registered significantly higher returns than inexperienced acquirers. This pattern holds for cross-border M&As but is not statistically significant (Conn et al., 2001). This pattern would suggest the existence of a learning curve. Others like Halebian and Filkenstein (1999) find U-shaped curve, indicating that first-time acquirers are more successful than companies that have completed multiple transactions. However, after a certain point, the post-transaction performance increases again. *Previous M&A experiences* may thus influence their success.

Balogh (2006) argues that in the case of cross-border M&As, the more the *economic situation of the target's country* is favorable, the more it suggests a favorable economic environment, which is likely to influence the success of the M&A.

The *industrial direction*, which refers to the relatedness of activity fields of the companies involved in the transaction (horizontal, vertical or conglomerate relationship) can have a significant effect on the success of a M&A (Healy et al., 1992). Transactions that involve firms with significantly overlapping businesses tend to outperform transactions that do not involve such overlaps. Conn et al. (2001) find that for cross-border M&As, horizontal deals tended to outperform non-horizontal deals.

Balogh (2006) argues that *geographical distance*, by affecting the probability of having a common language or structural ties, might affect the effectiveness of the M&A.

The *international character of the transaction* can also make M&As more difficult. Indeed, cross-border M&As may involve in additional managerial complexity (Balogh, 2006).

Cross-border M&As may also be more efficient in the case where the acquirer's company had *previous international experience* (Balogh, 2006).

Focusing especially on Chinese strategic assets seeking cross-border M&As, Deng (2010), identifies *absorptive capacity* as a key issue and success factor. A firm's absorptive capacity, according to Cohen and Levinthal (1989, 1990) is its ability to “*recognize the value of new, external knowledge, assimilate it and apply it to commercial ends*”. Strategic assets often are tacit, specific or complex, which makes absorptive capacity critical in M&As meant to acquiring strategic assets.

Table 2: M&A success factors & Relevance

<i>Factors</i>	<i>Effect on LT performance</i>	<i>Relevance</i>	<i>References</i>
<i>Cultural Distance</i>	+/-	High	Balogh (2006), Ahern et al. (2015), Chakrabarti et al. (2009)...
<i>Liability Of Foreignness</i>	-	High	Zaheer (1995), Goerzen et al. (2013), Melahi et al. (2016)...
<i>Relative Size</i>	+	High	Balogh (2006)
<i>Paid Premium</i>	-	High	Balogh (2006)
<i>Prior M&A Experience</i>	+	High	Baker and Limmach (2001)
<i>Economic Situation in Target company's country</i>	+	Moderate	Healy et al. (1992)
<i>Industrial Relatedness</i>	Inverted U relationship	High	Balogh (2006)
<i>Prior International Experience</i>	+	High	Balogh (2006)
<i>Absorptive Capacity</i>	+	High	Cohen and Levinthal (1990), Deng (2010)
<i>Human Resources</i>	n.a.	Low	Balogh (2006), Liu and Woywode (2013)

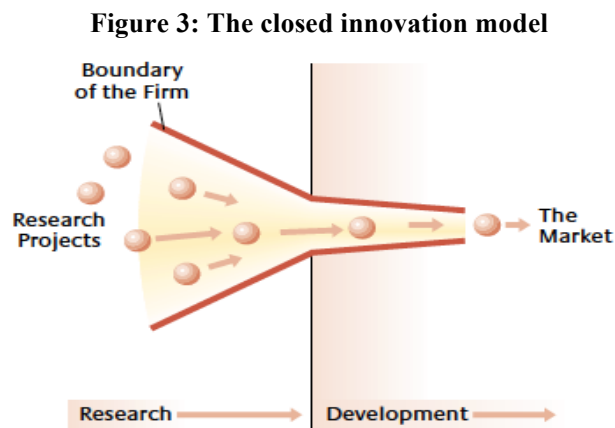
3.2 Innovation

3.2.1 What is innovation?

According to Baregheh, Rowley & Sambrook (2009), innovation can be defined as “*the multi-stage process whereby organizations transform ideas into new/improved products, services or processes, in order to advance, compete and differentiate themselves successfully in the market place*”.

According to Ahuja and Katila (2001), firm-level theories of technical change explain a firm's innovativeness as a direct outcome of its knowledge base (Henderson & Cockburn, 1996).

Cherbrough (2003) depicts the classical innovation process as a company that generates, develops and commercializes its own ideas in a closed environment, aggressively protecting the outputs with IP protection mechanisms. Performing better than its competition enabled the company to generate more profits, that were reinvested in R&D, thereby forming what Cherbrough (2003) called a “virtuous circle of innovation”. This model is the closed innovation model (figure 3). It used to hold during the 20th century.



Source: Cherbrough (2003)

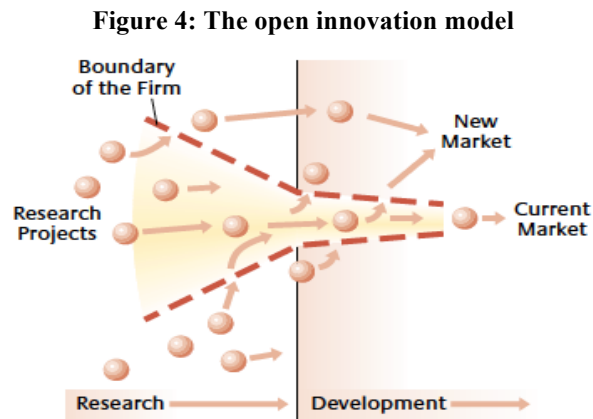
At the end of the 20th century, the increased mobility and number of knowledge workers as well as the growing abundance of venture capital made it increasingly difficult for companies to maintain their virtuous circles of innovation. The boundaries between a firm and its environment became porous. In this model of open innovation (figure 4), firms can commercialize internal and external ideas by deploying outside and in-house pathways to the market. Additionally, ideas can be brought from outside the firm to be commercialized.

According to Cherbrough’s (2003) conceptualization, open innovation offers companies with the opportunity to increase their knowledge inputs and their innovative outputs. According to Ahuja and Katila (2001), such mechanisms offer the opportunity for companies to enjoy economies of scale, scope and opportunities for recombination benefits.

Companies engaging in cross-border M&As to acquire strategic assets such as a knowledge base are bringing ideas from the outside for internal use and engaging in open innovation. Vermeulen and Barkema (2001) argue that M&As in particular enable firms to overcome transaction costs from market failures when it comes to exchanging firm-specific intangible assets or information. Indeed, tacit (in opposition to explicit) information and knowledge is difficult to effectively acquire in arm’s length transactions. Ranft and Lord (2000) argue that tacit knowledge is embedded in the human capital and social mechanisms of the target firm, which makes the human capital of a target firm extremely important when acquiring tacit

knowledge. Acquisitions, assuming they result in sufficient employee retention, are therefore an efficient mean to overcome these difficulties (Vermeulen and Barkema, 2001).

Referring back to the theory of technical change (Ahuja & Katila, 2001), by acquiring an existing knowledge base, acquiring companies increase their innovativeness performance by expanding their knowledge base.



Source: Chesbrough (2003)

3.3 M&A and innovation

3.3.1 Cross-border M&A and acquirer's innovation performance

Scholars studying the market for corporate control have researched the effect of acquisitions on innovation output (Hitt et al., 1991, 1996; Hoskisson, Hitt & Ireland, 1994). The majority of these studies have found a negative impact of acquisitions on the post-acquisition innovation output, which was measured with patent outputs or new products and processes outputs. The causes identified were agency problems, the reduction of managerial commitment and the reduced energy of the companies' management due to the integration effort and due to the fear of making long term commitments during the integration process. Therefore, acquisitions have sometimes been referred to as "poison pills" for innovation (Hitt et al., 1991).

Ahuja and Katila (2001) measured the impact of different target-specific variables on the acquirer's innovation performance, which was measured as the acquirer's patenting intensity. They first find that contrary to previous research, when the characteristics of the acquisition are accounted for, an acquisition can have a positive impact on the acquirer's innovation performance. The absolute size of the target's knowledge based was found to have a positive impact of the acquirer's innovation performance, while the relative size was found to have a negative impact. The knowledge base relatedness between the acquirer's and the target's had an inverted U-shaped relationship: A high similarity or heterogeneity between the target's

and the acquirer's knowledge base had a negative impact on the acquirer's innovation performance. However, a moderate level of relatedness was found to have a positive impact. While they believe this is due to the potential for cross-pollination and combination, Cassiman, Colombo, Garrone and Veugelers (2003) believe that technology relatedness can also affect the innovation output through the competitive dynamics. They argue that firms with similar knowledge bases in a similar technology field will lessen the competitive intensity and will rationalize their R&D activities, which in turn results in a lower R&D productivity and return on R&D expenditures. They find that companies with complementary technological capabilities are more likely to increase their innovative performance through higher R&D output, greater speed in new products and processes introductions, more intense patenting activity and greater stock of capabilities.

Prabhu, Chandy and Ellis (2008) adopt a focus on the pharmaceutical industry and find that acquisitions can boost the acquirer's innovation output (measured by the number of new products in the first phase of tests) when they possess a deep internal knowledge base and therefore an effective absorptive capacity. For firms with lacking absorptive capacity, the acquisition has no effect on the innovation output and "*acts as its own placebo*" (Prabhu et al., 2005). They also find that a firm's knowledge base breadth has more effect on its combinative capabilities than its depth.

Bena and Li (2014) find a positive impact of a M&A on the acquirer's innovation performance, which is measured as the patent output, when there is a pre-M&A technology overlap between the acquirer and the target.

McCarthy and Aalbers (2016) find an overall net positive effect of acquisition on the acquirers innovation performance, measured by the number of patent applications. However, they also find that 79% of acquisition do not improve the innovative performance of the firm, of which 33% resulted in a worse innovation performance. Their paper also suggests that cross-border technology acquisitions tend to perform better than local acquisition. However, they also observe a diminishing innovative performance with the geographic distance.

3.3.2 Cross-border M&A and acquirer's innovation performance – specificities of Chinese M&As

Anderson, Sutherland and Severe (2015) find that the acquisitions of developed economies' firms by Chinese companies result in a significant increase on the patent counts in the domestic Chinese group, while it does not affect the target's patent count.

Fisch, Block and Sandner (2017), exploring the question focusing on Chinese cross-border M&As find no overall effect on the acquirers' innovation performance, which is measured by the patent output. More specifically, they find that the absolute size of the target's knowledge base tends to increase the innovation output. However, they find that a large knowledge base negatively affects the innovation output past a certain point, which is consistent with the findings of Ahuja and Katila (2001). Their research also suggests that acquiring geographically and culturally distant firms is beneficial for Chinese firms. This finding is puzzling for two reasons. First, it does not seem to be consistent with McCarthy and Aalbers (2016) findings. They argued that the innovative performance decreased with the geographical distance. Second, the integration of culturally and geographically more advanced knowledge requires a large amount of absorptive capacity (Fisch, Block & Sandner, 2017), which is not consistent with Deng's (2010) characterization of Chinese companies. Fisch, Block and Sandner (2017) argue that Chinese companies probably go around their absorptive capacity issues by adopting a singular approach to post-merger integrations. Indeed, Chinese companies are known to adopt a partnership approach, granting a significant autonomy to the acquired firm and often keeping the old management in place thereby minimizing integration problems. Finally, they find that State-owned companies tend not to profit from an increase in innovation performance. In cause: inefficient structures, absence of managerial knowledge and unhealthy ties between business and politics (Choi et al., 2011).

4. HYPOTHESES

4.1 M&A as a mean to improve innovation performance

According to the resource-based view of the firm, a company's competitive advantage is rooted in its strategic assets (Barney, 1991), which Amit and Schoemaker (1993) defined as “*the set of difficult to trade and imitate, scarce, appropriable and specialized resources and capabilities that bestow the firm's competitive advantage*”. Strategic assets include reputation, buyer-supplier relationships, tacit knowledge, R&D capabilities, brand name, knowledge and proprietary technologies (Deng, 2009). These strategic assets can be created in-house, through cumulative experience and “learning by doing” (Dierickx & Cool, 1989), or through the factor market (Barney, 1986).

FDIs and particularly M&As are found to be the most effective mean for a firm to source these strategic assets (Chung & Alcacer, 2002; Wesson, 2004). Vermeulen and Barkema (2001) argue that M&As enable firms to overcome transaction costs from market failures when it comes to exchanging firm-specific intangible assets or information. In the case of tacit knowledge, they argue that the market for firms is more efficient than the market for resources. Zheng et al. (2016) add that CBMAs enable companies to gain control of assets that it could not reach in any other way and to develop organizational learning by acquiring, integrating, sharing and applying knowledge. For these reasons, CBMAs are viewed as the fastest way of reaching the desired goals when expanding internationally (Agyenim et al., 2008).

CBMAs have thus different advantages that enable companies access specific strategic assets quickly but also enable them to promote organizational learning.

It has also been found that Chinese companies engage in CBMAs for strategic-asset seeking motives. Therefore:

Hypothesis 1: Chinese companies engaging in CBMAs will see an improvement in their post-acquisition innovation performance.

4.2 Factors influencing post-merger innovation performance

Ahuja and Katila (2001) and Fisch et al. (2017) found that the characteristics of the target's knowledge base influence the acquirer's post-acquisition innovation performance. First, they argue that the absolute size of the target's knowledge base is positively related to the acquirer's post-acquisition innovation performance. The rationale behind this finding is that innovation is a process that involves a number of inputs (R&D expenses, ideas...) to generate outputs (products, processes, concepts...). Often, these inputs are re-combined with existing

knowledge inside the company. It follows that the larger the knowledge base of a company is, the larger will its re-combination possibilities be. Therefore:

Hypothesis 2a: *The acquirer's post-acquisition innovation performance is positively related to the target's knowledge base size.*

Ahuja and Katila (2001) and Fisch et al. (2017) also find the relative size of the target's knowledge base compared to the acquirer's to be relevant for the acquirer's post-acquisition innovation performance. It is argued that it is negatively related to the post-acquisition innovation performance. Indeed, the larger the knowledge base, the harder it will be for the acquirer to process it. The acquirer risks spending its energy integrating the knowledge base, diverting its focus from the current innovation activities. It follows that the acquirer's post-acquisition innovation performance risks being negatively impacted. Therefore:

Hypothesis 2b: *The acquirer's post-acquisition innovation performance is negatively related to the target's knowledge base relative size.*

Ahuja and Katila (2001) find that there is an inverted U-shaped relationship between the acquirer's and the target's knowledge base relatedness and the acquirer's post-acquisition innovation performance. The rationale is that the re-combination possibilities are null if the knowledge bases are similar, while the re-combination possibilities will be less likely to be useful if the knowledge bases are totally different and unrelated. Moreover, Cassiman et al. (2013) also find the knowledge bases relatedness to influence the competitive dynamics. They argue that competitors merging will likely reduce the competitive intensity and therefore the companies' efforts in innovation, while M&A that do not reduce an industry competitiveness will rather produce an increase in the companies' innovative efforts. It is therefore argued that a small degree of heterogeneity between the knowledge bases will positively influence the acquirer's post-acquisition innovation performance. Accounting for the type of data available, I formulate the following hypothesis:

Hypothesis 2c: *The relationship between the acquirer's post-acquisition innovation performance and the target's and acquirer's industry similarity is negative.*

Deng (2010) identified absorptive capacity as a key issue in Chinese CBMAs. A company's absorptive capacity describes its ability to identify, assimilate and use external knowledge. The better their ability to use external knowledge, the better will a company's post-merger innovation performance be. Prabhu, Chandy and Ellis (2008) measured pharmaceutical companies' absorptive capacity as a function of the size of their internal knowledge base. Therefore:

Hypothesis 3: The larger the acquirers' absorptive capacity, the better their post-acquisition innovation performance will be.

The post-merger integration process is viewed as a painful process for merging companies. Indeed, companies have their own routines and cultures, the integration process could thus lead to clashes of different cultures, processes and structures. However, going through such processes can bring a healthy dose of conflict and debate, resulting in the opportunity for a firm to go outside its of its way, breaking routine simplicity and fostering learning. Hence, organization that have extensive experiences in acquisition tend to develop better knowledge structures and decrease the rigidity of their structures and processes (Vermeulen & Barkema, 2001). Having prior M&A experiences could thus result in a more flexible and better performing organization. Vermeulen and Barkema (2001) argue that, in addition, companies that have gone through a number of M&A will have generated a significant experience in terms of screening and integration.

A successful integration is more likely to bring the expected synergies about (Liu & Woywode, 2013). It follows that:

Hypothesis 4: An acquirer's past M&A experience is positively correlated with its post-acquisition innovation performance.

While authors like Balogh (2006) argue that cultural distance can exert a negative effect on a post-acquisition performance, I decide to side with Chakrabarti et al. (2009) who argue that cultural distance can be conducive of innovation in the long term. The research that supported this view argued that cultural differences could result in post-deal cultural synergies in the form of an increased diversity in organizational strengths (Resource-based view of the firm, implementation of "the best of both cultures"...) (Stahl & Voigt, 2008; Teerikangas & Very, 2006).

There are also a number of other research like the one conducted by Azar and Drogendijk (2016) that find that when companies expand in new markets that are culturally different, it "*... triggers strategies for interacting and integrating with the market environment. These include producing and adopting innovations to processes and products and to organizational strategy, structure and administrative procedures to cope with the new environment and overcome uncertainties. These innovations and the associated competitive advantages improve firm*".

Therefore, I formulate the following hypothesis:

Hypothesis 5: The national cultural distance between the acquirer and the target is positively correlated with the post-acquisition innovation performance.

5. METHODOLOGY & DATA

This research is hypothetico-deductive. Through quantitative methods, I will find whether the evidence I have collected corroborates or falsifies the hypotheses stated above.

First, I will go over the data collection method and sources, treatment and selection. Secondly, I will describe the different variables collected that I have used during my analysis. When the data is a construct, I will briefly go over how it has been constructed. Finally, I will illustrate the method I have used to analyze the data.

5.1 Data collection, treatment and selection

My database was collected by using Bloomberg's M&A database and by specifying a time period between 2000 and 2016. Despite the fact that Chinese CBMAs have become more prominent since 2013, I believe that a five year period would result in a highly restricted sample after removing data with missing observations. The Bloomberg M&A database provided me with a list of deals containing important deal-specific information such as the name of the acquirers, of the targets, their respective industries, the date of the deals, the country of the target, the company's M&A profile, the status of the merger (pending, completed, cancelled)... The data extracted was filtered as follows. Bloomberg also listed participations in other companies in the forms of investments as M&As, these were ultimately erased due to the lack of information on the stakes involved only to keep strict M&A deals. Deals whose status was not completed were erased from the database. Acquiring companies with a nationality other than Chinese were erased, and deals whose destination were China, Honk-Kong and Macau were erased so that I was left with a database comprising of only Chinese CBMAs. Fields that were blanks in the information mentioned above were deleted from the database. This filtering considerably reduced the number of observations from 3014 to 201. Companies' financial and pre-M&A experience data were retrieved using Bloomberg's data.

Patent information for all companies inside my dataset were retrieved from the EPO's Espacenet online database, which is according to The University of Chicago's library (2017), the most comprehensive free database available, with over 60 millions patents available for over 80 countries. In case information was missing, the national patent office of the firm in question was used.

Information on Hofstede's cultural dimensions were retrieved from the country comparison tool on Hofstede's official website.

A final filter was applied: for any information required missing, the observation was erased. The size of the final database used is of 37 observations.

5.1 Variables

5.1.1 Dependent variable

The dependent variable, the *innovation performance of the acquiring firm*, consists of the cumulative number of patents introduced by the acquiring company during the 2 years following the acquisition. According to Ahuja and Katila (2001), a firm's patent represent a unique element of knowledge that it has created. It can therefore be used to measure a given firm's knowledge base and its performance in generating new knowledge. Integrating and generating knowledge also takes time. Therefore, Ahuja and Katila (2001) argue that the effect of the acquisition are likely to be felt in the years following the acquisition. While their research uses a 4 year lag, their results remain significant for a 2 year lag. Due to the size of my database I have decided to adopt a 2 year lag to accommodate more observations into it.

5.1.2 Independent variable

The *target company's knowledge base size* is measured by the number of patents it has filled at the time of the acquisition. Indeed, a company's patent base is representative of its knowledge base (Ahuja & Katila, 2001). Similarly, the acquiring company's knowledge base size is measured by using the number of patents filled by the acquirer at the time of the acquisition.

The *acquiring company's relative knowledge base size* is constructed as follows:

$$\begin{aligned} & \textit{Acquirer's knowledge base relative size} \\ & = \frac{\textit{Acquirer's patents filled at time of the acquisition}}{\textit{Target's patents filled at time of the acquisition}} \end{aligned}$$

The *knowledge base relatedness* of the acquirer and of the target is embodied in a dummy variable. This dummy variable takes the value "1" when the acquirer and its target are active in the same industry, and "0" when they are active in different industries. This measure is consistent with the insights from Cassiman et al. (2003), who find that knowledge bases relatedness influence the competitive dynamics. They argue that competitors merging will likely reduce the competitive intensity and therefore the companies' efforts in innovation, while M&A that do not reduce an industry competitiveness will rather produce an increase in the companies' innovative efforts.

Following Prabhu, Chandy and Ellis (2008), I use the acquiring company's knowledge base size at the time of the acquisition as a proxy for its *absorptive capacity*. As a reminder, a

firm's absorptive capacity, according to Cohen and Levinthal (1989, 1990) is its ability to "recognize the value of new, external knowledge, assimilate it and apply it to commercial ends". Deng (2010) and Prabhu, Chandy and Ellis (2008) argue that a firm's current knowledge stock, which is measured by the stock of patents in this case, is directly linked to its ability to identify and use external knowledge.

I use a construct based on the different Hofstede's (1980) cultural dimensions, which was first used by Kogut and Singh (1988), to measure the *national cultural distance* between the acquirer's and the target's national culture. The following formula was used:

$$CD_j = \frac{\sum_{i=1}^4 \left(\frac{(I_{ij} - I_{iu})^2}{V_i} \right)}{4}$$

The elements of the formula can be translated as follows: CD indicates the national cultural distance between a company from country j that acquires a company from country u. I stands for the score of each of Hofstede's four cultural dimensions. The difference is squared, then divided by the variance of that given dimension. The sum of these divisions are then divided by the number of cultural dimensions: 4. These dimensions are: power distance, individualism, masculinity and uncertainty avoidance.

An acquiring company's *previous experiences in M&As* is measured by two different variables:

- First, a dummy variable that takes the value "1" when the acquiring firm had previous M&A experiences, and "0" when it didn't.
- Secondly, I use the number of previous acquisitions experiences to account for the extent of a company's experience. Muehlfeld, Sahib and Van Witteloostuijn (2012) argue that companies can learn from both their successes and failures in M&As. These experiences enable them not to replicate their past mistakes and to complete more successful transactions.

A dummy variable is created to differentiate between *state-owned enterprises* (SOEs) and private companies. This dummy takes the value "1" when the company in question is a SOE and "0" when it is a private company.

Finally, I create an *interaction variable* by multiplying the national cultural distance variable with a M&A inexperience dummy variable, which takes "1" if a company has no previous M&A experience and "0" otherwise.

5.1.1 Control variable

As companies innovative outputs are not only tied to its M&A activity, my model needs to include additional major variables in order to account for important drivers of their innovation outputs.

Following Cherbrough's (2003) illustration of the firm's innovation process, it appears evident that a firm investing more inputs in the innovation process will deliver more output, everything else being equal. Therefore, like Ahuja and Katila (2001), I account for the *acquirer's R&D expenditures*. More precisely, I account for the R&D expenditures during the two years following the acquisition. Since innovation is a process and that past R&D expenditures may affect today's output, R&D expenditures during the years preceding the acquisition would have provided relevant insights. However, the limited information available on the acquirers present in my modest dataset made this operationalization difficult. Mezas (2002) indicated that a firm size could directly affect its performance through increased economies of scale and scope, easy access to capital and large cash reserves. Moreover, following the illustration of Cherbrough (2003), the output of a large firm having large inputs in the form of a larger workforce and greater resources, everything else being equal, will be larger than a small firm. Therefore, to account for these, I include the acquirers' *average assets* over the two years following the acquisition.

5.1 Operationalization

In order to see if the evidence collected corroborates or falsifies my hypotheses, I will use the following simple linear regression model that will be run through Stata®:

$$\begin{aligned}
 & \textit{Patent output}_{2\textit{years}} \\
 &= \beta_0 + \beta_1 \textit{Acquirer's knowledge base size} + \beta_2 \textit{Target's knowledge base} \\
 &+ \beta_3 \textit{Acquirer's knowledge base relative size} \\
 &+ \beta_4 \textit{Knowledge base relatedness} + \beta_5 \textit{National Cultural Distance} \\
 &+ \beta_6 \textit{M\&A Experience} + \beta_7 \textit{M\&A experience count} + \beta_8 \textit{Average assets} \\
 &+ \beta_9 \textit{R\&D expenditures}_{2\textit{years}} + \beta_{10} \textit{State - Owned Enterprise} \\
 &+ \beta_{11} (\textit{National Cultural Distance} * \textit{M\&A inexperience}) + \mu
 \end{aligned}$$

This model will first be ran without the interaction variable, which will be included in a second regression. This will enable me to observe the impact of this interaction variable on my main variable.

6. RESULTS

6.1 Descriptive statistics

Table 3: Correlations

<i>Variables</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
<i>1. Delta patents 2y</i>	1.0									
<i>2. Acquirer's patents</i>	.6150	1.0								
<i>3. Target's patents</i>	-.0884	-.1114	1.0							
<i>4. Relative patent base size</i>	-.1000	-.1047	.3092	1.0						
<i>5. Industry dummy</i>	.0050	.0140	-.2224	-.1662	1.0					
<i>6. National cultural distance</i>	.1673	-.0354	.0380	.0525	-.1558	1.0				
<i>7. M&A experience</i>	.1526	.1750	-.1447	.0880	-.1651	-.0264	1.0			
<i>8. M&A experience count</i>	.2875	.7619	-.1179	.0048	-.2011	.0222	.2923	1.0		
<i>9. R&D expenditures</i>	.3998	.3206	-.1044	-.0574	-.1484	-.1643	.1527	.4043	1.0	
<i>10. State-Owned Enterprise</i>	.0999	.1700	-.1502	-.0640	.1471	.1021	.3238	.4769	.3922	1.0

Table 4: Descriptive statistics

<i>Variables</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Delta Patents 2y</i>	300,49	620,06	0	2525
<i>Acquirer's patents</i>	597,97	1357,73	0	6393
<i>Target's patents</i>	224,65	687,37	0	3127
<i>Relative patent base size</i>	14,7	61,92	0	360
<i>Industry dummy</i>	0,32	0,48	0	1
<i>National cultural distance</i>	9,29	5,43	0,22	26,57
<i>M&A experience</i>	0,84	0,37	0	1
<i>M&A experience count</i>	5,92	9,03	0	53
<i>R&D expenditures</i>	21,61	4819,8	30,28	25064
<i>State-Owned Enterprise</i>	0,37	0,48	0	1

Number of observations: 37

Table 5: Count of companies with and without post-acquisition patent evolution

<i>Sample category</i>	<i>Delta patents 2y > 0</i>	<i>Delta patents 2y = 0</i>
<i>All companies</i>	31	6
<i>State-Owned companies</i>	11	2
<i>Private companies</i>	20	4
	<i>Patenting difference > 0</i>	<i>Patenting difference =< 0; (<0)</i>
<i>All companies</i>	27	10 (4)
<i>State-Owned companies</i>	10	3 (1)
<i>Private companies</i>	17	7 (3)

Number of observations: 37

I first address the results in table 3, which indicates the correlation between the variables I plan on using in my regression. The vast majority of the correlations in this table do not raise an alarm regarding the presence of multicollinearity. Only the interaction between variables 2 and 8 appears to be high (Tabachnik & Fidell, 2001). This potential problem is put aside for the moment and will be addressed in the next pages. The average assets variable had a correlation of 0.9 with the R&D expenditures and had to be dropped for obvious problems of potential multicollinearity.

Table 4 contains a summary of the main features of my variables. I can observe large variances for the patents-related variables. This illustrates the significant differences that can be observed by looking at my dataset. Indeed, only 8% (4) of the acquiring companies in my sample boast 4 digits figures when it came to the number of patents filled during the two years after the acquisition, while 75% (28) are below the average. This trend is similar when it comes to the acquirer's knowledge base at the time of the acquisition. 79% (29) of the acquirer in my dataset had figures below the mean, and 84% had figure below 1000 patents. This indicates that a few outliers are significantly affecting the rest of the dataset. The target's patent variable shows the same pattern with 87% (32) and 92% (34) respectively, together with the companies' relative knowledge base sizes. The R&D spending also seem to indicate the presence of outliers, unsurprisingly with the previous observations.

6.2 Model results

Table 6: VIF and 1/VIF results from full regression model

<i>Variables</i>	<i>VIF</i>	<i>1/VIF</i>
<i>Interaction variable</i>	20.85	.048
<i>M&A experience</i>	12.45	.080
<i>National cultural distance</i>	10.28	.097
<i>M&A experience count</i>	3.84	.260
<i>Acquirer's patent base</i>	3.05	.328
<i>State-Owned Enterprise</i>	1.74	.573
<i>R&D expenditures</i>	1.44	.696
<i>Patent bases relatedness</i>	1.32	.760
<i>Target's patent base</i>	1.25	.798
<i>Relative patent base size</i>	1.20	.836

Number of observations: 37

In table 5, we can see that close to 84% of my sample indicates a positive number of patents filled after the acquisition. This figure varies lightly when comparing private companies and SOEs among themselves, at 83.3% and 64.5% respectively. After running a series of t-tests, I observe that these three proportion of these proportion are statistically significantly higher than 50%. Interestingly, SOEs register the largest increase in their patent base in the two

years following an acquisition, with observations reaching approximately 2900%. Private company register increases that are more moderate, reaching approximately 400%.

Table 5 also shows the net difference between the patents introduced by a company 2 years before and after the acquisition. Only 4 companies report lower patenting activities, while 27 report significantly higher patenting activities. No major differences appear between SOEs and private companies.

A series of t-test enable me to conclude that the majority of companies having positive patenting activities post-acquisition and the majority of companies having greater patenting activities after the acquisition are both statistically significant.

I first start by addressing the problematic correlation mentioned above. In order to detect the presence of multicollinearity, the full model was ran on Stata®, including the interaction variable. The VIF and 1/VIF were then computed to detect potential multicollinearity (See table 6). According to Tabachnik and Fidell (2001), a 1/VIF value close to 0 is problematic. More specifically, Tabachnik and Fidell (2001) indicate that a 1/VIF below 0.1 indicates multicollinearity, while other use a threshold of 0.2 (Menard, 1995) or even 0.25 (Hubert & Stephens, 1993).

Applying the strictest threshold of 0.25 or the threshold of 0.1, the first three variables in the table indicate possible multicollinearity. Even though Stata® does not appear to drop out variables because of a possible multicollinearity, I have decided to drop the variables out of the model one by one in order to compute the resulting VIF and 1/VIF. Removing the interaction variable solved the potential multicollinearity problem as shown in table 7. This has thus modified the initial plan. The full model is now the one illustrated below and results are displayed in table 7.

*Patent output*_{2years}

$$\begin{aligned}
 &= \beta_0 + \beta_1 \text{Acquirer's knowledge base size} + \beta_2 \text{Target's knowledge base} \\
 &+ \beta_3 \text{Acquirer's knowledge base relative size} \\
 &+ \beta_4 \text{Knowledge base relatedness} + \beta_5 \text{National Cultural Distance} \\
 &+ \beta_6 \text{M\&A Experience} + \beta_7 \text{M\&A experience count} + \beta_8 \text{Average assets} \\
 &+ \beta_9 \text{R\&D expenditures}_{2years} + \beta_{10} \text{State - Owned Enterprise} + \mu
 \end{aligned}$$

The first observation that can be drawn from the results is the low statistical significance of the variables in general. Only the acquirer's patent base, the national cultural distance, previous M&A experience count and R&D expenditure variables are statistically significant.

Other variables show a very low statistical significance with $p < .372$ being the lowest non-statistically significant for the constant variable.

Secondly, I see that the $1/VIF$ values obtained are all above the most restrictive threshold mentioned in the literature (Hubert & Stephens, 1993). Therefore, there are no multicollinearity problems with this model.

Moving on to the results, the coefficients in table 7 indicate a mean change in the dependent variable for an increase in one unit of the independent variable in question, holding the value of the other independent variables constant. I first observe that the positive coefficient of the acquirer's patent variable (.46) together with its high statistical significance does not enable me to falsify *hypothesis 3*. It appears to corroborate earlier results that found a company's absorptive capacity to have a positive influence on its post-acquisition general performance. In this case, a company's absorptive capacity appears to have a positive effect on its post-acquisition innovation performance.

Table 7: Results

<i>Variables</i>	<i>Coefficients</i>	<i>VIF</i>	<i>1/VIF</i>	<i>Hypothesis</i>
<i>Constant</i>	-233.7681 (257.3356)	-	-	H1
<i>Acquirer's patents</i>	.4649*** (.0926)	3.04	.3289	H3
<i>Target's patents</i>	-.0177 (.1163)	1.23	.8142	H2a
<i>Relative patent base size</i>	.1117 (1.2667)	1.18	.8457	H2b
<i>Knowledge base relatedness</i>	-42.6332 (171.4676)	1.27	.7858	H2c
<i>National cultural distance</i>	30.9065* (13.9738)	1.11	.9045	H5
<i>M&A experience</i>	176.4021 (212.8552)	1.22	.8225	H4
<i>M&A experience count</i>	-48.3846** (15.6474)	3.84	.2605	H4
<i>State-Owned Enterprise</i>	67.6423 (196.8086)	1.74	.5736	-
<i>R&D expenditures</i>	.0463* (.0176)	1.39	.7207	-

*, **, *** show statistical significance at the $p < .05$, $p < .01$ and $p < .001$ level respectively – 37 observations

Results appear to corroborate *hypothesis 5*. Indeed, the positive (30.91) and statistically significant coefficient of the national cultural distance variables appears to corroborate earlier findings that cultural differences can be conducive of innovation during M&As (Chakrabarti et al., 2009).

Hypothesis 4 can be falsified by my results on previous M&A experiences. Interestingly, the dummy variable shows the expected sign (176.40) but shows no statistical significance, while the coefficient of the previous M&A experience count is statistically significant but shows a negative sign (-48.38), the complete opposite of what I expected.

This finding seems indicative that previous M&A experiences may negatively affect the post-acquisition innovative performance of a firm. Earlier, I had argued that, consistently with Baker and Limmach's (2001) findings, previous M&A experiences could improve subsequent integration performance, thereby improving a company's post-acquisition performance. While earlier research by Hitt et al. (1991, 1996), Hoskisson, Hitt and Ireland (1994) and Conn et al. (2001) found that one of the main obstacle to improved innovation performance after a M&A was the lack of managerial attention devoted to innovation and other critical activities, Chinese companies have been shown to employ light touch integration techniques (Liu & Woywode, 2013). Since this technique required lower managerial integration effort, the lack of managerial attention argument was therefore put aside. However, it appears to still be a relevant factor behind this result.

Another and similar reason behind this result can be found in the research of Ahuja and Katila (2001) and Fisch et al. (2017). They argued that the lowest the knowledge base of the target is in comparison to the acquirer's, the easier the integration of this knowledge base is. This, in turn, leads to a better post-acquisition performance. It can also be argued that multiple subsequent acquisitions make the cumulative targets' knowledge bases increasingly larger in comparison with the acquirer's knowledge base, making it increasingly difficult to integrate additional knowledge.

A number of other hypotheses are not supported by my results. *Hypothesis 1* is not supported by the evidence. Indeed, the constant variable is negative (-233.77) and is not significant. *Hypotheses 2a, 2b and 2c* are not supported by the results. While the knowledge base relatedness and sizes display the correct coefficient (-.42,67 and .11) but are not statistically significant, the target's patent size shows a negative coefficient (-.01), which is the inverse of what I expected, and is statistically insignificant.

Table 8: Hypotheses

H₁	<i>Chinese companies engaging in CBMAs will see an improvement in their post-acquisition innovation performance.</i>	<i>Falsified</i>
H_{2a}	<i>The acquirer's post-acquisition innovation performance is positively related to the target's knowledge base size.</i>	<i>Falsified</i>
H_{2b}	<i>The acquirer's post-acquisition innovation performance is negatively related to the target's knowledge base relative size</i>	<i>Falsified</i>
H_{2c}	<i>The relationship between the acquirer's post-acquisition innovation performance and the target's and acquirer's industry similarity is negative.</i>	<i>Falsified</i>
H₃	<i>An acquirer's past M&A experience is positively correlated with its post-acquisition innovation performance.</i>	
H₄	<i>An acquirer's past M&A experience is positively correlated with its post-acquisition innovation performance.</i>	<i>Falsified</i>
H₅	<i>An acquirer's past international experience is positively correlated with its post-acquisition innovative performance.</i>	

7. DISCUSSION

7.1 Contribution to the literature

My research contributes to the literature by extending the research on what Fisch et al. (2017) coined as a relatively new phenomenon and research topic. Indeed, while there is a large body of literature on M&A and post-acquisition innovation performance in developed countries, the recent phenomenon of Chinese CBMAs remains largely ignored by the literature in comparison. My results therefore extend the previous literature on Chinese CBMAs and post-acquisition innovation performance, and further explores hypotheses that have been developed by previous research. New hypotheses have thus been generated and tested, and other existing hypotheses have been tested.

7.2 Implications for managers and policy makers

By testing hypotheses that were previously studied in previous research and new hypotheses, I have extracted insights that can be valuable for Chinese managers and Chinese policy makers.

First, the corroboration of hypothesis 3 by my results supports earlier evidence that shows that a company's absorptive capacity is an important success factor for post-acquisition innovation performance (Cohen & Levinthal, 1990; Deng, 2010). More importantly, Zhara and George (2002) argue that firms with well-developed absorptive capacities are more likely to be "*more adept at continuously revamping their knowledge stock by spotting trends in their external environment and internalizing this knowledge*", while developing processes that become more efficient (less time and cost) in terms of absorption. The result is an innovative competitive advantage.

The implications for Chinese managers and Chinese policy makers are important in this context of technological catch-up. It appears clearly that developing Chinese companies' absorptive capacities should be a major focus for these two stakeholders. Absorptive capacity has different aspects: recognizing external knowledge, recombining it with internal knowledge and applying it commercially (Cohen & Levinthal, 1990). Different steps can be taken in order to bolster a company's capabilities in these aspects.

Previous research has pointed to a company's existing stock of knowledge depth and breadth as an enabler for recognizing external knowledge (Zhara & George, 2002). By investing in basic research and education, both managers and policy makers can significantly improve their companies' abilities to recognize external knowledge, according to Van Looy (2015).

Recombining external knowledge with internal knowledge to apply it commercially can be achieved more easily if managers and policy makers invest in quality education and trainings (Van Looy, 2015), but also if managers adopt efficient organizational mechanisms that promote cross-functional interfaces, job rotations and connectedness inside their company (Jansen, Van Den Bosch & Volberda, 2005).

While I have shown earlier that previous research is ambiguous on the effects of cultural distance on M&As success, the evidence collected in my research appears to support cultural differences as conductors of post-acquisition innovation performance (hypothesis 5). This is consistent with the arguments developed by Chakrabarti et al. (2009), Stahl and Voigt (2008) and others.

Therefore, I argue that instead of seeing cultural differences as an obstacle to a successful M&A, Chinese managers and policy makers should embrace the potential for synergies. Edelman (1992) has shown that companies with international experience show more compliance to foreign social and cultural norms and were ultimately more successful.

Cox and Blake (1991) argue that managing cultural diversity efficiently results in organizational competitiveness and offer managers avenues for improvement. First, they argue that support to diversity and openness from an organization's leadership is the first step towards unlocking the synergies coming from diversity. The next elements they recommend are diversity awareness and skill-building trainings, as well as proper research on diversity. Finally, the organization itself should be structured as to prevent major bias.

The falsification of hypothesis 4 also has implications for Chinese managers and policy makers. As explained earlier, the literature has produced evidence that large acquisitions can divert managerial attention from important issues (Hitt et al., 1991, 1996; Hoskisson, Hitt & Ireland, 1994; Conn et al., 2001; Ahuja & Katila, 2001; Fisch et al., 2017). It can be argued that a large number of small acquisitions in a small timescale can produce the same effects as one large acquisitions. Therefore, the implication for Chinese managers and policy makers is that Chinese companies should not engage in a number of acquisitions that would submerge their available resources and time. Chinese policy makers, who sometimes exert tight controls on Chinese CBMA, should pay close attention to this.

7.3 Limitations and avenues for future research

There are a number of limitations to my research, which also create avenues for future research.

The first limitation is that my database only contained 37 observations. The reason behind this are that (i) Chinese strategic-assets seeking CBMA are a relatively new phenomenon and that (ii) my access to external data was limited to Bloomberg and a few additional free databases available online. Data on innovation and transactions is often incomplete or even undisclosed. A limited number of observations can affect the coefficients, signs and statistical significance of my results. Exploring the Chinese CBMA phenomenon in the future with a larger number of observations constitutes a first avenue for future research. More observations could lead to significantly different results.

A second limitation lies in the data that was used in my research. First, the patent data extracted from the European Patent Office's website lacks reliability for different reasons. (i) While it is the most comprehensive free patent database, it probably does not contain the exact number of patents possessed the company in question. Indeed, van Dulken (1999) underlines the lack of reliability of free patent databases' advanced search tools and the potential search errors that can result from this. (ii) The database, according to the EPO's website, covers 90 IP institutions' databases and therefore is not exhaustive. Patents filed in countries not covered by the EPO's database will not be listed. Secondly, the data collected to test my hypotheses suffers from a number of practical limitations:

- Patents as a measure of innovation performance do not capture the whole picture. While patents represent a set of knowledge created by a given company (Ahuja & Katila, 2001), they differ significantly in terms of quality (Veugelers, 2016). One patent does not equate another. Moreover, new innovations are not always patent protected. Secrecy is another method used to protect innovations (Van Looy, 2015). Moreover, patents do not reflect improvements in branding and in managerial capabilities. Therefore, using alternate measures such as sales coming from new products, savings generated from innovative processes, managerial performance or an aggregate measurement taking trademarks, patents and managerial performance could yield better measurements. However, these measurements were not available to me.
- Using industry similarity as a proxy for knowledge base relatedness has its limitations. Indeed, two competitors could have non-overlapping knowledge bases while two non-competitors could have overlapping knowledge bases. Using patent-specific information to determine the extent of companies' knowledge base overlap could measure this overlap more efficiently (Ahuja & Katila, 2001).

- National cultural distance can sometimes be significantly different than a corporation's culture (Mezias, 2002). While the resulting bias is not significant (Mezias, 2002), using company-specific measurements would be ideal. This results in an avenue for future research.
- Another limitation stems from endogeneity: (i) Omitted variables such as administrative distance can affect our dependent variable, thereby causing endogeneity. (ii) Hofstede's cultural distance could be endogenous. An increase or a decrease in this variable may provoke an increase or a decrease in another explanatory variable. While Chenhall and Moers (2007) argue that no research is exempt from endogeneity, they propose a solution for future research that have to deal with the problem: using IV estimations, which enables for estimations with limited bias when explanatory variables are correlated with the error term.

Another limitation to my research is the inability to differentiate between strategic-asset seeking acquisitions ("*Tech acquisition*" for Ahuja and Katila (2001)) and other type of acquisitions. While I have made the assumption that all of the observations in my dataset were technological CBMAs, the literature has shown that while a large part of these CBMAs were motivated by strategic-asset seeking motives, a fair share were also market and resources-seeking CBMAs. Future research can extend these results by taking these differences into account.

The limited size of my sample resulted in an additional limitation. I could not limit my observations to a single industry without running the risk of obtaining a dataset of a very low size. Ahuja and Katila (2001) argued that patenting patterns are dissimilar across industries. Therefore, future research could nuance the results by running different analyses for different industries.

A final limitation has to do with the methodology used. The results obtained from my statistical regression are high-level results and cannot account for the granularity and the precise context of every specific CBMA. This is first due the often private nature of these information and to the difficulty of accounting for every deal-specific variables and events in a statistical model. My results and the results of previous research could be significantly nuanced and improved by using case studies and interviewing the relevant actors at the source. Moreover, this type of research could efficiently include more factors that are specific to the context of China's technological catch-up.

8. CONCLUSION

As laid out in my introduction, the Chinese CBMA phenomenon is relatively recent and remains understudied according to Fisch et al. (2017). In the context of China's innovation imperative, the literature has observed that a large number of these CBMA were in search of strategic assets such as technologies, brands and managerial capabilities in order to improve their competitiveness. While the literature has extensively investigated the phenomenon of CBMA and innovation in developed countries, the number of research that have studied this Chinese phenomenon is limited (Ahuja & Katila, 2001; Fisch et al., 2017).

My research contributes to the literature by extending previous study, retesting existing hypotheses and exploring new hypotheses on this topic. I have first conducted a literature review on the Chinese technological catch-up context, on FDIs and CBMA, on M&As and their success factors, on innovation and on the effect of CBMA on the acquirers' innovation performance. With the insights collected from this literature review, I have produced 7 hypotheses (see table 8) that I have tested with a sample of 37 Chinese CBMAs, whose data was mainly collected through Bloomberg, that was analyzed with a linear regression model.

I find that, in my sample, Chinese companies appear to post positive post-acquisition patenting activities, which are also found to be greater than pre-acquisitions patenting activities, indicating a positive stimuli of CBMAs on their innovation performance. These results are statistically significant. My findings also corroborate previous studies on western and Chinese technological acquisitions that find absorptive capacity as an important post-acquisition innovation performance driver. The evidence I have collected appears to support national cultural differences as driver of post-acquisition innovation performance. Finally, I find that the larger the number of past M&A, the worse is the post-acquisition innovation performance.

A number of implications for Chinese managers and policy makers were discussed. First, the importance of developing absorptive capacity by investing in basic research, education, and by adopting adapted organizational tools was stressed. This observation is in line with previous studies (Ahuja & Katila, 2001; Fisch et al., 2017). The second item on policy makers' and managers' to-do list is to open the organization to the potential benefits of cultural differences. This can be done by ensuring the set-up of a relevant organization and by training employees to harness the potential of cultural differences as well as limiting its potential harm. Finally, I argue that policy makers and managers should ensure that their energy remains directed to a manageable number of acquisitions. The set-up of adapted

control mechanisms can be warranted. Limitations and avenue for future research have been discussed.

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