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Ownership, institutional environment and subsidiary performance: a dynamic analysis in the mobile telecommunications industry

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Tesis Doctoral

OWNERSHIP, INSTITUTIONAL ENVIRONMENT AND SUBSIDIARY PERFORMANCE: A DYNAMIC ANALYSIS IN THE MOBILE TELECOMMUNICATIONS INDUSTRY

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DOCTORAL THESIS

OWNERSHIP, INSTITUTIONAL ENVIRONMENT AND SUBSIDIARY PERFORMANCE: A DYNAMIC ANALYSIS IN THE MOBILE TELECOMMUNICATIONS INDUSTRY

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Generés

A mis padres, José y Ana

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Zaragoza, a 8 de octubre de 2019

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CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

1.1.1. Ownership, institutional environment and subsidiary performance

Multinational enterprises (MNEs) have become fundamental players in the global economy, significantly increasing their presence during recent decades. Their foreign direct investment (FDI) outflows reached $1.4 trillion in 2017 (UNCTAD, 2018). This has attracted the attention of a large number of researchers (Dunning, 2001; Kim & Hwang, 1992; Ramamurti, 2004; Rugman, 2005) who have tried to analyze both strategic behavior during internationalization processes (Arregle, Miller, Hitt, & Beamish, 2013; Delios & Beamish, 1999) and the performance of MNEs and their subsidiaries (Chan, Isobe, & Makino, 2008; Geringer, Beamish, & DaCosta, 1989).

In internationalization processes, two strategic decisions have received a great deal of attention, namely the entry mode and the ownership level (Xu & Shenkar, 2002). Regarding entry mode, an MNE can choose to internationalize using the greenfield method (i.e., by establishing a new company in the host country), or through a cross-border acquisition (CBA) (i.e., acquiring an existing company) (Brouthers & Brouthers, 2000; Slangen & Hennart, 2007). Although these two entry modes have both been widely used, in recent years there has been more growth in CBAs than in greenfield investments (UNCTAD, 2018), encouraging researchers to analyze the determinants of these acquisition processes further.

Once the acquisition has taken place, a key decision for the company is the appropriate level of ownership, which will be based on the level of uncertainty associated with the acquisition. The

determinants of this uncertainty and, therefore, of the level of ownership that the company acquires have been widely studied in recent years (Chari & Chang, 2009; Malhotra & Gaur, 2014; Xie, Reddy, & Liang, 2017; etc.). However, the previous literature has focused on analyzing the determinants at the country and MNE level, while the determinants at the level of the target company have been unexplored. This lack of research opens a promising line of investigation, which constitutes the first research objective of this doctoral thesis (i.e., the analysis of factors at the subsidiary level that influence the ownership level acquired).

Moreover, CBA processes are dynamic, and an MNE can vary its decision about the commitment of resources once it has entered the host country. It is true that a stream of literature has focused on this point in recent years (Petersen, Welch, & Welch, 2000; Puck, Holtbrügge, & Mohr, 2009; Swoboda, Olejnik, & Morschett, 2011); however, to our knowledge there are no studies that analyze the influence of subsidiary-level factors on ownership variations in the post-acquisition period. This doctoral thesis also tries to fill this gap in the literature. So, our second research objective is the analysis of factors at the subsidiary level that influence variations in ownership after the initial acquisition.

In addition, the continuous growth of developing economies has transformed the landscape of global business. This has generated opportunities both for the entry of companies from developed countries into emerging markets and for the creation of MNEs in developing countries. During the 1980s and the 1990s, MNEs were from developed countries, especially the United States and European countries, while MNEs from emerging economies represented only a

small part of outward FDI (UNCTAD, 2003). However, this situation has changed dramatically during the last two decades. FDI flows from developing countries have increased over the past 20 years (UNCTAD, 2018). This has led scholars to focus on emerging multinational companies (EMNEs), with the aim of delving into the strategies they follow (Cuervo-Cazurra, 2012; Rugman & Li, 2007). There has been a debate in the literature about whether EMNEs (which are conditioned by the specific characteristics of the competitive and institutional environment in which the parent company develops its activity) follow different strategies from MNEs from advanced countries (AMNEs) (Hennart, 2012; Narula, 2012). The evidence shows that the specific characteristics of the home country influence the overall strategy of a firm (Cuervo-Cazurra, 2011; Hernandez & Nieto, 2015). In order to study this issue, this doctoral thesis analyzes how ownership-level decisions taken by MNEs in emerging countries depend on the home country of the MNE.

Once the establishment of the subsidiary in the host market has taken place, its success can be observed in the performance of both the MNE and the subsidiary. For this reason, an extensive body of literature has concentrated on the study of this performance and its determinants. While there are numerous studies examining the performance of the parent company (Geringer et al., 1989; Goerzen & Beamish, 2003; Hitt, Hoskisson, & Kim, 1997), a smaller number have studied the factors that affect the performance of the subsidiary (Chan et al., 2008; Hansen & Gwozdz, 2015).

The previous literature has shown that one of the main determining factors that explain the performance of the subsidiary is the institutional environment of the host country (Chan et al., 2008).

The host country environment determines the conditions in which firms compete (North, 1990), and influences companies by restricting or facilitating their activities (Peng, Sun, Pinkham, & Chen, 2009; Peng, Wang, & Jiang, 2008). More importantly, the institutional environment in which MNEs perform their activity changes over time (North, 1990). For example, in 2018, about 55 economies introduced at least 112 measures that affected foreign investment. More than a third of these measures introduced new restrictions or regulations (UNCTAD, 2019).

The institutional environment has been widely analyzed in the strategy and international business literature in recent years (Peng, 2003; Peng et al., 2009), but nevertheless, a new trend, namely the *dynamic institution-based view* (Banalieva, Eddleston, & Zellweger, 2015), has emerged in the analysis of how changes in institutions affect strategy and performance. This new theoretical perspective does not focus on the depth of the institutional change experienced by a market, but on the speed at which that change is carried out. Although there are some empirical studies that analyze the impact of the speed of institutional change on firm performance (Banalieva et al, 2015; Banalieva, Cuervo-Cazurra, & Sarathy, 2018), there are no studies that focus on the impact of the speed of institutional change on the performance of subsidiaries. Therefore, this doctoral thesis will try to provide further evidence on this topic.

Moreover, not all MNEs have the same characteristics. As we have mentioned, previous research has highlighted the importance of the home country for the strategies followed by an MNE (Cuervo-Cazurra, 2011). Some firms can develop new capabilities as a result of their experience and learning in their home country, and these can be

used in the future. This phenomenon is known as home country learning (Cuervo-Cazurra, Luo, Ramamurti, & Ang, 2018). When MNEs come from emerging or highly competitive countries, they can engage in institutional and competitive learning, respectively. This learning in the home country will favor the generation of competitive institutional advantages for the MNE (Martin, 2014). Because part of the success of an MNE derives from the fact that it can share its resources with its subsidiaries, it is possible for an MNE to transfer these competitive institutional advantages to its subsidiaries. Therefore, this thesis also tries to deepen our knowledge of the relevance of home country learning for subsidiary performance.

1.1.2. Research objectives

Taking into account the gaps in the literature mentioned in the previous section, the dissertation reports on three empirical studies. Each study tackles one of the main research objectives and is focused on answering the unresolved questions to reach a better understanding of the strategies followed by MNEs and the performance of subsidiaries in international processes.

The main research objectives are:

- **Research objective 1.** *To investigate the influence of the target's characteristics on the level of ownership acquired by an MNE in a CBA.*
    - ***Research objective 1.a.*** *To investigate the influence of the target's characteristics on the initial level of ownership acquired by the MNE.*

- ***Research objective 1.b.*** *To deepen our knowledge of how the subsidiary's characteristics are also important in the variation in the level of ownership in the post-acquisition period.*

To tackle these two research objectives, we develop the first empirical study (**Chapter 2**), which is split into two stages. In the first stage, the study tries to explain, in a context where there are first-mover advantages, how the leading time between the entry of the pioneer and the entry of the target into the market is a key determinant in the decision about the ownership level acquired by the MNE. In a second stage, the study focuses on analyzing how this leading time is also relevant in the period after the acquisition, influencing the MNE's decisions on variations in the ownership level.

In addition, during the study we analyze the influence that other factors, such as the age of the market or the introduction of new technologies by subsidiaries, may have on the ownership decision, both at the initial moment of acquisition and during the period after the acquisition.

- **Research objective 2.** *To investigate the influence of home country learning on the ownership level acquired in a CBA, by distinguishing between emerging and developed home and host countries.*

This research objective is addressed in the second study (**Chapter 3**), and demonstrates that the level of ownership that an MNE acquires in an emerging country differs according to whether or not its home country is an emerging country. This is due to the institutional learning that an EMNE can possess. This institutional learning can help to reduce the uncertainty that MNEs generally face

when entering emerging countries, and increases the ownership acquired by EMNEs above the level acquired by AMNEs.

- **Research objective 3.** *To investigate the influence of the speed of institutional change on a subsidiary's performance, by considering the moderating effect of home country learning.*

To address this objective, we design the last empirical study of the dissertation (**Chapter 4**). Our investigation studies whether the speed of change in market-supporting institutions can negatively affect the performance of subsidiaries, because of the difficulty of adapting to the new institutional environment. In addition, the study tries to demonstrate the influence of the home country learning of the MNE in relation to these changes. Specifically, the study focuses on institutional and competitive learning as a source of the competitive and institutional advantage that an MNE can transfer to its subsidiaries.

1.2. THEORETICAL CONTEXT

For the development of the three empirical studies, this thesis is based on different theories. Specifically, the first two empirical studies (Chapters 2 and 3) are based on the ownership literature. In Chapter 2, the ownership literature merges with the first-mover advantage literature, trying to answer the call of Zachary, Gianiodis, Payne, & Markman, (2015) for the establishment of a more integrative framework for the entry literature. To provide an answer to the second research objective, Chapter 3 complements the ownership literature with the literature on institutional theory and home country learning. This home country learning literature is also key for the last of the empirical studies (Chapter 4), which is also based on the

dynamic institution-based view. The integration will allow us to address the last research objective.[1]

The next subsections are devoted to brief introductions to the theories mentioned above that serve as the basis for the development of the research objectives.

1.2.1. Ownership in cross-border acquisitions

The choice of the initial level of ownership in a CBA is important when an MNE enters a foreign market, because this level of ownership has a clear economic, financial and strategic impact on the acquirer and the target company (Chari & Chang, 2009; Pinto et al., 2017).

The initial acquisition of a high level of ownership in the target allows complete control over operations, facilitating the management functions within the company and providing access to a higher percentage of profits, but it also entails greater risks and costs because of the commitment of resources and the lack of flexibility (Anderson & Gatignon, 1986). By contrast, a lower level of ownership provides access to complementary resources that were not previously available and facilitates risk diversification (Anderson & Gatignon, 1986), but it leads to potential opportunistic costs associated with the post-acquisition integration, and to a lack of control.

Previous studies have analyzed the optimal level of ownership in terms of costs and benefits, highlighting the role of market imperfections in this important decision (Chari & Chang, 2009; Li & Li, 2010). Market imperfections, such as adverse selection and moral

[1] A brief summary of this structure can be seen in Figure 1.1.

hazard, result in higher transaction costs, and arise from a lack of knowledge of the host country (Malhotra & Gaur, 2014). When MNEs expand into a new host market through cross-border acquisitions, they often do not have sufficient knowledge of the new context. The environment in the home country may be substantially different, which increases the challenge of understanding the complexities of doing business in the host country (Kostova, 1999; Mezias, 2002). As a result of cultural, normative, political and social structures, and economic conditions, companies face difficulties from being foreign in the new environment (Johanson & Vahlne, 1977). The consequent asymmetry of information does not allow them to make a proper assessment of the value of the target acquired because of the *ex ante* problem of adverse selection and the *ex post* problem of moral hazard.

Once the acquirer has invested in the target company, uncertainty can be reduced because the acquirer can obtain direct information from the subsidiary, local managers and the environment, and this can lead to a variation in the acquirer's commitment in the subsidiary in the post-entry period (Clark, Pugh, & Mallory, 1997; Petersen et al., 2000; Puck et al., 2009; Putzhammer, Fainshmidt, Puck, & Slangen, 2018; Swoboda et al., 2011).

Acquirers can vary their ownership in the subsidiary once they gain experience and learning. This ability and preparation to change ownership in the post-entry period has been conceptualized as "strategic flexibility" (Petersen et al., 2000, p. 689). Although research in this field is still scarce, some authors have tried to deepen our knowledge of the factors that influence ownership changes once entry has taken place, in decisions such as the internationalization mode (Calof & Beamish, 1995; Petersen et al., 2000), the conversion from

joint ventures to wholly-owned subsidiaries (Puck et al., 2009), an increase in ownership (Jeanjean, Stolowy, Erkens, & Yohn, 2015), and divestments (Petersen et al., 2000). Some determining factors of this variation in the commitment of resources after entry are related to the internal environment, the external environment, managerial attitudes and firm performance (Swoboda et al., 2011).

1.2.2. First-mover advantages

First-mover advantages arise when the pioneers in a market obtain benefits in terms of profitability, value creation or survival (Lieberman & Montgomery, 2013). This field of literature has been extensively analyzed since the publication of Lieberman and Montgomery's seminal article in 1988, resulting in the identification by researchers of three groups of factors under which entering a market early is a profitable strategy (Suárez & Lanzolla, 2007).

First, resources and capabilities at the firm level, such as management skills (Murthi, Srinivasan, & Kalyanaram, 1996) and product development skills (Robinson & Chiang, 2002) can favor the exploitation of first-mover advantages. Second, environmental factors, such as market transparency, environmental uncertainty, and the stage of the life cycle of the industry affect the advantages enjoyed by the pioneers and the sustainability of those advantages (Suárez & Lanzolla, 2007). Third, isolation mechanisms prevent late entrants from catching up with pioneers (Rumelt, 1987). The most commonly accepted classification of these isolation mechanisms (Lieberman & Montgomery, 1988) is based on three categories: a) technological leadership, through the learning and experience curve or the existence of R&D patents; b) the preemption of scarce assets, which includes

economies of scale and the advantages of choosing niche markets; and c) buyer switching costs derived from the formation of habits in buyers and the firm's reputation.

Previous research has generally demonstrated the existence of a positive relationship between early entrance and firm performance (García-Villaverde, Ruiz-Ortega, & Parra-Requena, 2012; Gómez & Maícas, 2011; Vanderwerf & Mahon, 1997), but some studies have also founded mixed or contradictory results (Boulding & Christen, 2008). For this reason, researchers have tried to address the question of whether first-mover advantages are static or can be eroded (Ferrier, Smith, & Grimm, 1999). There are circumstances that cause the disadvantages of being a pioneer to overcome the advantages (Lieberman & Montgomery, 2013), because of the negative impact on the effectiveness of isolation mechanisms (Boulding & Christen, 2003; Gómez, Lanzolla, & Maícas, 2016).

1.2.3. The institution-based view and the dynamic institution-based view of strategy

In recent years, the institutional approach, along with other traditional approaches based on industry and resources, has become key for understanding organizational phenomena (Peng et al., 2009). The institution-based view of strategy argues that the institutional environment in which firms compete, that is, the "rules of the game" (North, 1990), influences firms' choices by restricting or facilitating their activity (Peng et al., 2008, 2009). Institutions provide stability for economic exchanges by reducing uncertainty (North, 1990), and have an impact both on firms' strategic decisions and on their performance (Ang, Benischke, & Doh, 2015; Dikova & Brouthers, 2016; Wan &

Hoskisson, 2003). Specifically, academics have paid special attention to some of these institutions, the *market-supporting institutions,* because they facilitate economic exchanges and promote an effective market mechanism (Meyer, Estrin, Bhaumik, & Peng, 2009).

Strong market-supporting institutions can contribute to more efficient transactions by reducing the costs of doing business (North, 1990). For example, the existence of financial intermediaries facilitates access to capital and information, which reduces uncertainty and promotes the entry of new competitors. An effective judicial system allows firms to ensure the protection of their property rights, which can promote innovative activities (James, Leiblein, & Lu, 2013). As the judicial system improves the protection of property rights, the infringement of those rights is less frequent, which reduces the costs of litigation for innovative firms (Lanjouw & Schankerman, 2004). In addition, market-supporting institutions condition the results obtained from key strategies such as diversification (Wan & Hoskisson, 2003), radical innovation (Fuentelsaz, Garrido, & Maícas, 2015) and environmental strategies (Goedhuys & Sleuwaegen, 2013).

These rules of the game change over time (Peng, 2003). The main aim of governments when implementing institutional changes is usually to liberalize the market. These changes are generally known as pro-market reforms (Cuervo-Cazurra & Dau, 2009; Peng, 2003), and they usually lead to improvements in national governance and to economic liberalization (Dau, 2012). For example, governments increase labor flexibility by reducing restrictions on the termination of employment (Botero et al., 2004), encourage the protection of property rights by improving patent laws (Michel et al., 2013), and reduce uncertainty by facilitating the process of enforcing contracts in court

(North, 1991). In addition, pro-market reforms generally result in price liberalization and the reduction of industrial and commercial barriers in a country, which favors competition and the entry of foreign investors (Dau, 2012).

Previous empirical studies do not show conclusive evidence of how institutional changes can impact on firm performance (Banalieva et al., 2018). Improvements in market-supporting institutions are not immediate or without cost (North, 1990). Some studies that focus on emerging environments report that pro-market reforms lead to better performance (Cuervo-Cazurra & Dau, 2009), while others do not find this positive effect (Chari & Banalieva, 2015).

This lack of consensus has led to a new trend in the literature, the dynamic institution-based view of strategy. This dynamic institution-based view focuses on analyzing the effect that the speed of institutional changes has on firm strategy and performance (Banalieva et al., 2015). While previous research had considered institutional change as a static event, pro-market reforms may be carried out gradually over a long period of time or, alternatively, may be developed rapidly (Banalieva et al., 2015; Chen, Cui, Li, & Rolfe, 2017).

In this perspective, an institutional change implies a multi-stage process in which each stage results in a different institutional environment and logic (Greenwood, Suddaby, & Hinings, 2002; Hoffman, 1999) and in which the transition from each stage to the next may be at a different speed. Signaling theory indicates that governments, through their behavior, send signals to demonstrate they are making efforts to introduce reforms (Huang, 2013; Walsh, 2007). Therefore, some governments promote institutions that

support the market quickly, to send signs of market efficiency and to show the government's commitment to market liberalization (Banalieva et al, 2018). However, other governments that have already undergone a period of intensive pro-market reforms may then implement reforms more slowly because of pressure from stakeholders or a change in government mandate (Rajan & Zingales, 2003). From the dynamic point of view, an institutional change is not as important as the speed at which this change takes place (Banalieva et al., 2015), and this speed may influence firm performance.

1.2.4. Home country learning

The literature has shown that companies generate new resources and capabilities through learning and experience. An important source of learning for MNEs is the home country (Cuervo-Cazurra et al., 2018), and this can be key in internationalization decisions (Cuervo-Cazurra et al., 2018).

According to Cuervo-Cazurra et al. (2018), we can differentiate two types of home country learning for MNEs: institutional and competitive learning. We define institutional learning as the experience acquired in the country of origin as a consequence of facing the peculiarities of home institutions. Subsidiaries of MNEs whose home countries have weak institutions have obtained institutional learning that can be valuable for competing in host countries with institutional gaps, unlike subsidiaries of MNEs from countries with more developed institutions (Cuervo-Cazurra et al., 2018). Some MNEs may use their exposure to weak and changing institutions in their home country as a source of competitive

advantage when expanding abroad (Cuervo-Cazurra & Genc, 2008), which may result in institutional advantage (Martin, 2014).

In the same way, we define competitive learning as the experience acquired in the home country as a result of exposure to high levels of competition that force the MNE to improve its competitiveness (Cuervo-Cazura et al., 2018). This competitive learning leads to the development of capabilities that facilitate the interaction with new competitors, products, and consumer preferences in the home country. These capabilities can be used in the future to face a new environment in the host country.

1.3. EMPIRICAL CONTEXT: THE MOBILE TELECOMMUNICATIONS INDUSTRY

The empirical analyses in the three main chapters presented in this doctoral thesis have been carried out in the global mobile telecommunications industry. This is an industry that has experienced impressive growth over the past two decades, and has been the focus of a growing amount of research (Birke & Swann, 2006; Fuentelsaz et al., 2015; Gómez et al., 2016; Kitchen, Martin, & Che-Ha, 2015).

The mobile telecommunications industry is especially appropriate as a research setting for several reasons. First, it is an industry with a high level of internationalization. For example, 52% of firms in this industry in the third quarter of 2017 were subsidiaries of MNEs. The internationalization of these MNEs has been recent. At the beginning of 2000, there were 56 MNEs operating in 142 countries with 293 entries, while in 2017, 76 MNEs were present in 205 countries, with a total of 926 entries. This means that 68.4% of the

entries were made during the period analyzed in this thesis. This international expansion has occurred mainly through CBAs, because of government restrictions. Entry through a greenfield investment is only possible when a new license is available in a market. Thus, greenfield investments are limited to certain time windows when license auctions take place (Claussen, Köhler, & Kretschmer, 2018). In addition, the MNEs in this industry carry out their activity across all five continents, which assists with our research proposals, since it allows a high institutional variability in the host countries in which the subsidiaries compete.

Secondly, although the internationalization in the industry began with FDI by MNEs from advanced economies (for example, Deutsche Telekom from Germany, Orange from France, Telefónica from Spain, and Vodafone from the United Kingdom), during the last twenty years MNEs from emerging countries have gained leading positions in the industry (for example, América Móvil of Mexico, Bharti Airtel of India, and Zain of Kuwait). The same pattern is observed in the selection of the host countries, with MNEs increasing their presence in emerging economies during recent years.

Thirdly, it is an industry where first-mover advantages have been empirically confirmed (Gómez & Maícas, 2011; Whalley & Curwen, 2012). Early entrants have significant advantages, and it is difficult for late entrants to overcome these advantages as a result of the existence of isolating mechanisms (Atiyas & Doğan, 2007; Bijwaard, Janssen, & Maasland, 2008; Whalley & Curwen, 2012). In addition, this industry allows us to identify the entry timing of each firm in the market. In this way, we can identify the moment of entry of the targets and the leading time since the entry of the pioneer.

Fourthly, it is an industry that allows us to identify the company that introduced a new technology to the market, which is important for the development of the study in Chapter 2. The most important technological change in the industry, the transition from the second (2G) to the third generation (3G), took place during the last decade. This technological change allowed consumers to use the Internet on their devices and led to the progressive replacement of voice by text for data exchange services (Fuentelsaz, Maícas, & Polo, 2008).

Finally, as competition takes place at the national level, geographical boundaries allow a better definition of the scope of competition in a market. As the number of competitors in each country is generally limited, it is possible to quantify the number of direct rivals and their market shares. In addition, the degree of rivalry is heterogeneous in all countries, which allows us to prove the extent to which the origin of MNEs in countries with high levels of competition could be a source of competitive learning to allow those MNEs to adapt better to market-friendly reforms.

Regarding the samples, we employ the GSMA Intelligence Database (2018) to build our databases. The GSMA Intelligence is a source of mobile operator data, analysis and forecasts. With over 26 million individual data points (updated daily), the service provides coverage of the performance of more than 1,400 operators and 1,200 MVNOs (mobile virtual network operators) across 4,400 networks, 80 groups and 237 countries and territories worldwide (GSMA Intelligence, 2018).

1.4. THESIS STRUCTURE

This doctoral thesis aims to deepen our knowledge of the strategy followed by MNEs. In the next chapters, we focus on the main internationalization mechanism adopted by MNEs in recent years, namely CBAs, as well as on the key role played by the environment of both the host and the home country. Figure 1.1 shows a summary of the structure of the thesis, which is explained below.

The thesis is composed of five chapters. Chapter 1, *Introduction,* explains the main objective and contribution of this thesis, positioning it in the strategy and international business literature. This introductory chapter also presents the theoretical and empirical context in which the research takes place, explaining the theories employed and justifying the choice of the mobile telecommunications industry for the purpose of the research.

Chapter 2 is entitled *Ownership in Cross-Border Acquisitions and Entry Timing of the Target Firm*. In this chapter we examine how the entry timing of the target influences the initial and the post-entry percentage of ownership acquired by the multinational. We argue that targets that have entered into the market earlier send signals of lower uncertainty in contexts where first-mover advantages exist. As a consequence, MNEs are willing to buy higher levels of ownership in these early entrant targets, and to increase their participation in the subsidiary in the post-entry stage. We find support for these relationships and we also confirm how the market age and the innovative behaviour of the target reduce the importance of leading time as a determinant of the ownership decision.

The contribution of this first empirical study is threefold. First, while previous studies on ownership decisions have mainly focused on ownership determinants at country and MNE level, here we focus on an attribute of the target firm, namely the time elapsed between the entry of the pioneer and the entry of the target company into the market. This is a key factor that influences current and potential performance in industries where first-mover advantages exist (Gómez & Maícas, 2011). In this way, we integrate the literature on first-mover advantages into the analysis of the ownership strategy for cross-border acquisitions, responding to the call of Zachary et al. (2015) for the incorporation of a broader view in the analysis of market entry. Second, we incorporate a dynamic perspective in the study by analyzing the effect of the entry timing not only on the initial level of ownership acquired, but also on the variation in ownership in the post-entry period. Although recent literature has begun to analyze the variation of ownership strategies over time, the effect of the entry timing on this dynamic process has not previously been analyzed. Finally, as the market matures and subsidiaries introduce new technologies, the advantages of being a pioneer erode. This will make the entry timing less relevant as a determinant of the ownership decision.

Chapter 3, *Ownership in Cross-Border Acquisitions by Emerging Multinationals*, also focuses on CBAs as the most frequent entry mode. Although prior studies on CBAs have analyzed the determinants of ownership strategies, there is still a quest for evidence on how the differences between the characteristics of the home and the host markets affect the percentage of ownership. Prior studies have acknowledged that entering host countries with greater uncertainty

makes multinationals reluctant to acquire high levels of ownership in subsidiaries. Nevertheless, EMNEs are usually used to operating under greater levels of uncertainty than AMNEs. This may imply that, when entering an emerging host country, an EMNE will be more likely to acquire a higher level of ownership than an AMNE. We use the mobile telecommunications industry as our research setting to provide empirical evidence of the interaction effect of the advanced versus emerging nature of the host and home countries on the ownership percentage acquired in CBAs. Our results confirm that the characteristics of both the home and the host countries are relevant in explaining the ownership strategies of MNEs.

The main contribution of Chapter 3 is twofold. First, we provide empirical evidence for the recent debate on whether the internationalization strategies followed by EMNEs are similar to the traditional patterns of AMNEs (Guillen & Garcia-Canal, 2009; Ramamurti, 2012), and analyze the extent to which EMNEs differ from AMNEs in their ownership strategies in emerging countries. Secondly, our research centers on the global mobile telecommunications industry, and includes a large number of telecom MNEs and countries. This allows us to expand the prior studies in two ways – first, by considering how the effect of the level of development of the host and the home countries determines an MNE's ownership strategy in a regulated industry, and second, by extending the analysis to an international setting. Previous studies have usually been limited to a few firms or countries (Jakopin, 2008). Our study includes 53 mobile groups that come from 35 home countries and have invested in 82 host countries.

Chapter 4, the third empirical study, is entitled *Speed of Institutional Change and Subsidiary Performance: The Impact of Home Country Learning*. This chapter examines the role played by home country learning in the relationship between the speed of institutional change and subsidiary performance. Building our reasoning on the literature on the dynamic institution-based view and institutional advantages, we argue that a higher speed of change in market-supporting institutions reduces subsidiary performance. We posit that some subsidiaries can take advantage of the institutional and competitive learning that their parent multinational enterprises have obtained in their home countries to face institutional changes. Specifically, our analysis focuses on the origin of multinationals – either in highly competitive countries or in emerging countries. Our research takes a wide approach by including the effect of the speed of institutional change in 144 countries in the mobile telecommunications industry.

The contribution of Chapter 4 is twofold. First, under the lens of the dynamic institution-based view, we analyze the importance of home country learning in reducing the negative effect of rapid institutional change on subsidiary performance. We respond to the call to incorporate the home country conditions in the institutional change research, as well as the need to deepen our understanding of the relationship between institutional changes and firm performance (Cuervo-Cazurra, Gaur, & Singh, 2019). To our knowledge, our research is the first attempt to analyze the extent to which subsidiaries can benefit from the institutional advantages developed by their parent MNEs in their home countries as a consequence of their competitive and institutional learning. Second, we provide additional

empirical support for the dynamic institution-based view of ownership strategy. While prior studies have focused on emerging economies (Banalieva et al., 2018) or subnational regions (Banalieva et al., 2015), we use a wide sample that includes 352 subsidiaries from 77 MNEs located in 144 developed and emerging economies from 2001 to 2017.

Figure 1.1. Global structure of the doctoral thesis

Finally, Chapter 5 contains our *Summary and Conclusions* and gives a general review of the arguments and results obtained in the doctoral thesis. In addition, Chapter 5 presents the conclusions and practical implications deriving from the dissertation that may be useful for policy makers and managers.

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CHAPTER 2

OWNERSHIP IN CROSS-BORDER ACQUISITIONS AND ENTRY TIMING OF THE TARGET FIRM

2.1. INTRODUCTION

Cross-border acquisitions (CBAs), as key mechanisms in the internationalization of multinational enterprises (MNEs), have received increasing attention from international business literature (Cuypers, Ertug, & Hennart, 2015; Lahiri, Elango, & Kundu, 2014; Powell & Rhee, 2016). One of the most important decisions that firms have to take when they face a CBA is the level of equity ownership, as it has implications in terms of control, risk and resource commitment (Anderson & Gatignon, 1986) and the likelihood of survival (Li, 1995). In order to select the adequate level of ownership, MNEs should balance the expected benefits and the costs derived from different levels of ownership (Chari & Chang, 2009), assessing the contribution of the acquisition in the generation of competitive advantages and the subsequent risks. These risks increase in contexts where assessment of the potential value provided by the acquisition is more complex. In contrast to domestic acquisitions, MNEs that expand abroad through CBAs have to cope with higher levels of uncertainty derived from the differences in economic, social and political structures compared to their home countries (Shimizu, Hitt, Vaidyanath, & Pisano, 2004). This uncertainty can be seen both from an *ex ante* and an *ex post* perspective (Chari & Chang, 2009). *Ex ante* uncertainty is related to information asymmetries and adverse selection problems, while *ex post* uncertainty refers to problems of moral hazard and opportunism related to managers' discretion in post-acquisition decisions. Both types of uncertainty make it difficult for MNEs to assess the potential of value creation in CBAs, and reduce the incentives to acquire high levels of ownership in the new subsidiary (Chari & Chang, 2009).

Identifying the factors that influence the uncertainty that acquirers face will help companies to improve their decision-making process. Previous studies have identified several external and internal factors that influence the percentage of ownership held by MNEs (Xie, Reddy, & Liang, 2017). Malhotra and Gaur (2014) demonstrate how geographic distance influences both *ex ante* and *ex post* uncertainty. Similarly, other authors demonstrate that environmental distance favours or diminishes the level of uncertainty that affects the firm in its decision (Dow, Cuypers, & Ertug, 2016; Liou, Chao, & Yang, 2016). Other external factors, such as country risk (Chari & Chang, 2009), institutional pressures (Chan & Makino, 2007) and political influences (Pan et al., 2014), have been considered. The literature has also analysed the role in the ownership decision of MNE-level factors, such as international experience in different environments (Powell & Rhee, 2016) and the adoption of English as an external reporting language in the company (Jeanjean et al., 2015). However, these prior studies have mainly focused on characteristics of home and host markets and on the attributes of the acquirer firm, ignoring the study of one of the key parties influencing the level of uncertainty—the target firm. Except for one study (Chari & Chang, 2009), the influence of the target firm's characteristics in the decision on level of ownership acquired by the MNE has been underexplored.

Targets possess attributes that can impact the *ex ante* and *ex post* uncertainties of the acquisition process and thus influence MNEs' incentives to acquire a higher or lower level of ownership. In contexts where first-mover advantages exist, earlier entrants obtain a higher performance than late newcomers (Lieberman & Montgomery, 1988, 1998). The entry timing of the target firm can act as a signal for its

potential to be profitable in the future, reducing uncertainty and thus increasing the MNE's willingness to hold a higher level of ownership. To our knowledge, an analysis of entry timing has not been previously integrated into the study of equity ownership in CBAs.

Furthermore, previous studies have adopted a static viewpoint by focusing on the initial ownership acquired by MNEs. In contrast, this research insists on the importance of considering the CBA as a dynamic process that begins with selection of the target and negotiation of the initial level of equity to acquire, and continues with the post-acquisition period during which the MNE should integrate the subsidiary into its organizational structure (Shimizu et al., 2004). After the initial acquisition, where *ex ante* and *ex post* uncertainties can be seen as key factors in determining the ownership initially acquired, MNEs' perception of the potential of the target to generate value may change as a consequence of learning; thus, MNEs might adapt their levels of ownership to the perceived uncertainty. For instance, Inkpen and Beamish (1997) posit that partial ownership is usually turned into full ownership as MNEs gain knowledge of the local conditions and as partner dependency decreases. Other studies show that companies complete acquisitions sequentially, not all in one go at the outset (Xu, Zhou, & Phan, 2010). In this vein, studies have recently started to analyse the changing position of MNEs' commitment when developing CBAs to gain strategic flexibility. As MNEs face initial *ex ante* and *ex post* uncertainty, they prefer to enter through low-commitment modes. Once they have gained experience and information from the new market and partners, they can decide to increase their commitment (e.g. establish a wholly owned subsidiary), to decrease it or even to terminate the relationship (Petersen, Welch,

& Welch, 2000). Although recent studies have shed light on this topic (Li & Li, 2010; Puck, Holtbrügge, & Mohr, 2009; Putzhammer et al., 2018; Santangelo & Meyer, 2011; Swoboda, Olejnik, & Morschett, 2011), prior studies have not considered the role of entry timing of the target firm in signifying potential performance that can affect post-entry ownership variations.

The objective of our study is to analyse the effect of the entry timing of the target firm on the level of ownership held by the MNE when a CBA takes place by integrating the equity ownership and first-mover literatures through a dynamic perspective. Firstly, we propose that, as the time elapsed between the entry of the pioneer and the target—the leading time—increases, the ownership of that target initially acquired by the MNE will be lower. Secondly, with the aim of incorporating a dynamic perspective into the study, we also analyse the effect of leading time on variations in the level of ownership after the initial acquisition. Finally, given that first-mover advantages erode with market age and the introduction of new technologies (Gómez, Lanzolla, & Maícas, 2016), we expect that these two moderating factors will weaken the relationship between leading time and initial ownership and post-entry variations of ownership.

The contribution of this article is twofold. Firstly, while previous studies on ownership equity have mainly focused on country-level and MNE-level determinants, we focus on a key target attribute—namely, the leading time between the entry of the pioneer and that of the target into the market. This is a key variable that influences current and potential performance in those industries where first-mover advantages exist (Gómez & Maícas, 2011). In this way, we integrate the first-mover advantages literature into the analysis of ownership

strategy in CBAs, responding to the Zachary et al.'s (2015) call for a broader view of business entry. These literatures have usually been treated independently, with the exception of Isobe, Makino, and Montgomery (2000), who find a negative relationship between the degree of a foreign firm's control over a joint venture and the early entry of this foreign firm in an emerging market.

Secondly, we incorporate a dynamic perspective into the study by analysing the effect of leading time not only on the initial level of acquired ownership, but also on the variation in ownership level in the post-entry period. Although prior literature has recently started to analyse variation in entry modes and ownership strategies over time, the effect of leading time on this dynamic process has not previously been analysed. Moreover, as the market matures and subsidiaries introduce new technologies, first-mover advantages are eroded. This will make leading time less relevant as a determinant of the ownership decision.

2.2. LITERATURE REVIEW

2.2.1. Initial ownership level in foreign market entry

Choosing the initial level of ownership in a CBA is an important decision when MNEs enter into foreign markets. Acquisition of a higher level of ownership in the target firm allows complete control over operations, facilitating carrying out the functions of management within the company and access to a greater percentage of the profits; but it also entails greater risks and costs due to the commitment of resources and a lack of flexibility (Anderson & Gatignon, 1986). Alternatively, a lower level of ownership provides access to complementary resources that were not previously available and

facilitates the diversification of risks (Anderson & Gatignon, 1986). The flip side of a lower level of ownership is that it leads to potential opportunistic costs associated with the post-acquisition integration, and to a lack of control. Previous studies have analysed the optimal percentage of ownership held by MNEs in terms of these costs and profits, highlighting the role of market imperfections in this important decision (Chari & Chang, 2009; Li & Li, 2010). Market imperfections, such as adverse selection and moral hazard, result in higher transaction costs and arise from a lack of knowledge of the host country (Malhotra & Gaur, 2014).

When MNEs expand to a new host market through a CBA, they often lack sufficient knowledge of the new context. The environment in their home country may be substantially different, which increases the challenge of understanding the complexities of doing business in the host country (Kostova, 1999; Mezias, 2002). Because of differences in culture, norms and regulations, political and social structures, or economic conditions, companies face the difficulties inherent in being foreign in the new environment (Hymer, 1960, 1976; Johanson & Vahlne, 1977). The consequent information asymmetry does not allow them to assess properly the value of the acquired target and is manifested in two forms: the *ex ante* problem of adverse selection and the *ex post* problem of moral hazard.

Ex ante uncertainty, rooted in the information economics literature (Akerlof, 1970), arises because acquirers need to gather information about the target firm, the industry in which it operates and the country where it is established (Shimizu et al., 2004). This information helps acquirers to evaluate and then manage the target firm. In an acquisition, targets have better information about

themselves than the acquirer has. The target company has greater incentives to disclose positive information to potential acquirers, which leads to an adverse selection problem (Balakrishnan & Koza, 1993; Reuer & Koza, 2000). As a possible solution to asymmetric information, MNEs may buy a small share in the target firm. Prior shareholders of the subsidiary will retain higher levels of equity to transmit a credible signal of confidence about the quality of the target (Chen & Hennart, 2004).

The *ex post* argument is grounded in the literature on transaction costs economics (Anderson & Gatignon, 1986; Hennart, 1991; Williamson, 1979). After the MNE has acquired a subsidiary, the latter has tacit knowledge about the business that can be critical to working effectively in the local environment, and thus to the success of the firm. Local managers have an understanding of suppliers and governments, have prior experience in managing relationships with the local workforce, and are familiar with the preferences of consumers. Therefore, MNEs prefer to delegate responsibilities to them (Kogut & Singh, 1988). The acquirer has to face the risk of a change in the motivation and behaviour of local managers after the acquisition. This lower motivation comes from the erosion of managers' incentives (Williamson, 1985) since, in the previously independent local company, they were subject to the discipline of the stock market and now they do not benefit from their direct interest in the ownership (Chari & Chang, 2009). In addition, Chen and Hennart (2004) point out that since acquisition contracts cannot be fully specified, managers of target firms may behave in an opportunistic way after the acquisition. Managers may delay the transfer of critical tacit assets such as knowledge and relationships with the local market

to continue to be useful to the acquirer. Anderson and Gatignon (1986) posit that to confront this internal uncertainty, the acquirer should know how to evaluate managers' results and incentivize them. This may be easier in domestic acquisitions, but in a CBA it is necessary to have prior international experience to be able to identify and confront managers' opportunistic behaviour. When international experience is low or home and host institutional contexts differ, low control levels can be more efficient (Anderson & Gatignon, 1986). As a consequence, the acquirer will prefer to take less equity to preserve the incentives of the target company's managers to continue working with the same self-demanding levels as before the acquisition (Dow et al., 2016).

In sum, when companies are faced with high uncertainty, shared ownership structures can be employed to reduce the problem of adverse selection and moral hazard, and MNEs will tend to acquire lower levels of ownership (Malhotra & Gaur, 2014). Shared ownership encourages the acquired firm to disclose accurate information and enhances co-operation in the post-acquisition phase.

Previous literature has analysed factors that influence uncertainty and the subsequent ownership decision. For instance, geographic, institutional, linguistic and religious distances have been shown to increase uncertainty and reduce the level of ownership held by MNEs (Cuypers et al., 2015; Demirbag, Glaister, & Tatolu, 2007; Malhotra & Gaur, 2014), while MNE international experience increases the level of equity ownership (Powell & Rhee, 2016). However, these prior studies have mainly focused on characteristics of home and host markets and on the attributes of the acquirer firm, ignoring the study of one of the key parties influencing the level of uncertainty, the target firm. The influence of the characteristics of the

subsidiary in the decision on the level of ownership acquired by the MNE has been underexplored.

2.2.2. Ownership variation during the post-entry time

Once the acquirer has invested in the target firm, uncertainty may be reduced because the former can obtain direct information from the company, the local managers and the environment, which can lead to post-entry variation in its resource commitment in the subsidiary (Clark, Pugh, & Mallory, 1997; Petersen et al., 2000; Puck et al., 2009; Putzhammer et al., 2018; Swoboda et al., 2011). Therefore, acquirers that entered with low control modes can vary their ownership in the target firm once they gain experience and learning. This ability and preparedness to change ownership in the post-entry time has been conceptualized as "strategic flexibility" (Petersen et al., 2000, p. 689). Although research in this field is still scarce, some authors have tried to determine the factors that influence post-entry changes in internationalization mode (Calof & Beamish, 1995; Petersen et al., 2000), in conversion from joint ventures to wholly-owned subsidiaries (Puck et al., 2009), in increased ownership (Jeanjean et al., 2015; Song, 2017), or in divestment and termination (Belderbos & Zou, 2009; Petersen et al., 2000). Based on organizational learning and experiential learning theories, we can group the determinants of this variation in the resource commitment during the post-entry time into four categories: internal environment, external environment, managerial attitude and performance (Swoboda et al., 2011).

The internal environment refers to factors that are potentially under the control of a firm, such as strategy and resources (Calof &

Beamish, 1995). After entry, the MNE obtains direct information from the activity of the target and is able to better evaluate its performance and managers' behaviour (Petersen et al., 2000), and the sources of uncertainty that existed prior to the entry tend to disappear. With this additional information, the MNE could decide to increase its resource commitment. It should be noted that the knowledge the MNE gains from the target can also be negative (e.g. because the MNE becomes aware that the initial valuation of the target was overestimated) and decide on disinvestment and even termination of the venture (Driffield, Mickiewicz & Temouri, 2016; Petersen et al., 2000).

Regarding the external environment, changes in factors that are outside the direct control of the MNE, such as political stability, government policy or competition, could cause changes in ownership levels. Deterioration of environmental factors could lead to disinvestments, while their improvement could result in a greater commitment of resources (Calof & Beamish, 1995).

Swoboda et al. (2011) also discuss about managerial attitudes as determinants of changes in ownership levels, where attitudes are defined as managers' intentions, beliefs and feelings about commitment (Calof & Beamish, 1995). Decisions are not always made rationally. Sometimes, managers' decisions are based on intuition, which can be equal to or more efficient than rational decisions (Dane & Pratt, 2007). The motivation to increase the commitment of resources may derive from managers' personal perception of favourable conditions (Boddewyn, 1985), or by personal attitudes (Fletcher, 2001).

Finally, the performance achieved by the target firm can also influence the level of commitment (Swoboda et al., 2011). The current and potential performance of the target is a decisive variable to change their ownership level in the post-entry time. If MNEs estimate that the target has great potential performance in the future, the probability of increasing the resource commitment will be higher; however, if they estimate low future performance, the effect may be the opposite (Petersen et al., 2000).

2.2.3. Entry timing and first-mover advantages

The literature on entry timing has been extensive since the publication of Lieberman and Montgomery's seminal article in 1988. First-mover advantages arise when the pioneers in a market obtain benefits in terms of profitability, value creation or survival (Lieberman & Montgomery, 2013). These advantages derive from the exploitation of scale and learning economies and reputation advantages, the creation of customers' switching costs, or the ability to create links with key stakeholders such as local government or suppliers (Gómez & Maícas, 2011; Lieberman & Montgomery, 1988). There is also a literature that focuses on the existence of first-mover disadvantages (Lieberman & Montgomery, 1988) that derive from the ability to 'free-ride' in first-mover investments, the resolution of technological and market uncertainty, the existence of technological discontinuities that provide 'gateways' to new entrants, and early entrants' difficulties adapting to environmental changes (Lieberman & Montgomery, 1988).

Focusing on a context where first-mover advantages exceed the disadvantages, academic research has identified three groups of

factors under which early entry is a profitable strategy (Suarez & Lanzolla, 2007). First, resources and capabilities at the firm level, such as management skills (Murthi, Srinivasan, & Kalyanaram, 1996) and product development skills (Robinson & Chiang, 2002) favour the exploitation of first-mover advantages. Second, environmental factors, such as market transparency, environmental uncertainty and the stage of the industry lifecycle determine the initial first-mover advantages enjoyed by the pioneer and their sustainability (Suarez & Lanzolla, 2007). Thirdly, isolating mechanisms prevent late entrants from catching up with the pioneers (Rumelt, 1987). The most widely accepted classification of isolating mechanisms (Lieberman & Montgomery, 1988) is based on three different categories: a) technology leadership, through the learning and experience curve or the existence of R&D patents; b) the pre-emption of scarce assets, which includes the advantages of choosing niche markets or economies of scale derived from investment in equipment; and c) switching costs and buyer choice under uncertainty arising from the formation of habits in buyers and the firm's reputation.

Previous research has usually demonstrated the existence of a positive relationship between early entry and firm performance (García-Villaverde, Ruiz-Ortega, & Parra-Requena, 2012; Gómez & Maícas, 2011), but mixed or contradictory results can also be found. For this reason, researchers have tried to address the question of whether early-mover advantages are static or can be eroded (Ferrier, Smith, & Grimm, 1999). There are circumstances that cause the disadvantages of being early entrants to outweigh its advantages (Lieberman & Montgomery, 2013). External factors can undermine the persistence of first-mover advantages through their negative impact

on the effectiveness of isolating mechanisms (Gómez et al., 2016). Boulding and Christen (2003, 2008) show that, in more mature markets, the costs associated with late entry are compensated by some advantages associated with being a late entrant and conclude that pioneer advantages erode over time, usually after twelve to fourteen years. Similarly, Gómez et al. (2016) demonstrate that a technological discontinuity can reduce the sustainability of technological leadership or the effectiveness of resource pre-emption, negatively affecting the persistence of first-mover advantages.

2.3. HYPOTHESES

2.3.1. Subsidiary entry timing and initial ownership level

As noted, decisions about the initial level of acquired ownership are strongly conditioned by the existence of *ex ante* and *ex post* uncertainty resulting from information asymmetries. Information economics literature suggests that acquisitions are hazardous due to the adverse selection problem between acquirers and potential targets (see, for instance, Reuer & Ragozzino, 2008). Another source of uncertainty in these decisions is the existence of moral hazard because of managerial opportunism. In order to reduce this uncertainty, MNEs may choose to acquire lower levels of ownership in the target company (Balakrishnan & Koza, 1993; Chari & Chang, 2009).

One way to deal with this uncertainty is to pay more attention to the characteristics of target firms. Recent studies have emphasized the importance of taking into account the role of the target company in strategic decisions (Cuypers, Cuypers, & Martin, 2017). Some target attributes may help MNEs to assess the potential of the company to generate future profitability better, decreasing *ex ante* and *ex post*

uncertainty. In a context of asymmetric information, and according to signalling theory (Spence, 1974; Riley, 2001), signals can be launched by companies to convey private information and improve the existing information imbalance. Empirically, Reuer and Ragozzino (2012) show that taking into account the signals launched by target firms reduces asymmetric information problems and allows MNEs to make better decisions about the level of ownership. MNEs should therefore pay attention to the attributes of the subsidiary with the aim of reducing the level of perceived uncertainty, which will increase the incentive to take higher control of the target company.

In a context where first-mover advantages exist, one signal for MNEs of the potential of the target company will be its entry timing into the market. Early entrants are able to outperform late entrants in terms of profitability and market share (Lieberman & Montgomery, 2013). The leading time between the entry of the pioneer and the entry of the target company provides valuable information for MNEs when they decide the level of ownership to acquire in the target firm. If the acquired firm is an early entrant, MNEs receive valuable additional information about its greater expected performance, which reduces the cost associated with obtaining information to overcome the problem of adverse selection. In addition, early entrants usually enjoy a better reputation (Kerin, Varadarajan, & Peterson, 1992). As a consequence, the problem of adverse selection will be reduced. On the one hand, a better reputation decreases the acquiring company's costs derived from obtaining information about the target. On the other hand, the target firm enjoys a positive image, so it does not have as strong an incentive to retain ownership to transmit confidence to the acquirer. Therefore, when the subsidiary is an early entrant, MNEs

will perceive lower *ex ante* uncertainty than when it is a late entrant. Consequently, the initial ownership acquired will be lower as the leading time increases.

When first-mover advantages exist and the target firm is an early entrant, its advantage will depend on resources and capabilities that have been built over time, such as technological leadership, exclusive access to strategic geographical locations, reputation and pre-emption of scarce resources, among others (Lieberman & Montgomery, 1988). Thus, the success of the company will depend more heavily on the entry timing than on the specific skills of local managers and their incentives to collaborate after the entry. Even the resignation of a local manager in the post-entry period would not reduce the value of the assets acquired, reducing the moral hazard linked to *ex post* uncertainty. Therefore, when the subsidiary is an early entrant, MNEs will perceive lower *ex post* uncertainty. Thus, the initial ownership acquired will be lower as the leading time increases.

As a consequence, *ex ante* and *ex post* uncertainties surrounding ownership acquisitions increase with the leading time—that is, the time elapsed from the entry of the pioneer and the entry of the subsidiary into the focal market. Consequently, MNEs will acquire a lower level of ownership when the target has entered later into the market than when it was an early entrant.

> ***Hypothesis 1.*** *The percentage of ownership initially acquired is negatively related to the leading time between the entry of the pioneer and the entry of the target.*

2.3.2. Subsidiary entry timing and ownership variation during post-entry time

The extant literature has shown that many acquisitions are carried out sequentially to deal with information asymmetries (Xu et al., 2010). Although MNEs commit resources at the initial acquisition, they can change its ownership over time, either increasing or reducing it according to the information obtained from the new subsidiary and its environment (Belderbos, Tong, & Wu, 2019; Putzhammer et al., 2018; Song, 2017). During post-entry time, MNEs will obtain more precise information about the internal conditions and the external environment of the subsidiary, which can allow MNEs to better assess its potential to take advantage of the new opportunities available. This new information may lead to positive or negative variations in the ownership held by the MNE in the target firm (Swoboda et al., 2011).

First, with regard to the internal conditions of the target firm, the possession of first-mover advantages is observed by the MNE before the initial acquisition based on the available market information and the data that the target provides to the acquirer. Nevertheless, adverse selection may bias this information (Petersen et al., 2000). In the post-entry period, the MNE obtains direct information about the target, helping it to assess the existence and scope of first-mover advantages and the resources and capabilities that can help to maintain them over time. For example, MNEs can better assess the level of explorative capabilities possessed by subsidiaries, which previous studies have shown to be positively related to potential performance (Lisboa, Skarmeas, & Lages, 2011). Subsidiaries that entered earlier in the market and enjoy first-mover advantages possess specific skills, knowledge and greater experience and, therefore, they have

developed higher explorative capabilities than later entrants in both market and product development. The confirmation of the existence of explorative capabilities constitutes a signal of positive expected performance. Subsequently, MNEs are willing to increase their resource commitment in these subsidiaries. Likewise, the existence of key intangible assets possessed by early entrants, which could not be previously observed (just inferred) -such as technological capabilities that lead to first-mover advantages (Lieberman and Montgomery, 1988)- may also be confirmed. These explorative capabilities and intangible resources possessed by early entrants are a source of future market value and financial performance (Tahat, Ahmed, & Alhadab, 2018), which can motivate MNEs to increase their ownership once they are verified.

Second, after the initial acquisition, the acquirer also obtains direct information regarding the external environment in which the subsidiary develops its activity. Since a lack of familiarity with the host country conditions is one of the reasons of initially acquiring lower levels of ownership in CBA (Anderson & Gatignon, 1986), once the MNE gains experience in the host country and confirms its positive expectations about the subsidiary, we can expect that MNEs will be willing to acquire higher levels of ownership (Song, 2017). However, it should be noted that host countries differ in terms of their environmental stability (Makino, Isobe, & Chan, 2004). According to Swoboda et al. (2011), MNEs change their ownership positions depending on the evolution of environmental conditions, such as government regulations (Puck et al., 2009), corruption levels (Driffield et al., 2016) and labor costs (Song, 2017). Although these external changes can create shocks in the market, Vecchiato (2015) posits that

early entrants have been able to develop dynamic capabilities to anticipate and better adapt to the environmental shocks than late entrants as they have been competing in the market for a longer time and so have greater experience. For this reason, MNEs will have more incentives to increase their ownership in early entrants once first mover advantages have been confirmed since the dynamic capabilities developed serve to counteract the uncertainty that comes from a changing environment.

To summarize, after the initial acquisition, MNEs can better evaluate the potential of the subsidiary to generate future profitability and to counteract environmental changes that could diminish it. Driffield et al. (2016) insist on the importance of a target's characteristics to explain changes in ownership levels. Our logic is that those subsidiaries that are early entrants in a market may have developed valuable skills and resources that launch signals concerning higher future profitability. Among them, we can mention explorative capabilities that facilitate the identification of market opportunities, technological capabilities to exploit these opportunities and dynamic capabilities to identify and better adapt to environmental changes. Although MNEs can infer the possession of these valuable assets at the moment of the initial acquisition based on the target's financial statements, MNEs can only corroborate the existence of these resources after the initial acquisition. When first-mover advantages exist and MNEs verify them, MNEs will be willing to commit more resources to early entrants than to late entrant subsidiaries during the post-entry period since the sources of uncertainty are reduced. In this context, the size of these first mover advantages are often linked to the leading time between the entry of

the pioneer and that of the subsidiary. Conversely, the advantages diminish when the subsidiary delays its entrance into the market, which reduces the incentives to buy higher shares of ownership.

> ***Hypothesis 2.*** *The variation in the percentage of ownership after the initial acquisition is negatively related to the leading time between the entry of the pioneer and the entry of the subsidiary.*

2.3.3. The moderating effect of market age

Previous studies have found that early entry advantages dissipate over time (Brown & Lattin, 1994; Huff & Robinson, 1994; Robinson & Fornell, 1985). The main reason for this is that the isolating mechanisms that allow first-mover advantages (i.e. pre-emption of scarce assets, switching cost and technological leadership) (Lieberman & Montgomery, 1988) weaken over time as the market matures. If isolating mechanisms fail and first-mover advantages are eroded, the leading time will lose its value in reducing uncertainty and signalling potential performance.

Isolating mechanisms might lose value with market age for different reasons. Firstly, early-mover targets can pre-empt scarce assets. This confers early entrants a strong market position that, at the same time, constitutes an obstacle for followers to overcome (Boulding & Christen, 2003). Nevertheless, the appearance of new consumers and a change in preferences will widen the market and weaken the initial position of early entrants, thus decreasing first-mover advantages. Secondly, switching costs, which arise when consumers face additional costs to change from early entrants to a new firm due to procedural, financial and relational costs (Burnham, Frels, & Mahajan, 2003), might also decrease over time. Late entrants

have to invest resources and time to attract established consumers, which reduces their performance. However, when the market matures, consumers are more familiar with the products and the competitors that supply them, which will erode the existing first-mover advantages. Thirdly, early entrants can enjoy technological leadership in terms of the experience curve (Lieberman & Montgomery, 1988). As a consequence of learning economies, early entrants are able to produce more efficiently due to an increase in cumulative production. This allows early entrants to reduce costs in comparison to late entrants and enjoy higher profitability (Ghemawat & Spence, 1985). However, as time passes, later entrants also learn and are able to develop their own experience curves. Therefore, first-mover advantages derived from experience decrease progressively, finally disappearing. Thus, the advantages of early entrants may be eroded over time.

As a consequence, leading time loses importance as a determinant of uncertainty and potential performance because isolating mechanisms are weakened and first-mover advantages are eroded. Consequently, although MNEs could have more incentives to hold higher levels of ownership in subsidiaries with lower leading time (both at the initial entry and during the post-entry period), this negative relationship will be less negative as the market matures.

> ***Hypothesis 3a.*** *Market age positively moderates (i.e. weakens) the relationship between the percentage of ownership initially acquired by an MNE and the leading time between the entry of the pioneer and the entry of the subsidiary.*

Hypothesis 3b. *Market age positively moderates (i.e. weakens) the relationship between the variation of percentage of ownership after the initial acquisition and the leading time between the entry of the pioneer and the entry of the subsidiary.*

2.3.4. The moderating effect of the introduction of a new technology

In addition to market age, the increasing dynamism of many industries makes first-mover advantages hard to maintain (Suarez & Lanzolla, 2007). For example, previous studies agree that rapid technological evolution makes it difficult for early entrants to maintain any advantage (Fosfuri, Lanzolla, & Suarez, 2013). The introduction of a new technology constitutes an important factor that can erode first-mover advantages (Lavie, 2006), impairing the effectiveness of isolating mechanisms. There are several reasons for this erosion. Firstly, new technologies reduce the likelihood of the pre-emption of scarce assets being sustained. The emergence of new technologies may, for example, change the relationship of the company with its current providers, modifying the value of important resources, even leading to a change in these providers (Gómez et al., 2016). Secondly, the effectiveness of switching costs will also be adversely affected. A new technology can affect experience (Wernerfelt, 1985) and the formation of preferences (Carpenter & Nakamoto, 1989), two antecedents of switching costs (Suarez & Lanzolla, 2007). New generations of products or services will appear and the existing ones will become obsolete (Anderson & Tushman, 1990). Thirdly, technological leadership is probably the isolating mechanism that can fail most often as a result of the introduction of a new technology. Firms that entered the market first will have gained

advantages derived from experience or learning curves, obtaining a privileged position. However, the introduction of a new technology decreases the value of prior experience and can result in advantages for those companies that introduced the technological discontinuity into the market (Christensen, 2013), even if they were late entrants.

The innovative behaviour of a subsidiary through the introduction of a new technology provides a signal about its potential for obtaining future profitability, thus reducing uncertainty. If the new technology is successful, the subsidiary that first exploits it can achieve extraordinary results by destroying the benefits of prior technologies. This explains why companies that have advantages in old technologies are usually reluctant to introduce technological changes that can cannibalize the previous profitability (Christensen, 1997; Hill & Rothaermel, 2003). A subsidiary that introduces a new technology into the market assumes risks, but it can achieve a technological leadership to obtain extraordinary profits in the future by eroding the advantages of prior entrants. As a consequence, the introduction of a new technology by a subsidiary launches a positive signal that increases its attractiveness for current and potential investors (Reuer & Ragozzino, 2012).

In sum, the introduction of a new technology erodes first-mover advantages and reduces the negative impact of leading time on the level of ownership in a subsidiary held by MNEs. Target companies that introduce new technologies will be especially attractive for the acquiring MNE, with the subsequent incentive to acquire higher levels of ownership initially and to increase the level of ownership held in these targets, even if they are late movers.

Hypothesis 4a. *The introduction of a new technology by a subsidiary positively moderates (i.e. weakens) the relationship between the percentage of ownership initially acquired by a MNE and the leading time between the entry of the pioneer and the entry of the subsidiary.*

Hypothesis 4b. *The introduction of a new technology by a subsidiary positively moderates (i.e. weakens) the relationship between the variation of the percentage of ownership after the initial acquisition and the leading time between the entry of the pioneer and the entry of the subsidiary.*

2.4. SAMPLE, METHODS AND VARIABLES

2.4.1. The mobile communications industry

The empirical analysis is carried out in the mobile communications industry. The available data offer the quarterly evolution from 2000 to 2016 in the ownership structure of 59 subsidiaries in which 36 MNEs participated as a result of 90 CBAs in 50 countries.[2] Accordingly, we have a total of 90 observations of the initial ownership acquired and 2,231 observations referring to the ownership held by MNEs in each one of the subsidiaries for each period after the initial acquisition. Our information comes from multiple sources, but the main one is the GSMA Intelligence (2018) dataset. This publication gathers information on several variables of interest, such as the existing telecommunications MNEs, the ownership held in each subsidiary, and the date of entry of each subsidiary into each market and technology. The information about

[2] See Appendix 1 for a detailed list of the different host and home countries included in the sample. It should be noted that GSMA only provides information at the national level. As a consequence, countries where competition takes place at subnational level, such as the United States, Canada, Brazil or India, cannot be included in our sample of host countries.

CBAs and entry timing is complemented by industry and corporate reports. Other sources of information, such as the Heritage Foundation and the World Development Indicators databases, have been used for control variables.

The mobile communications industry has seen impressive growth in the last two decades, and it has been the focus of attention of an increasing number of researchers (Birke & Swann, 2006; Fuentelsaz, Garrido, & Maícas, 2015; Gómez et al., 2016; Kitchen, Martin, & Che-Ha, 2015). This industry is especially appropriate for our research purposes for several reasons. Firstly, it is an industry with a high level of internationalization. For instance, 52 per cent of firms in the third quarter of 2017 were subsidiaries of telecommunications MNEs. The internationalization of these MNEs has been recent. At the beginning of 2000, there were 56 MNEs operating in 142 countries with 293 entries, while at the end of 2016, 76 MNEs were present in 205 markets, with a total of 926 entries. This means that 68.4 per cent of entries have taken place during the period under analysis. Moreover, this international expansion has mainly taken place through CBAs because of government restrictions.[3]

Secondly, first-mover advantages have been demonstrated to exist in an industry where competition takes place at the national level (Gómez & Maícas, 2011; Whalley & Curwen, 2012).[4] It has been

[3] In this industry, governments usually determine the number of competitors. Companies that operate in each national market must obtain a licence to develop their activity, since the radio spectrum is considered a scarce resource (Gruber, 2005). The government decides the number and types of licences. At the European level, for instance, usually only three or four firms operate in each country. This means a restriction to the entry of new competitors through greenfields and makes CBAs the most frequent entry mode in this industry. For the countries included in our sample, only 35 per cent of entries were greenfields.

[4] Consumers can only choose between competitors that operate in the same geographical market where they are located. This explains why the analysis of first-mover advantages in this industry has been limited to country-level competition (Gómez & Maícas, 2011).

argued that early movers possess significant advantages that late entrants have found difficult to overturn as a consequence of isolating mechanisms (Atiyas & Doğan, 2007; Bijwaard, Janssen, & Maasland, 2008; Whalley & Curwen, 2012).[5]

Thirdly, this industry allows a detailed identification of the entry timing of each firm from the beginning of the industry in the 1990s. We are thus able to identify the entry timing of subsidiaries and the leading time from the entry of the pioneer in each market. Moreover, this industry allows identification of the firm that introduced a new technology into the market. Over the last decade, the most important technological change in the industry has been the transition from the second (2G) to the third generation (3G), which allowed consumers to use the internet on their devices, and the progressive substitution of voice and text services by data exchange (Fuentelsaz, Maícas, & Polo, 2008).

2.4.2. Methods

The empirical analysis is developed in two stages that consider the target firm of each CBA as the unit of analysis. In the first stage, we analyse the effect of leading time on the percentage of initial ownership acquired by a MNE when it enters a market (Hypothesis 1) and the moderation effects of market age and the introduction of a new technology on this relationship (Hypotheses 3a and 3b). As the percentage of initial ownership is a limited dependent variable subject to an upper (100%) and a lower (10%) bound, a classic ordinary least squares regression model will give biased and inconsistent estimates

[5] A robustness analysis (not shown) has been carried out to confirm the existence of early-mover advantages in our sample. This analysis concludes that early entrants enjoy better results in this industry.

(Maddala, 1983). In this case, a Tobit regression analysis is recommended (Greene, 1993). This estimation technique has been adopted in prior studies that analyse the determinants of ownership levels (Chari & Chang, 2009; Cuypers et al., 2015; Dow et al., 2016; Malhotra & Gaur, 2014; Pan et al., 2014).

The second stage analyses the effect of leading time on variation in the percentage of ownership during the post-entry period (Hypothesis 2) and the moderating effect of market age and the introduction of a new technology on the prior relationship (Hypotheses 3b and 4b). As we will explain in the next subsection, ownership variation is also a limited dependent variable subject to an upper (90%) and a lower (-90%) bound. This variation is analysed for each subsidiary over time, so we have a panel dataset with a limited dependent variable. To avoid the problem of unobservable heterogeneity, we use a random-effects Tobit estimation with panel data (Arellano, 2003).

2.4.3. Dependent variables

The dependent variable in the first stage is the percentage of *initial ownership* that the MNE (acquiring firm) acquires in the subsidiary (target firm). In line with recent studies (Cuypers et al., 2015; Dow et al., 2016; Malhotra & Gaur, 2014), we use a continuous variable that is bounded between 10 per cent and 100 per cent.[6]

Our dependent variable for the second stage is the variation in the percentage of ownership (*ownership variation)* that MNEs have

[6] We follow the International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD) by considering the existence of a foreign direct investment when the multinational enterprise owns at least 10 per cent of the subsidiary's equity.

after the initial acquisition. This variable is calculated quarterly for each subsidiary after the initial entry until the last quarter of 2016. The variable is measured as the difference between the percentage that the MNE held in that quarter and the initial percentage of ownership acquired by the MNE. It takes the value 0 if the MNE has not changed its investment in the subsidiary, a positive value when the MNE has increased its participation, and a negative value when the MNE has decided to sell some of its investment in that subsidiary. Consequently, the variable is bounded between -90 per cent and 90 per cent.

2.4.4. Independent variables

Leading time. This variable is calculated as the number of quarters between the entry of the pioneer into the market and the entry of the subsidiary.[7] We consider that a firm was the pioneer if it was the first entrant into the market. Market pioneers show a time lag of zero, with positive values for followers or late entrants. Leading time is a constant variable over time. This measure has been previously used for similar purposes (see, for instance, Deng & Wang, 2016; Jakopin & Klein, 2012; Lieberman & Montgomery, 2013; Zachary et al., 2015).

Market age. This continuous variable reflects, in each period, the number of quarters elapsed since the emergence of the industry in each country—or, in other words, since the entry of the pioneer.[8]

[7] As the market pioneer, we select the company that first entered into the second generation of mobile communications, given the scarce acceptance among consumers of the first generation (1G or analog), that only achieved a penetration rate of 0.92 per cent at the beginning of 1990 (Gómez & Maícas, 2011).

[8] For example, imagine that the pioneer enters the market in the first quarter of 2002 and a second operator enters in the first quarter of 2005. The variable *market age* will take the

New technology introduction. This variable is defined through a dummy that takes the value 1 if the subsidiary was the first firm to introduce 3G services and 0 otherwise. As we work with panel data in the second stage, this variable can change its value from 0 to 1 from the period that the target launched 3G services (if this happened during the post-entry time).[9]

2.4.5. Control variables

As in previous studies, our models control for subsidiary-, MNE- and market-specific characteristics that can influence the level of ownership held in the two stages, that is, at the time of entry and in the post-entry period. With regard to subsidiaries' characteristics, we control for the *subsidiary size,* defined as the number of connections (in thousands) of the target firm in the market. Foreign firms will seek lower levels of ownership in local firms when these firms are larger than when they are smaller (Chari & Chang, 2009). We also control for the *subsidiary performance* measured through the EBITDA margin.[10] MNEs will tend to acquire higher levels of ownership in subsidiaries that show better performance, since this represents less uncertainty for the acquirer. In addition, previous literature has shown that subsidiary performance could be a determinant of the increase or decrease in the commitment of resources after the initial acquisition (Swoboda et al., 2011).

value 12 when the second operator enters the market. *Market age* is a time-varying variable that increases each quarter after the entry of the pioneer.

[9] If two or more subsidiaries in the same market introduced 3G services at the same time, this variable takes the value 1 for the two companies from the period in which they introduced 3G.

[10] The EBITDA margin is a ratio where the numerator is the total EBITDA obtained by the firm (total operating profit in the period before interest, tax, depreciation and amortization) and the denominator is the total revenue.

With regard to MNE characteristics, we control for *prior presence* in a given country since it is expected to positively influence the level of ownership held in subsequent entries into the same market (Kogut & Singh, 1988). Chen and Hennart (2004) consider that previous experience in the market can help MNEs to evaluate target firms better, which is expected to reduce uncertainty. To consider this possibility, we use a dummy variable that takes the value 1 when the MNE had at least one subsidiary operating in the target firm's country before the acquisition and 0 otherwise (Chari & Chang, 2009; Dow et al., 2016; Malhotra & Gaur, 2014). We also take into account the number of countries in which the MNE was operating as a measure of *international experience*. We expect that companies with more international experience will better manage the risks of foreign operations and will therefore prefer to acquire higher levels of ownership (Anderson & Gatignon, 1986; Kogut & Singh, 1988). Moreover, different levels of international experience can influence the subsequent decision to commit resources in the post-acquisition period (Putzhammer et al., 2018). Given that larger firms may perceive lower uncertainty in ownership decisions because of their greater product diversity, market power, experience or other resource endowments (Scherer & Ross, 1990), we also control for *parent size*, defined as the number of connections[11] of the MNE in all markets where it is present.

Referring to market characteristics, we have included variables that control for the conditions of the country where the subsidiary is located, as well as variables that control for the distance between the

[11] Connections are measured by the number of SIM cards registered in the network of the subsidiary at the end of each period (GSMA Intelligence, 2017).

conditions of the host and the home country of the acquirer. With regard to the variables that refer to the host country where the CBA takes place, we first include the *GDP per capita* (in thousands), provided by the World Development Indicators (WDI) database (World Bank, 2018). Countries with higher GDP per capita are usually considered as having lower uncertainty, thus being more attractive to international investment (Chan & Makino, 2007). In order to control for the country risk that can influence the ownership decision (Anderson & Gatignon, 1986; Dutta, Malhotra, & Zhu, 2016), we include the *GDP per capita growth* provided by the WDI database as a measure of economic fluctuations, as well as the *political stability* provided by the Worldwide Governance Indicators (World Bank, 2018). Additionally, as the industry is more mature and the knowledge is widespread, MNEs have fewer incentives to acquire higher levels of ownership to protect innovations and specific assets than in early stages in the industry (Anderson & Gatignon, 1986). To control for the maturity of the industry in the host market, we include *demand growth* (Li & Li, 2010) and level of *competition* by counting the number of firms present in each market at any given time (Gómez & Maícas, 2011; Gómez et al., 2016). We also control for the occurrence of a *technological change* in the market, because uncertainty increases when a shock occurs in the market. We understand that a technological change took place when 3G was introduced into the market, so the variable takes the value 0 before the introduction of 3G into the country and 1 thereafter. Finally, we proxy the level of regulatory restrictions on performing business in a country through one factor resulting from the three dimensions of the *market openness*

category of the Index of Economic Freedom obtained from the Heritage Foundation (Cebula & Clark, 2012).[12]

We also control for the distance between home and host market conditions through different variables. Firstly, we include the *geographic distance* between home and host countries. Distance increases firms' perceived uncertainty, as well as the agency and transaction costs for the acquirer (Malhotra & Gaur, 2014). In line with prior studies (Malhotra & Gaur, 2014; Malhotra, Sivakumar, & Zhu, 2009; Slangen & Beugelsdijk, 2010), we measure geographic distance, according to the Geobytes database, as the distance in kilometres between the capital cities of the acquiring and the target country. We also include *geographic distance squared* because the cost and benefit trade-off of full versus partial ownership varies at different levels of geographic distance (Malhotra & Gaur, 2014).

Secondly, it has been shown that when the linguistic and religious distances between the acquirer's home country and the target's home country are higher, the acquirer will tend to seek a lower equity share in the target (Dow et al., 2016). Accordingly, we include *linguistic distance* and *religious distance* measures in the analysis. Similar to previous studies (Dow et al., 2016), we use a composite index created by Dow and Karunaratna (2006) based on the distance between the main languages/religions of the two countries and the incidence of the main languages/religions of a country in another country (for more details, see Dow & Karunaratna, 2006; Dow

[12] The Index of Economic Freedom focuses on four key aspects of the economic environment over which governments typically exercise policy control. This index is based on 12 quantitative and qualitative factors, grouped into four broad categories, or pillars, of economic freedom. One of these pillars is the open markets category that includes trade, investment and financial freedom.

et al., 2016).[13] Thirdly, we include a measure of *institutional distance* (Xu, Pan, & Beamish, 2004). Following previous studies, we computed institutional distance as the absolute value of the difference between the Index of Economic Freedom of the home and the host countries (Jiang, Holburn, & Beamish, 2014). Finally, we include *economic distance* to control for differences between the GDP per capita in the home country of the MNE and the host country (Caves, 1996).

Additionally, in the second stage model, we include a dummy variable to control for whether the MNE has a majority or minority initial ownership of the subsidiary. The incentives to increase the level of ownership may be different in the two cases. We can expect that once the MNE has reached a majority ownership—and control—in the initial acquisition, the incentives to increase the equity level will be lower than in cases where the MNE has entered through minority ownership and wishes to gain control. As the ownership variations will depend on the information and experience that the acquirer gains from the target firm after the initial entry (Petersen et al., 2000), we control the number of periods that have elapsed since the initial ownership acquisition through the variable *post-acquisition time*. As the last effect could be not linear, we include the second order variable *post-acquisition time squared*. Finally, we also include time and group effects, thus controlling for different business environments over time and groups.

[13] Data were obtained 18 December 2018 from https://sites.google.com/site/ddowresearch

2.4.6. Descriptive statistics

Descriptive statistics for the initial ownership and ownership variation stages are shown in Tables 2.1 and 2.2, respectively. As can be seen in Table 2.1, the average initial ownership for the 90 CBAs in our sample is 63.98 per cent, with a standard deviation of 32.6 per cent, in line with previous studies (Chari & Chang, 2009; Malhotra & Gaur, 2014). During the post-entry time, on average, there is a positive ownership variation of 10.7 per cent, with values ranging between divestments of almost 20 per cent and increases of up to 78 per cent. Leading time from the entry of the pioneer ranges from 0 (for market pioneers) to 88 quarters (for market followers). The average values of independent variables and control variables are similar in both stages.

Table 2.1. Descriptive statistics for the initial ownership model (N=90)

Variable	Mean	Std. Dev.	Min	Max
Initial ownership	63.98	32.64	10.3	100
Leading time	17.14	20.17	0	88
Market age	49.59	18.56	18	89
New technology introduction	0.09	0.29	0	1
Subsidiary size	48.69	76.99	0.08	323.8
Subsidiary performance	0.15	0.64	-3.43	0.81
Prior presence	0.03	0.18	0	1
International experience	14.06	9.64	1	43
Parent size	81.99	100.2	0.07	480.1
GDP per capita	21.69	25.65	0.55	111.9
GDP per capita growth	2.96	3.33	-5.99	16.23
Political stability	-0.05	1.17	-2.30	1.52
Demand growth	0.46	1.42	-0.13	13.57
Competition	6.19	3.02	3	18
Technological change	0.49	0.50	0	1
Market openness	0.37	1.19	-2.90	2.11
Geographic distance	0.39	0.38	0.02	1.70
Geographic distance^2	2.92	5.15	0.00	28.90
Linguistic distance	-0.78	1.51	-3.87	0.53
Religious distance	-0.31	0.97	-1.55	1.53
Institutional distance	10.10	9.21	0.30	36.70
Economic distance	22.82	20.45	0.12	95.90

Table 2.2. Descriptive statistics for the ownership variation model (N=2,231)

Variable	Mean	Std. Dev.	Min	Max
Ownership variation	10.73	18.09	-17.2	78.3
Leading time	14.13	16.81	0	88
Market age	66.71	18.98	19	118
New technology introduction	0.22	0.42	0	1
Subsidiary size	96.02	158.6	0.06	1,526
Subsidiary performance	0.13	3.92	-105	0.94
Prior presence	0.02	0.16	0	1
International experience	19.53	12.62	1	49
Parent size	169.6	162.0	0.18	655.7
Majority ownership	0.83	0.37	0	1
Post-acquisition time	24.09	14.69	2	64
Post-acquisition time^2	795.8	850.9	4	4,096
GDP per capita	22.10	23.89	0	109.04
GDP per capita growth	2.41	3.98	-29.89	24.67
Political stability	0.02	1.01	-2.68	1.53
Demand growth	0.16	0.25	-0.38	1.77
Competition	6.25	3.03	3	18
Technological change	0.84	0.37	0	1
Market openness	0.50	1.12	-2.91	2.23
Geographic distance	0.36	0.41	0.02	1.88
Geographic distance^2	2.96	6.68	0.00	35.48
Linguistic distance	-0.92	1.58	-3.87	0.53
Religious distance	-0.50	0.88	-1.55	1.53
Institutional distance	8.86	8.00	0	36.80
Economic distance	23.72	19.23	0.001	111.9

Correlations are shown in Tables 2.3 and 2.4. Table 2.3 shows the correlations for the initial ownership model, while Table 2.4 shows the correlations in the ownership variation model. The level of ownership initially acquired by an MNE and the ownership variation are negatively correlated with the leading time from the entry of the pioneer in the market. The correlation between independent variables remains moderate in most cases. Before estimating the regression models, we carried out a test for potential multicollinearity and found that the variance inflation factor in our models in the two stages was below 10 (the maximum VIF is 7.76 in the initial ownership model and 6.98 in the ownership variation model), being the rule of thumb that suggests the presence of multicollinearity (Neter, Wasserman, & Kutner, 1990). Multicollinearity does not therefore pose a problem.

Table 2.3. Correlations for the initial ownership model (N=90)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	*Initial ownership*	1.00																					
2	*Leading time*	-0.16	1.00																				
3	*Market age*	-0.07	0.62*	1.00																			
4	*New technology introduction*	-0.31*	0.02	0.11	1.00																		
5	*Subsidiary size*	-0.21*	-0.10	0.38*	-0.04	1.00																	
6	*Subsidiary performance*	0.17	-0.63*	-0.23*	0.01	0.20*	1.00																
7	*Prior presence*	-0.00	-0.05	0.13	-0.06	0.34*	0.11	1.00															
8	*International experience*	-0.07	-0.21*	0.13	0.10	0.33*	-0.01	0.10	1.00														
9	*Parent size*	0.02	-0.15	0.28*	0.22*	0.30*	0.12	0.05	0.59*	1.00													
10	*GDP per capita*	0.20*	0.09	0.06	0.25*	-0.15	-0.03	-0.05	-0.04	-0.02	1.00												
11	*GDP per capita growth*	0.05	-0.15	-0.04	0.09	-0.02	0.12	0.00	-0.04	-0.10	-0.42*	1.00											
12	*Political stability*	0.21*	-0.07	-0.16	0.24*	-0.20*	0.01	-0.08	-0.08	-0.01	0.65*	-0.27*	1.00										
13	*Demand growth*	-0.12	-0.10	-0.13	-0.09	-0.08	0.04	-0.04	0.05	-0.01	-0.18*	-0.02	-0.21*	1.00									
14	*Competition*	0.10	0.09	0.15	-0.15	0.15	-0.03	0.32*	-0.21*	-0.13	-0.28*	0.24*	-0.33*	-0.04	1.00								
15	*Technological change*	-0.10	0.36*	0.60*	0.32*	0.36*	-0.17	0.07	0.21*	0.37*	0.16	-0.15	0.05	-0.20*	0.08	1.00							
16	*Market openness*	0.13	0.00	-0.01	0.28*	-0.09	-0.01	-0.02	0.08	0.07	0.67*	-0.48*	0.75*	-0.16	-0.38*	0.10	1.00						
17	*Geographic distance*	-0.29*	-0.11	-0.06	0.33*	0.01	-0.05	-0.16	0.22*	0.29*	-0.12	-0.07	-0.01	0.09	-0.10	-0.05	0.06	1.00					
18	*Geographic distance²*	-0.22*	-0.10	-0.01	0.41*	-0.02	-0.04	-0.10	0.23*	0.41*	0.06	-0.15	0.14	0.02	-0.11	0.00	0.20*	0.93*	1.00				
19	*Linguistic distance*	-0.19*	-0.03	-0.01	-0.14	0.25*	-0.04	-0.01	0.04	-0.10	-0.10	-0.04	-0.07	-0.07	-0.00	0.12	-0.09	-0.21*	-0.30*	1.00			
20	*Religious distance*	-0.37*	-0.06	-0.02	-0.02	0.09	-0.06	0.04	0.05	0.13	-0.34*	0.15	-0.29*	0.03	0.01	0.04	-0.35*	0.16	-0.02	0.31*	1.00		
21	*Institutional distance*	-0.40*	0.16	0.18*	0.12	0.01	-0.25*	0.12	0.05	-0.12	-0.18*	0.26*	-0.21*	0.13	0.14	0.13	-0.16	0.08	-0.02	0.33*	0.43*	1.00	
22	*Economic distance*	0.01	0.17	0.29*	0.08	0.18*	0.04	-0.11	0.09	0.16	0.21*	-0.05	0.08	-0.02	-0.07	0.32*	0.04	-0.12	-0.13	0.21*	-0.01	0.11	1.00

*$p<0.1$

Table 2.4. Correlations for the ownership variation model (N=2231)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	*Ownership variation*	1.00																								
2	*Leading time*	-0.03*	1.00																							
3	*Market age*	0.04*	0.45*	1.00																						
4	*New technology introduction*	0.06*	-0.01	0.17*	1.00																					
5	*Subsidiary size*	0.18*	-0.02*	0.13*	0.01	1.00																				
6	*Subsidiary performance*	0.02	-0.11*	0.01	0.02	0.02*	1.00																			
7	*Prior presence*	-0.05*	0.00	0.08*	-0.06*	0.09*	0.01	1.00																		
8	*International experience*	0.03*	-0.12*	0.24*	0.11*	0.16*	0.04*	0.00	1.00																	
9	*Parent size*	0.06*	-0.11*	0.33*	0.25*	0.23*	0.03*	0.01	0.65*	1.00																
10	*Majority ownership*	0.18*	-0.01	0.10*	-0.02*	-0.12*	-0.03	0.02	0.13*	0.05*	1.00															
11	*Post-acquisition time*	0.27*	-0.11*	0.46*	0.24*	0.09*	0.05*	-0.11*	0.22*	0.35*	0.14*	1.00														
12	*Post-acquisition time²*	0.26*	-0.10*	0.48*	0.22*	0.05*	0.02*	-0.09*	0.21*	0.21*	0.13*	0.95*	1.00													
13	*GDP per capita*	-0.02	0.11*	0.06*	0.04*	0.01	0.00	0.03*	0.14*	0.05*	0.08*	0.05*	0.09*	1.00												
14	*GDP per capita growth*	0.02	-0.06*	-0.03*	-0.01	-0.03*	-0.01	-0.01	-0.07*	-0.06*	-0.09*	-0.10*	-0.05*	-0.11*	1.00											
15	*Political stability*	0.00	-0.01	0.03*	0.10*	-0.05*	0.02*	0.01	0.01*	-0.00	0.12*	0.08*	0.09*	0.63*	0.04*	1.00										
16	*Demand growth*	-0.09*	-0.09*	-0.15*	-0.16*	-0.05*	-0.01	-0.03*	-0.13*	-0.13*	-0.14*	-0.32*	-0.10*	-0.17*	0.09*	-0.15*	1.00									
17	*Competition*	-0.00	0.11*	-0.04*	-0.14*	0.03*	-0.04*	0.14*	-0.05*	0.03*	-0.02*	-0.06*	-0.05*	-0.12*	0.08*	-0.25*	0.04*	1.00								
18	*Technological change*	0.06*	0.12*	0.45*	0.30*	0.31*	-0.01	0.06*	0.31*	0.38*	0.10*	0.42*	0.29*	0.24*	-0.12*	0.16*	-0.31*	0.12*	1.00							
19	*Market openness*	0.08*	0.05*	0.12*	0.17*	-0.05*	0.02*	-0.04*	0.16*	0.07*	0.15*	0.17*	0.16*	0.62*	-0.10*	0.60*	-0.17*	-0.18*	0.26*	1.00						
20	*Geographic distance*	-0.13*	-0.07*	-0.10*	0.04*	0.03*	-0.00	-0.09*	0.14*	0.18*	-0.06*	-0.08*	-0.10*	-0.15*	-0.02*	-0.06*	0.01*	-0.12*	-0.07*	-0.06*	1.00					
21	*Geographic distance²*	-0.11*	-0.04*	-0.07*	0.03*	0.02*	-0.00	-0.06*	0.13*	0.18*	-0.04*	-0.02*	-0.04*	0.01	-0.02*	0.07*	-0.01	-0.11*	-0.00	0.06*	0.93*	1.00				
22	*Linguistic distance*	0.12*	-0.07*	-0.09*	-0.07*	0.10*	0.00	0.01	0.07*	-0.06*	-0.14*	-0.09*	-0.09*	-0.09*	0.08*	-0.08*	-0.01	-0.06*	0.00	-0.08*	-0.03*	-0.13*	1.00			
23	*Religious distance*	-0.11*	-0.06*	-0.09*	-0.12*	0.12*	0.02*	0.06*	-0.01	0.14*	-0.24*	-0.19*	-0.15*	-0.36*	0.13*	-0.33*	0.08*	0.06*	-0.10*	-0.41*	0.28*	0.12*	0.38*	1.00		
24	*Institutional distance*	0.03*	-0.01	-0.05*	-0.05*	0.07*	0.00	0.01	0.11*	0.25*	-0.23*	-0.03*	-0.08*	-0.18*	0.01*	-0.25*	0.09*	0.03*	-0.08*	-0.29*	0.29*	0.21*	0.09*	0.24*	1.00	
25	*Economic distance*	0.03*	0.02	0.09*	0.07*	0.07*	0.03*	-0.07*	0.27*	0.27*	-0.08*	0.04*	-0.01*	0.01	0.00	-0.09*	-0.07*	-0.00	0.17*	-0.02*	0.11*	0.07*	0.10*	0.01	0.37*	1.00

**p<0.1*

2.5. RESULTS

2.5.1. Analysis of the effect of the leading time on the initial ownership acquired

Table 2.5 provides the results of the Tobit regression for the first stage analysis (Models 1 to 5). Model 1 only considers the influence of the control variables in the initial ownership acquired by the MNE, while Model 2 introduces the effect of leading time (Hypothesis 1). Models 3 includes the interaction effect of market age on the main relationship (Hypothesis 3a), while Model 4 considers the interaction effect of new technology introduction (Hypothesis 4a). Finally, Model 5 is the full model that includes the two interaction terms. The likelihood ratio test shows that Model 4 is the model that best fits our data. That is why we employ it in interpreting the results of the main independent variables.

The effect of control variables on initial ownership remains quite stable in Models 1 to 5. As can be observed, the level of ownership initially acquired in CBAs is higher in those countries with higher levels of GDP per capita, political stability, GDP per capita growth, demand growth and competition. The ownership initially acquired in the subsidiary is also higher when the acquirer has a greater size. However, the initial percentage acquired tends to be lower when greater institutional and economic distance exist, and when the target firm is smaller. However, other control variables, such as the international experience of the acquirer and the performance of the target firm, remain insignificant across the five models.

Table 2.5. Results for determinants of initial ownership

	Model 1	Model 2	Model 3	Model 4	Model 5
Leading time		-1.569***	-1.865**	**-2.564***	-3.045***
		(0.330)	(0.715)	(0.582)	(0.917)
Leading time x Market age			0.006		0.009
			(0.012)		(0.013)
Leading time x New technology introduction				**3.084****	3.127**
				(1.221)	(1.209)
Market age	0.738**	1.853***	1.736***	2.617***	2.413***
	(0.344)	(0.428)	(0.476)	(0.682)	(0.731)
New technology introduction	-100.9***	-83.53***	-79.73***	-131.8***	-126.4***
	(18.54)	(16.04)	(17.77)	(32.03)	(32.31)
Subsidiary size	-0.242***	-0.350***	-0.342***	-0.399***	-0.393***
	(0.089)	(0.082)	(0.083)	(0.098)	(0.098)
Subsidiary performance	12.44	-10.98	-9.958	-13.99	-13.18
	(6.982)	(7.820)	(8.100)	(7.793)	(7.900)
Prior presence	-26.76	-11.74	-10.59	-34.98*	-32.01
	(21.02)	(18.06)	(18.13)	(20.01)	(20.27)
International experience	1.460	-0.059	-0.037	0.667	0.659
	(1.263)	(1.073)	(1.071)	(1.109)	(1.100)
Parent size	0.438***	0.371***	0.392***	0.216*	0.254*
	(0.138)	(0.118)	(0.126)	(0.122)	(0.133)
GDP per capita	0.736**	0.660**	0.681**	0.154*	0.192
	(0.312)	(0.278)	(0.280)	(0.300)	(0.302)
GDP per capita growth	10.533***	8.173***	8.012***	11.615***	11.293***
	(2.661)	(2.336)	(2.344)	(3.159)	(3.128)
Political stability	11.30*	12.15**	11.70**	19.56**	18.14**
	(6.298)	(5.377)	(5.389)	(7.512)	(7.717)
Demand growth	6.123**	4.144*	4.178*	8.846**	8.757**
	(2.826)	(2.401)	(2.389)	(3.505)	(3.455)
Competition	5.666***	3.847**	3.799**	3.502**	3.381*
	(1.967)	(1.641)	(1.626)	(1.719)	(1.713)
Technological change	21.62	24.63**	21.91	55.94***	51.94**
	(13.63)	(11.90)	(13.19)	(19.50)	(19.96)
Market openness	-6.073	-2.792	-3.072	-1.750	-2.320
	(6.385)	(5.433)	(5.456)	(6.681)	(6.801)
Geographic distance	13.46	61.73	57.58	-118.3	-122.3
	(49.41)	(44.47)	(45.24)	(77.18)	(76.59)
Geographic distance²	-4.953	-7.640	-7.514	6.389	6.432
	(3.819)	(3.409)	(3.412)	(5.765)	(5.701)
Linguistic distance	4.066	5.778	5.588	16.55**	16.34**
	(4.400)	(3.723)	(3.713)	(7.635)	(7.527)
Religious distance	-4.332	-9.806	-9.277	-3.331	-2.969
	(6.972)	(6.065)	(6.154)	(6.583)	(6.585)
Institutional distance	-2.659***	-2.847***	-2.814***	-4.223***	-4.223***
	(0.669)	(0.585)	(0.588)	(1.112)	(1.095)
Economic distance	-1.073**	-0.678*	-0.653	-1.454**	-1.405**
	(0.471)	(0.410)	(0.411)	(0.661)	(0.652)
Dummy group	Yes***	Yes***	Yes***	Yes***	Yes***
_cons	-8.400	-10.407	-1.238	57.015	73.179*
	(28.083)	(24.611)	(30.983)	(34.030)	(40.957)
sigma					
_cons	20.676***	17.752***	17.699***	16.558***	16.485***
	(2.002)	(1.700)	(1.697)	(1.581)	(1.574)
N	90	90	90	90	90
LL ratio test versus Model 1		22.19***	22.41***	**33.16*****	33.65***
LL ratio test versus Model 2			0.22	**10.97*****	11.46***
LL ratio test versus Model 3					11.24***
LL ratio test versus Model 4					0.49

Standard errors in parentheses *p<0.1, **p<0.05, ***p<0.01

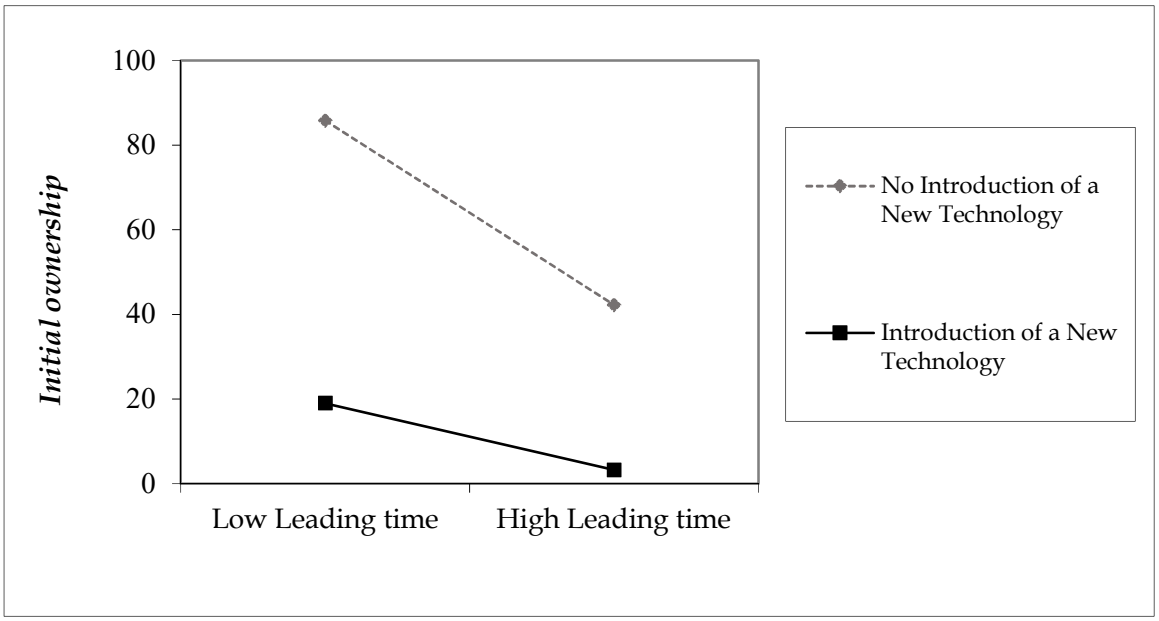
Hypothesis 1 states that leading time negatively influences the percentage in the subsidiary that MNEs initially acquire. Our results in Model 4 show that the higher the leading time between the entry of the pioneer and the entry of the subsidiary, the lower the percentage initially acquired (β=-2.564; $p<0.01$). This effect remains negative and significant in all models. As a consequence, Hypothesis 1, showing that MNEs tend initially to buy higher levels of equity in subsidiaries that have entered into the market earlier, is supported.

With regard to the moderating effect of market age on the relationship between leading time and the level of ownership initially acquired, our results do not find support for Hypothesis 3a. As we can see in the likelihood ratio test, the introduction of the moderating effect in both Model 3 and Model 5 does not contribute to explain the initial ownership decision. Conversely, results from Model 4 support Hypothesis 4a, which states that the negative effect of leading time on the initial ownership acquired is positively moderated by the introduction of a new technology by the subsidiary. Our results show that the moderating effect between leading time and new technology introduction is positive and significant (β=3.084; $p<0.05$), confirming that the erosion of early-mover advantages makes late entrants more attractive under these circumstances at the time of the initial acquisition.

A graphical illustration of this moderating effect is provided in Figure 2.1. We can observe a negative relationship between leading time and the ownership initially acquired (as stated by Hypothesis 1). However, the slope of this negative relationship is less pronounced for those subsidiaries that have been first to introduce a new

technology into the market. [14]As subsidiaries introduce technological changes, first-mover advantages are eroded and the leading time loses importance as the determinant of the ownership decision.

Figure 2.1. Initial ownership:
Interaction between leading time and new technology introduction



2.5.2. Analysis of the effect of the leading time on the ownership variation

Table 2.6 provides the results of the random-effects Tobit estimations for panel data for the ownership variation during the post-entry time (Models 6 to 10). Model 6 only includes control variables; Model 7 incorporates the effect of leading time (Hypothesis 2); Model 8 considers the interaction between leading time and market age (Hypothesis 3b); and Model 9 considers the interaction between leading time and new technology introduction (Hypothesis 4b).

[14] Although Hypothesis 4a is supported, our result may (at least partially) also be due to boundary effects. As shown in Figure 1, when leading time is low, the initial ownership level for companies that introduce a new technology is much lower than for companies that do not do it, which may be a reason to observe a less pronounced downward slope for the former. We acknowledge a reviewer for noticing us this point.

Model 10 is the full model, including the two interaction terms. The likelihood ratio test shows that Model 10 is the model that best fits our data. That is why we employ it in interpreting the results of the main independent variables.

Once MNEs have acquired an initial percentage in a subsidiary, they can change their levels of participation. Models 6 to 10 in Table 2.6 show that the effect of control variables on ownership variation is quite stable. The effect of the MNE's international experience on the ownership variation is always positive and significant. The time elapsed after the acquisition has a positive and significant direct effect, and a negative and significant effect in the quadratic term. Thus, acquirers tend to acquire higher levels of ownership after the initial acquisition as they gain direct experience from the target firm, although they are less likely to increase the level of their ownership soon after the initial acquisition or when they have been established for a very long time. Similarly, the institutional distance has a negative and significant effect initially, but influences the ownership variation in a positive and significant way. Thus, once the acquirer has gained experience in the host country whose institutional conditions greatly differ from those of its home country, it is more likely to increase its ownership of the subsidiary. Moreover, acquirers tend to acquire higher levels of ownership in the post-acquisition time when they initially entered with majority levels of ownership, as well as when the market is growing in terms of GDP per capita and demand.

Table 2.6. Results for determinants of ownership variation

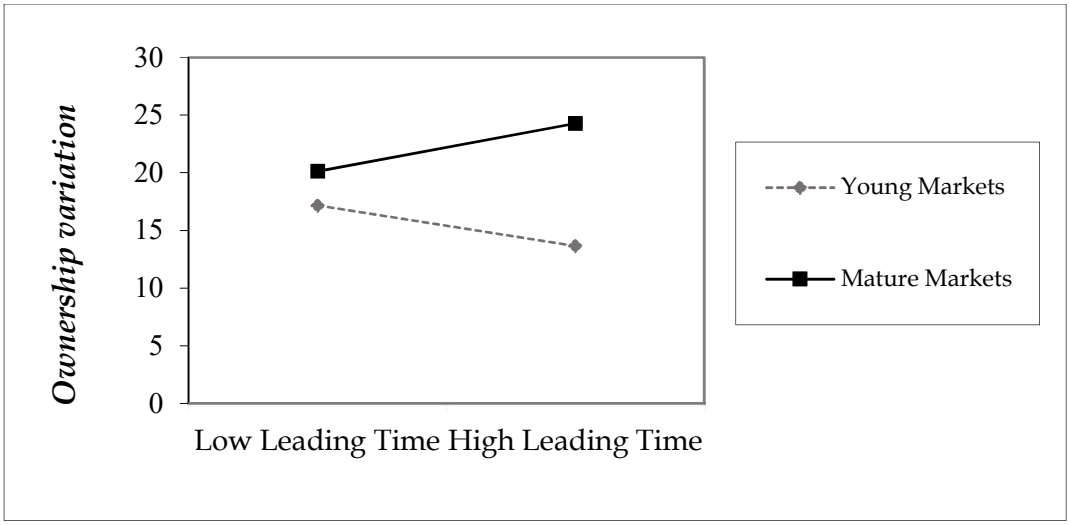
	Model 6	Model 7	Model 8	Model 9	Model 10
Leading time		0.184	-0.315**	0.135	**-0.291****
		(0.119)	(0.138)	(0.118)	(0.137)
Leading time x Market age			0.007***		**0.006*****
			(0.001)		(0.001)
Leading time x New technology introduction				0.331***	**0.242*****
				(0.063)	(0.064)
Market age	0.115*	0.078	0.100	0.074	0.094
	(0.067)	(0.071)	(0.070)	(0.070)	(0.070)
New technology introduction	-1.509*	-1.441	-1.425	1.603	0.801
	(0.881)	(0.882)	(0.872)	(1.052)	(1.051)
Subsidiary size	0.002	0.002	-0.004**	0.002	-0.004*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Subsidiary performance	0.117	0.159	0.150	0.150	0.145
	(0.123)	(0.124)	(0.125)	(0.123)	(0.124)
Prior presence	-8.839	-8.047	-5.482	-9.328	-6.694
	(9.155)	(8.968)	(9.087)	(8.888)	(8.978)
International experience	0.148***	0.148***	0.152***	0.187***	0.180***
	(0.050)	(0.050)	(0.050)	(0.051)	(0.050)
Parent size	-0.011***	-0.010***	-0.010***	-0.010***	-0.009***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Majority ownership	20.28***	20.26***	20.21***	20.44***	20.33***
	(1.152)	(1.151)	(1.140)	(1.142)	(1.135)
Post-acquisition time	0.512***	0.570***	0.499***	0.563***	0.503***
	(0.103)	(0.109)	(0.109)	(0.109)	(0.109)
Post-acquisition time²	-0.007***	-0.007***	-0.005***	-0.006***	-0.005***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
GDP per capita	-0.143**	-0.142**	-0.146**	-0.151**	-0.152**
	(0.071)	(0.070)	(0.070)	(0.069)	(0.069)
GDP per capita growth	0.116***	0.115***	0.099**	0.098**	0.089**
	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)
Political stability	0.215	0.207	-0.132	0.118	-0.155
	(0.522)	(0.521)	(0.517)	(0.518)	(0.515)
Demand growth	2.953***	2.931***	1.949**	2.679***	1.880**
	(0.933)	(0.933)	(0.931)	(0.929)	(0.929)
Competition	-0.208	-0.036	-0.123	0.072	-0.033
	(0.569)	(0.567)	(0.574)	(0.562)	(0.568)
Technological change	1.353*	1.327*	1.467**	1.030	1.232*
	(0.698)	(0.698)	(0.690)	(0.696)	(0.691)
Market openness	0.123	0.189	0.415	0.222	0.416
	(0.571)	(0.572)	(0.567)	(0.568)	(0.565)
Geographic distance	4.361	5.056	9.085	-1.055	4.146
	(15.79)	(15.44)	(15.64)	(15.35)	(15.50)
Geographic distance²	-0.862	-0.958	-1.176	-0.612	-0.898
	(0.957)	(0.938)	(0.950)	(0.931)	(0.941)
Linguistic distance	0.983	0.775	0.587	1.012	0.781
	(1.495)	(1.468)	(1.487)	(1.455)	(1.469)
Religious distance	-2.106	-1.626	-1.264	-0.780	-0.683
	(2.870)	(2.822)	(2.859)	(2.800)	(2.827)
Institutional distance	0.361***	0.366***	0.247***	0.343***	0.245***
	(0.065)	(0.065)	(0.066)	(0.064)	(0.066)
Economic distance	0.009	0.009	0.015	0.011	0.016
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)
Dummy year	Yes***	Yes***	Yes***	Yes***	Yes***
Dummy group	Yes***	Yes***	Yes***	Yes***	Yes***
_cons	-24.678**	-30.483***	-23.209**	-28.655***	-22.753**
	(9.677)	(10.22)	(10.33)	(10.14)	(10.23)
sigma_u (_cons)	12.696***	12.398***	12.572***	12.281***	12.407***
	(0.989)	(0.981)	(0.995)	(0.970)	(0.981)
sigma_e (_cons)	5.396***	5.398***	5.330***	5.366***	5.316***
	(0.083)	(0.083)	(0.082)	(0.082)	(0.081)
N	2231	2231	2231	2231	2231
LL ratio test versus Model 6		2.33	54.23***	29.54***	**68.30*****
LL ratio test versus Model 7			51.90***	27.21***	**65.97*****
LL ratio test versus Model 8					**14.07*****
LL ratio test versus Model 9					**38.76*****

*Standard errors in parentheses *p<0.1, **p<0.05, ***p<0.01*

Hypothesis 2 posits that leading time is negatively related to variation in the percentage of ownership after the initial acquisition. As observed in Model 10, leading time presents the expected negative sign (β=-0.291; $p<0.05$). This means that, even after the initial acquisition, the leading time between the entry of the pioneer and the entry of the subsidiary influences the variation in MNEs' participation in the target firm. However, this negative effect is only significant in those models that include the interaction with market age, partially supporting Hypothesis 2.

Results from Model 10 also support Hypothesis 3b, which states that the negative effect of leading time on ownership variation is positively moderated by market age as a consequence of the erosion of early-mover advantages. Our results show that the interaction between leading time and market age is positive and significant (β=0.006; $p<0.01$), confirming that the erosion of early-mover advantages makes late entrants more attractive.

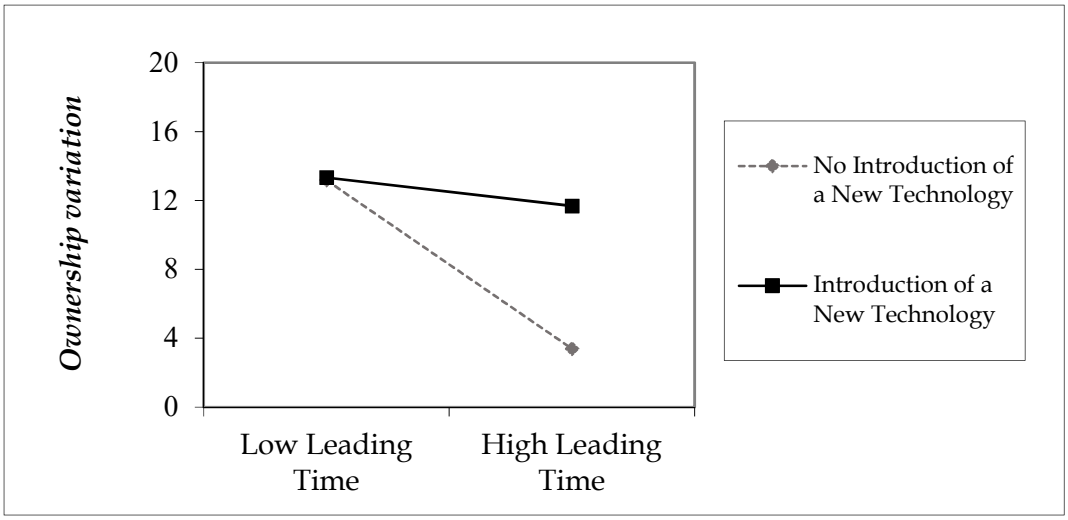
Figure 2.2. Post-entry time:
Interaction between leading time and market age



A graphical illustration of this moderating effect is provided in Figure 2.2, where we can observe the negative relationship between the leading time between the entry of the pioneer and the subsidiary and ownership variation (Hypothesis 2). As shown in the figure, the negative relationship between leading time and ownership variation in younger markets becomes positive in more mature markets (Hypothesis 3b). This confirms that, in more incipient markets, the leading time acts a key signal of potential performance, which reduces uncertainty about potential performance and makes parent firms more willing to increase their ownership level in the subsidiary. However, as markets mature, first-mover advantages are eroded and late-mover advantages can be even more important in the ownership variation decision.

Hypothesis 4b states that the introduction of a new technology by a subsidiary after the initial acquisition positively moderates the relationship between leading time and ownership variation. Results from Model 10 support Hypothesis 4b, showing a positive coefficient for the interaction between leading time and the introduction of a new technology in the post-acquisition time ($\beta=0.242$; $p<0.01$). We illustrate this moderation effect in Figure 2.3, which shows the negative relationship between leading time and the variation of ownership after the initial acquisition (Hypothesis 2). We observe that this negative relationship is weaker for subsidiaries that have been the first to introduce a new technology. Thus, as subsidiaries introduce new technologies that erode existing first-mover advantages, the leading time loses importance as the determinant of the ownership decision.

Figure 2.3. Post-entry time:
Interaction between leading time and market age



2.6. DISCUSSION AND CONCLUSIONS

This research has analysed the effect of the entry timing of the target on the level of ownership acquired by an MNE when the latter carries out a CBA. The study is performed in two stages. We analysed the ownership acquired in the initial entry first, and then the variation in the level of ownership during the post-entry period. Drawing on information economics and transaction costs economics, we argue that CBAs entail a high degree of uncertainty that the acquiring firm should manage both in the initial moment of acquisition and once the acquisition has happened. We claim that the entry timing of the target firm is an important predictor of this uncertainty, and that it helps to reduce information asymmetries between the acquirer and the target. Therefore, taking this information into account, the acquirer is in a better position to evaluate the assets and capabilities of the desired company and to make better investment decisions. Our findings show that, in contexts where first-mover advantages exist, MNEs acquire lower levels of ownership in targets that have entered into the market later. The greater the leading time between the entry of the pioneer

and the entry of the target, the higher the uncertainty of the MNE, with a subsequent reduction in the level of ownership initially acquired.

Additionally, our study incorporates a dynamic perspective into the analysis. After the initial acquisition, MNE' perception of the potential of the target to generate value may change as a consequence of learning. As a result of information that is obtained directly from the firm, the acquirer is able to verify the existence of first-mover advantages and the potential of the target to generate future performance. Thus, the leading time will be a useful signal for acquirers to vary their levels of ownership. In fact, our results show that MNEs tend to increase their levels of ownership after their initial entry into subsidiaries that entered into the market earlier. As in the decision about initial ownership, a higher leading time is perceived as a negative signal that makes MNEs reluctant to increase their equity in subsidiaries.

Nevertheless, this negative relationship between leading time and ownership is not independent of the circumstances, but is contingent on two important elements that can erode first-mover advantages: market age and the introduction of a new technology by the target company. Our logic is that the passage of time and the innovative character of the target company weaken the isolating mechanisms that protect first-mover advantages, reducing the importance of leading time as a signal to counteract uncertainty. Our findings corroborate that the introduction of a new technology that erodes the existing first-mover advantages reduces the negative effect of leading time on the initial ownership acquired, as well as on the ownership variation during the post-entry time. The innovative

character of the subsidiary sends a positive signal about its potential to generate value in the future that makes entry timing less relevant. However, an unexpected result that should be mentioned at this point is the negative (direct) effect that the introduction of a new technology has on the initial ownership acquired. Although our analysis confirms that the innovative nature of the target company erodes first-mover advantages, one would expect that the direct effect of the introduction of a new technology positively impacts the initial ownership acquired. New technologies may lead to obtaining higher levels of growth, with a subsequent increase in expected performance. So, the negative sign of this variable seems to be surprising. One possible explanation is that innovation and growth also entail additional risks. Innovative firms face challenges such as size, internal turmoil and higher resource needs (Hambrick & Crozier, 1985) that should be balanced with future expected performance. Regardless, this relationship does not seem to be clear and should receive further attention in future research.

Furthermore, our findings show that market age also lowers the negative effect of leading time on the ownership variation, because late entrants are perceived as a less risky option when the market is more mature. However, market age does not have a significant effect as a moderator in the relationship between leading time and the level of initial ownership. A possible explanation can come from the fact that, when MNEs develop CBAs, they try to determine the scope of first-mover advantages based on the available information about the market and the target firm. Contrary to the case of the innovative character of the subsidiary, the effect of time on first-mover advantages erosion could be less perceptible to foreign investors since

they do not possess a broad perspective of the evolution of the scope of these advantages over time in the target market. After the initial acquisition, the MNE obtains direct and regular information on the market that helps the acquirer to verify not only the existence of first-mover advantages, but also their erosion as the market gets older. Consequently, market age may have a significant moderating effect on the relationship between leading time and ownership variation, but not on the relationship between leading time and the initial ownership.

The main contribution of this research has been the integration of entry timing literature into analysis of the level of ownership in CBAs by examining how the entry timing influences the ownership strategy in CBAs. In this way, this study answers Zachary et al.'s (2015) call for the development of a more unifying framework of entry strategy that integrates entry timing with other important dimensions. Moreover, we focus on a target-level variable—namely, its leading time. Previous studies have tended to focus on country-level and MNE-level determinants of ownership. In a context where first-mover advantages exist, the leading time between the entry of the pioneer and the entry of the target is confirmed to be a key determinant of the ownership decision in CBAs.

Secondly, we incorporate a dynamic perspective into the analysis by considering that ownership can vary over time. This paper explores how the leading time influences not only the initial ownership acquired in CBAs, but also the ownership variation during the post-entry period. Finally, we analyse the effect of the erosion of first-mover advantages on prior relationships. In doing so, we consider how market age and the introduction of new technologies by

the target erode first-mover advantages, making leading time a less important determinant of the ownership held by an MNE.

Our study has some implications from a managerial point of view. Firstly, MNEs should take into account the importance of first-mover advantages enjoyed by the target company before deciding on the acquisition of a foreign subsidiary. When first-mover advantages exist, the target firm is more attractive if it has entered into the market earlier; but this attractiveness is influenced by other variables, such as the stage of development of the market and the innovative character of the target firm. In mature markets, first-mover advantages will be reduced, and investing in a late entrant will not be as risky. The subsidiary's attractiveness will also be reduced if a late entrant shows an innovative profile. When the target firm introduces a key innovation—which may even replace the technology that originated the first-mover advantages—the entry timing of the subsidiary becomes less important in the ownership decision. Secondly, entering with lower levels of ownership allow MNEs to gain strategic flexibility in order to revise their risk position in the future and adjust the level of ownership held in the subsidiary. For this reason, it is very important that MNEs verify the existence of first-mover advantages after the acquisition of a new subsidiary to adapt the resource commitment to the expected profitability that comes from the existence of these advantages.

Our study is not without limitations. Firstly, the empirical analysis focuses on a single industry. With this decision, we avoid the influence of industry-specific variables that previous studies have shown to influence ownership decisions, such as industry technological level or industry R&D level (Chari & Chang, 2009; Dow

et al., 2016). Future studies should develop this analysis in other industries where first-mover advantages are important in order to corroborate and go deeper into the analysis of the effect of entry timing on equity ownership. Secondly, we focus on a context where first-mover advantages have been demonstrated to outweigh first-mover disadvantages. It is possible that the same analysis in a context where there are late-mover advantages may report different results. Future research should explore this possibility. Thirdly, although we incorporate the yearly performance of the subsidiary as a control variable in the analysis, we should be conscious that when selecting the target firm, MNEs will use additional information such as long-term profitability or brand strength, information that is not available for our research purposes. Finally, the study focuses on two factors—market age and technological discontinuities—that weaken isolating mechanisms and thus erode first-mover advantages. Although their importance has been highlighted in prior studies, there are other factors that can make isolating mechanisms less effective, such as changes in consumer preferences and regulation. Future research should pay attention to these factors that may also influence the equity ownership decision.

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APPENDIX

HOST AND HOME COUNTRIES INCLUDED

Host Countries (50 countries)				
Australia	*Egypt*	*Kazakhstan*	*Nigeria*	*Switzerland*
Bangladesh	*Estonia*	*Kenya*	*Norway*	*Turkey*
Belgium	*Greece*	*Korea, South*	*Poland*	*Uganda*
Bulgaria	*Hong Kong*	*Laos*	*Saudi Arabia*	*Ukraine*
Chile	*Indonesia*	*Latvia*	*Serbia*	*United Kingdom*
Colombia	*Iran*	*Luxembourg*	*Singapore*	*Uruguay*
Congo, Democratic Republic	*Ireland*	*Malta*	*Slovenia*	*Uzbekistan*
Croatia	*Italy*	*Morocco*	*Spain*	*Venezuela*
Côte d'Ivoire	*Japan*	*Nepal*	*Sri Lanka*	*Yemen*
Denmark	*Jordan*	*New Zealand*	*Sweden*	*Zambia*

Home Countries (24 countries)		
Australia	*India*	*Saudi Arabia*
Austria	*Italy*	*Singapore*
Belgium	*Japan*	*South Africa*
Denmark	*Kuwait*	*Spain*
Egypt	*Malaysia*	*Sweden*
France	*Norway*	*USA*
Germany	*Qatar*	*United Arab Emirates*
Hong Kong	*Russian Federation*	*United Kingdom*

CHAPTER 3

OWNERSHIP IN CROSS-BORDER ACQUISITIONS BY EMERGING MULTINATIONALS

3.1. INTRODUCTION

Multinational enterprises (MNEs) have substantially increased their contribution to economic activity in the last couple of decades and currently they generate almost one-third of the world's total production (OECD, 2018). In their internationalization process, MNEs should make two key strategic decisions, namely entry mode and ownership (Xu and Shenkar, 2002). Regarding the former, they can internationalize through greenfield investments—establishing the new company from scratch—or by performing cross-border acquisitions (CBAs)—acquiring an existing company in the new country. The two modes of entry have some advantages and disadvantages (Brouthers and Brouthers, 2000; Slangen & Hennart, 2007). Nevertheless, in the last few years, CBAs show a stronger growth than greenfield investments do (UNCTAD, 2018), encouraging researchers to analyze deeper the determinants of CBAs.

When MNEs enter a country through a CBA, the second key decision to adopt is the percentage of ownership to acquire in the target company (Chari & Chang, 2009). The evidence shows that CBAs of MNEs significantly vary in respect of the ownership acquired (Chari & Chang, 2009; Gerpott & Jakopin, 2008). According to prior literature, the choice of ownership acquired is determined by factors such as resource commitment, the expected control by the MNE on the target company, or the risks and performance of the acquisition (Anderson & Gatignon, 1986; Delios & Beamish, 1999). Literature from the transaction costs theory traditionally suggests that environmental uncertainty increases the difficulty of the foreign buyer to seek, negotiate and monitor the market transaction partners (Williamson, 1981). In contexts with higher environmental

uncertainty, MNEs prefer to acquire lower levels of ownership in order to gain flexibility to answer to environmental changes (Yiu & Makino, 2002). Empirical studies have opened a debate about how the ownership strategy of MNEs varies depending on whether they expand to advanced or to emerging countries, which are characterized by different levels of uncertainty (Liou, Chen-Ho Chao, & Yang, 2016). Emerging countries are characterized by underdeveloped financial intermediaries and weak securities regulation, which increase the perceived uncertainty of doing business in these countries (Khanna & Palepu, 1997). As a result, MNEs usually choose a greater ownership percentage when entering advanced countries, where the level of uncertainty tends to be lower than in emerging countries (Delios & Beamish, 1999; Yiu & Makino, 2002).

Prior studies have primarily focused on the institutional conditions of the host countries as determinants of uncertainty. Nevertheless, the institutional conditions in the home country are also relevant to explain the ownership strategy in CBAs (De Beule, Elia, & Piscitello, 2014; Liou, Lee, & Miller, 2017). Recent research suggests that, when expanding abroad, the strategies and performance of MNEs that come from emerging countries—emerging MNEs, EMNEs— are different from those that come from advanced ones—advanced MNEs, AMNEs— (Cuervo-Cazurra, 2012; De Beule et al., 2014; Guillén & García-Canal, 2009). EMNEs face weak institutions and economic underdevelopment in their home countries (Cuervo-Cazurra & Genc, 2008), so they are expected to manage uncertainty better than AMNEs do. As a consequence, the uncertainty that MNEs perceive in the host country will depend on the level of development

of their home countries. Thus, host country characteristics are relevant in explaining the ownership strategies of MNEs, but the inclusion of home country characteristics is also necessary to fully comprehend these strategies. In spite of this, to our knowledge, prior studies have underexplored the interaction of host and home countries' characteristics in the ownership level decision.

Besides the home and the host countries' characteristics, the ownership strategy followed by MNEs can be conditioned by the characteristics of the industry where CBAs take place as well. Previous studies have analyzed the internationalization strategies in different contexts, such as R&D intensive industries (Chari & Chang, 2009; Prashantham & Birkinshaw, 2015; Qian, Li, & Qian, 2018), the hotel industry (Romero-Martínez et al., 2019) or the tire industry (Rose & Ito, 2009). Our research focuses on one regulated industry, the mobile telecommunications industry, which has special features that make it an interesting context where analyzing the ownership strategies followed by MNEs. In particular, regulated industries are subject to a greater political risk that may require firms a strong commitment of resources (García-Canal & Guillén, 2008). This might imply that the interaction effect of the home and the host countries' characteristics is highly relevant when determining the ownership strategies of MNEs in regulated industries. We pay attention to this and analyze how host and home countries' characteristics determine the ownership percentage acquired by telecom MNEs.

The aim of this chapter is twofold. First, we pay attention to host countries' characteristics and analyze the ownership percentage acquired by MNEs when designing a CBA in emerging or in advanced countries. Second, we incorporate the characteristics of the home

country and analyze the extent to which the ownership strategy in emerging countries differs between EMNEs and AMNEs. Our findings confirm that both home and host countries' characteristics are relevant in understanding the ownership strategies of MNEs. We show that telecom MNEs tend to acquire lower levels of ownership in emerging countries. Nevertheless, the origin of the MNE significantly moderates this relationship. EMNEs acquire higher levels of ownership in emerging countries than AMNEs do.

The contribution of this study is twofold. Firstly, we provide empirical evidence on the recent debate on whether the internationalization strategies followed by EMNEs are similar to the traditional patterns of the AMNEs (Ramamurti, 2012, Guillen & Garcia-Canal, 2009). We shed light on this and analyze to what extent EMNEs differ from AMNEs in their ownership strategies in emerging countries. In doing so, we argue that the integration of home and host countries' characteristics is necessary to comprehend fully the ownership strategies of MNEs in CBA. Secondly, our research centers on the global mobile telecommunications industry and includes a wide number of telecom MNEs and countries. This allows us to expand prior studies in two ways. First, by considering how the effect of the level of development of the host and the home countries determines MNEs' ownership strategies in a regulated industry. Second, by extending the analysis to an international and cross-cultural setting. Previous studies have usually been limited to a few firms or countries (Jakopin, 2008). Our study simultaneously includes many firms and countries. In particular, we include 53 mobile groups that come from 35 home countries and 82 host countries.

The remainder of the chapter proceeds as follows. First, we present the theoretical framework and the hypotheses of this study. Second, we develop an empirical analysis to test these hypotheses. In particular, this section begins with a detailed description of the ownership strategies that are made by telecom MNEs in CBA. In doing so, we pay attention to the developed or emerging nature of the host countries where CBA are made and, afterwards, we center on the developed or emerging nature of telecom MNEs. This allows us to obtain some interesting findings about the ownership strategies of telecom MNEs. Nevertheless, we go one step further and also perform a regression analysis to test our hypotheses. Thus, we present the sample, variables and the methodology that is used in this second analysis. Finally, we comment the results of this research and offer a discussion on the main conclusions and future research directions that are derived from our study.

3.2. THEORETICAL FRAMEWORK AND HYPOTHESES

3.2.1. The ownership level in CBAs: emerging vs. advanced host countries

The percentage of ownership acquired by an MNE is a key decision when performing a CBA, since it determines its control and resource commitment in the subsidiary (Chari & Chang, 2009; Ellis et al., 2018). Selection of the appropriate level of ownership may determine the success and survival of acquiring firms (Contractor et al., 2014; Delios & Beamish, 2001). A mistake in the ownership level may result in high integration costs that may destroy the CBA's performance (Lahiri, Elango, & Kundu, 2014). As a consequence,

MNEs should carefully evaluate the ownership level to acquire when developing a CBA.

This decision is even more difficult when the CBA takes place in an emerging country characterized by institutional voids that increase the perceived level of uncertainty (Lebedev, Peng, Xie, & Stevens, 2015). Prior research has coined the term 'institutional voids' to refer to the absence of those market-supporting institutions that are usually requested by foreign investors to develop investments in a new country (Khanna & Palepu, 1997). Emerging economies are characterized by underdeveloped capital and labor markets, where a lack of financial and other specialized intermediaries makes it more difficult to accomplish key activities for developing activities abroad, such as information searching or negotiating with partners, customers, and suppliers (Meyer, Estrin, Bhaumik, & Peng, 2009). Moreover, these markets suffer from a weak legal infrastructure, insufficient protection of property rights, and weak judiciary systems to enforce contracts (Contractor et al., 2014). It has also been observed that corruption tends to be higher in emerging markets, so the opportunistic behavior of market agents is more likely to occur (Judge, McNatt, & Xu, 2011).

Previous studies have shown that confronting higher levels of uncertainty makes MNEs acquire lower levels of ownership in order to obtain greater levels of flexibility (Delios & Beamish, 1999). Less resource commitment will allow them to leave the investment more easily if their expectations are unsatisfied. Moreover, emerging countries lack specialized intermediaries that facilitate the development of economic activities. Thus, informal business networks become crucial in these countries to find customers,

suppliers, and partners that help firms to develop their activities there. MNEs could encounter some problems entering informal business networks: these problems are labelled the 'liability of outsidership' (Johanson & Vahlne, 2009). The liability of outsidership may make MNEs that expand to emerging countries acquire lower levels of ownership, local investors retaining a higher percentage of equity to facilitate the MNE's introduction into the informal business network. The greater the uncertainty in the host market, the greater the likelihood of taking minority shares instead of acquiring majority percentages (Gerpott & Jakopin, 2008).

In contrast, when MNEs perform CBAs in advanced countries, the institutional void tends to weaken. Advanced countries usually have strong financial systems that facilitate economic exchanges, and strong legal and judiciary regimes that enforce contracts and protect property rights. Additionally, advanced countries usually have formal systems that enable foreign investors to develop their economic activities with lower levels of uncertainty and information asymmetries (Meyer et al., 2009). As formal procedures are explicit and market intermediaries work properly, it is easier for MNEs to obtain information and to negotiate contracts and enforce them. In other words, it is easier to develop activities in advanced than in emerging countries. Thus, the level of uncertainty is lower in advanced countries, which allows MNEs to make a better assessment of the potential value and costs derived from the CBA, encouraging them to acquire a higher level of ownership. This reasoning leads us to posit our first hypothesis:

***Hypothesis 1**: The level of ownership acquired is lower when a CBA takes place in an emerging host country than in an advanced host country.*

3.2.2. The ownership level in emerging countries: EMNEs vs. AMNEs

Previous theories on firms' internationalization, including those that are used to explain ownership level decisions, have usually been tested by analyzing the behavior of AMNEs. In many industries, the internationalization process of AMNEs started earlier than that of EMNEs. As has been previously shown in the descriptive analysis, this also occurred in the mobile telecommunications industry, where MNEs came initially from Europe and the United States. However, some years later, EMNEs appeared, and showed an accelerated pace of internationalization. In this context, a recent debate in the international business literature discusses whether prior theories, primarily applied to AMNEs, can also be used to explain the behavior of EMNEs (Luo & Tung, 2007). Even when motivation to internationalize and the pace of internationalization differ between AMNEs and EMNEs (Guillén & García-Canal, 2009), there is an increasing claim that prior theories can also explain EMNEs' behavior. Nevertheless, this stream of the literature also recognizes that EMNEs significantly differ from AMNEs in their resources and capabilities, and thus in their sources of competitive advantage (Cuervo-Cazurra & Genc, 2008; Ramamurti, 2012).

The main differences between EMNEs and AMNEs are explained by the different levels of development of their home countries. EMNEs usually lack key resources at home, such as

advanced technologies and access to capital markets. Their familiarity with these market conditions gives them a greater understanding of customer, supplier, and competitor behavior in other emerging countries compared to AMNEs. The former are accustomed to face higher levels of uncertainty that come from the existing institutional voids (Cuervo-Cazurra & Genc, 2008; Lall, 1983); in contrast, AMNEs are accustomed to a proper functioning market system and may therefore be unsure about how to operate in emerging countries. Thus, home country characteristics allow EMNEs to generate a valuable skill to manage unfavorable institutional conditions in other emerging countries (Cuervo-Cazurra & Genc, 2008; Meyer, Mudambi, & Narula, 2011). This will make them perceive lower uncertainty when making CBAs in other emerging countries, with the subsequent acquisition of higher levels of ownership. This reasoning suggests that EMNEs acquire higher levels of ownership in CBAs in emerging markets than AMNEs due to their lower levels of perceived uncertainty. Our second hypothesis posits that:

> ***Hypothesis 2****: Being an EMNE positively moderates the negative relationship between the level of ownership acquired and the emerging nature of the host country.*

3.3. RESEARCH SETTING, SAMPLE, VARIABLES AND METHODS

3.3.1. The mobile telecommunications industry

Our analyses are made in the mobile telecommunications industry. Many reasons make this industry highly suitable for the

purposes of this study. First, it is a very important sector that significantly contributes to the global economy. In 2016, the revenues of the mobile telecommunications industry amounted to US$ 3.3 trillion or 4.4 percent of world GDP (GSMA, 2017). Second, it is an industry where mobile groups have substantially expanded abroad in the last decades and, additionally, CBAs are the most frequent entry mode. The growing number of entries and the preference of CBA as the mode of entry make this industry highly suitable to analyze the ownership strategies that MNE follow when performing CBA. One of the key reasons for the fast internationalization of telecom firms was the adoption of the Global System for Mobile Communications (GSM) as the standard of digital mobile networks in the 1990s, which allowed the exploitation of economies of scale and learning around the world (Fuentelsaz, Maícas, & Polo, 2008; Gerpott & Jakopin, 2005). According to GSMA Intelligence (2018), nearly 70 percent of international entries developed by telecom MNEs took place from 2000 to 2016. Additionally, 65 percent of the total entries taking place between 2000 and 2016 were developed through CBAs in this industry. The reason is that the entry of a telecom MNE to enter through a greenfield is only possible when a new license is available in a market. Thus, greenfield investments are limited to certain time windows when license auctions take place (Claussen, Köhler, & Kretschmer, 2018). For this reason, CBAs are the most frequent entry mode in the mobile telecommunications industry. Third, in this industry, there is a wide diversity in terms of the origin of telecom MNEs and the countries where they have entered. This allows us to analyze better the interaction effect between home and host countries' characteristics. Initially, telecom MNEs came from advanced economies in Europe and the United States and primarily entered

other advanced countries. However, nowadays we find high variability in terms of the economic development of both the home and the host countries of mobile groups (Claussen, et al., 2018).

3.3.2. A descriptive analysis of the ownership strategies in the mobile telecommunications industry

With regard to the ownership strategy, the evidence shows that CBAs of mobile groups significantly vary in respect of the ownership acquired (Gerpott & Jakopin, 2008). Previous studies have primarily mentioned the restrictions imposed by the regulation on foreign direct investment (FDI), the stage of telecom liberalization, the reaction of former monopolistic operators, and the strategic alliances of incumbents as determinants of the ownership percentage acquired by telecom MNEs making CBAs (see Jakopin, 2008, for a review).

However, prior studies have not analyzed whether the ownership strategy in the mobile telecommunications industry varies between advanced and emerging host countries, and between AMNEs and EMNEs. We offer a descriptive analysis of the ownership strategy followed by telecom multinationals with the aim of identifying the main relationships between the ownership strategies and the emerging nature of the home and host countries of MNEs. In particular, we carry out a descriptive analysis of the 183 CBAs that took place in the industry between 2001 and 2016. The 53 MNEs that carried out these CBAs came from 35 home countries and expanded to 82 host countries. As can be seen in Table 3.1, the average percentage acquired was 65.8 percent. AMNEs made a total of 77 CBAs during this period, being 42 percent of the total. The average ownership acquired by AMNEs was 64.4 percent. EMNEs made 106

CBAs (58 percent of the total), with an average 66.8 percent ownership. Thus, EMNEs and AMNEs acquired similar levels of ownership. This may suggest that, on average, they follow similar ownership strategies. However, if we go deeper into the analysis, we can see that the ownership percentage acquired varies depending on the level of host country development. As can be observed in the last column of Table 3.1, the ownership percentage acquired in advanced countries is slightly higher than that in emerging countries (67.0% vs. 65.4%). Additionally, significant differences were found when considering the origin of the MNE. While the average ownership percentage acquired by AMNEs was much higher in advanced host countries than in emerging ones (72.5% vs. 57.2%), EMNEs acquired higher levels of ownership in emerging countries than in advanced countries (68.8% vs. 42.4%).

Table 3.1. The ownership acquired depending on the level of development of the host and the home countries

	AMNE	**EMNE**	**Total**	
Advanced host country	72.5	42.4	67	*Average percentage acquired*
	36	8	44	*Number of CBAs*
Emerging host country	57.2	68.8	65.4	*Average percentage acquired*
	41	98	139	*Number of CBAs*
Total	64.4	66.8	65.8	*Average percentage acquired*
	77	**106**	**183**	*Number of CBAs*

There is an additional point that should be highlighted from Table 3.1. Whereas AMNEs entered emerging and advanced host countries equally (36 advanced and 41 emerging host countries), EMNEs primarily focused their expansion on emerging economies:

only eight out of 106 CBAs took place in advanced countries during the period under analysis. To sum up, Table 3.1 allows us to infer two main conclusions: the level of the ownership percentage acquired is, on average, slightly higher in advanced countries; and EMNEs and AMNEs acquire higher levels of ownership in countries that have a similar economic development to those of their origin.

Table 3.2. AMNEs' acquisitions by year

Year	Number of acquisitions in advanced host countries	Average percentage acquired	Number of acquisitions in emerging host countries	Average percentage acquired	Total number of acquisitions
2001	6	50.6	7	52.6	13
2002	4	100	2	55.1	6
2003	0	-	3	53.1	3
2004	0	-	3	100	3
2005	3	50.8	3	31	6
2006	5	99.9	5	69.6	10
2007	2	95	8	42.8	10
2008	1	100	3	56.9	4
2009	5	73.4	1	100	6
2010	2	75	2	45.5	4
2011	0	-	2	59.5	2
2012	0	-	0	-	0
2013	1	89.7	1	100	3
2014	1	60	0	-	1
2015	3	100	1	45	4
2016	2	31	0	-	2
Total	**36**	**72.5**	**41**	**57.2**	**77**

We now go a step further and present a more detailed analysis of the evolution of the percentage acquired by mobile groups from

2001 to 2016, differentiating between their home countries. Table 3.2 shows the CBAs carried out by mobile groups from advanced countries, while Table 3.3 presents this information for EMNEs. As can be seen in Table 3.2, AMNEs made a total of 77 CBAs. Almost three out of four of the CBAs made by AMNEs (55 out of 77) took place in the first half of our observation window—that is, from 2001 to 2008. During these years, AMNEs entered both advanced and emerging countries with a slight predominance of the latter. With the exception of the period between 2009 and 2013, AMNEs acquired higher levels of ownership in advanced countries. In these countries, they acquired, on average, 72.5 percent of operators' equity. In contrast, the mean value of the ownership acquired in emerging countries was 57.2 percent.

Regarding EMNEs, Table 3.3 provides some interesting information about the evolution of CBAs in emerging and advanced host countries. As can be observed in the last column of Table 3.3, EMNEs primarily made their international expansion from 2004 to 2010. Although they started their internationalization process later than AMNEs, EMNEs made many CBAs as well. In fact, EMNEs have been involved in an accelerated internationalization process since 2004 and have primarily used CBAs as their entry mode to build faster resources and the capability to compete globally (Bonaglia, Goldstein, & Mathews, 2007; Liou et al., 2016; Mathews, 2006). Another interesting point that derives from Table 3.3 is that EMNEs tend to acquire a substantially lower ownership percentage when entering advanced countries than when expanding to an emerging host country (42.4% vs. 68.8%).

Table 3.3. EMNEs' acquisitions by year

Year	Number of acquisitions in advanced host countries	Average percentage acquired	Number of acquisitions in emerging host countries	Average percentage acquired	Total number of acquisitions
2001	0	-	1	43.8	1
2002	0	-	2	72.8	2
2003	0	-	3	78.5	3
2004	1	100	10	82.5	11
2005	2	13.2	25	66.2	27
2006	0	-	10	72	10
2007	1	12.3	7	40.7	8
2008	0	-	7	74.3	7
2009	0	-	3	71.8	3
2010	0	-	13	85.8	13
2011	1	100	3	43.6	4
2012	0	-	1	100	1
2013	0	-	0	-	0
2014	1	100	4	42.3	5
2015	0	-	6	95	6
2016	2	39	3	40	5
Total	**8**	**42.4**	**98**	**68.8**	**106**

Besides this, we can also obtain interesting findings by paying attention to the number of CBAs and ownership levels per groups. Table 3.4 and Table 3.5 provide further information about how many CBAs were made by each mobile group and the ownership that was acquired when making them. Once again, we pay attention to the origin of mobile groups and differentiate between EMNEs and AMNEs. Table 3.4 refers specifically to EMNEs and Table 3.5 to AMNEs.

With regard to AMNEs, Orange, Telia, and Vodafone, which made eight, seven, and seven CBAs respectively, were the mobile groups with the greatest number of CBAs, as shown in Table 3.4. Looking at where CBAs took place, we find significant differences in the ownership percentage that is acquired by AMNEs. In advanced countries, AMNEs acquired an average of over 50 percent, with the exception of NTT DoCoMo, and it was often close to 80 percent. However, the heterogeneity in the ownership percentage acquired by AMNEs was much higher when entering emerging countries. In this case, the percentage was often below 50 percent, with the exception of Orange, Telefónica, and Vodafone, which acquired, on average, between 70 percent and 80 percent in emerging countries. The fact that Orange, Telefónica, and Vodafone are some of the groups with the highest levels of international experience may explain this result, since prior experience can influence firm behavior.

Regarding EMNEs, Table 3.5 shows that seven groups stand out as primarily responsible for the CBAs made by EMNEs (67 out of 106 acquisitions). These groups are Bharti Airtel (which made 12 CBAs), Zain (11), VimpelCom (11), Etisalat (9), Global Telecom (8), Maroc Telecom (8), and MTN (8). Table 3.5 also shows that almost all CBAs carried out by EMNEs took place in emerging countries. Furthermore, the few acquisitions that took place in advanced countries were made by groups that had previously completed acquisitions in emerging countries.[15] On average, the ownership acquired by EMNEs is higher in emerging countries (68.8%) than in advanced countries (42.4%).

[15] In fact, groups that had previously made CBAs in emerging countries carried them out many times and not just once.

Table 3.4. AMNEs' acquisitions by group

GROUP	Acquisitions in advanced host countries	% Average acquired	Acquisitions in emerging host countries	% Average acquired	Total number of acquisitions
Orange Group	2	64.7	6	70.1	8
Telia Group	3	100	4	48.5	7
Vodafone Group	5	60.3	2	70	7
Singtel Group	1	100	4	34.3	5
Telefónica Group	2	100	3	83.5	5
Wind Telecom Group (Merged Q2 2011)	2	81.4	2	24.1	4
Telenor Group	2	55.9	2	60.2	4
Softbank Group	4	94.7	-	-	4
AINMT Group (Access Industries Group)	3	88.3	-	-	3
NTT DOCOMO Group	2	13.5	1	30	3
Tele2 Group	1	100	2	70.5	3
Telekom Austria Group	-	-	3	73	3
Trilogy International Partners Group	1	52	2	85.8	3
Altice Group	2	80	-	-	2
Millicom International Cellular Group	-	-	2	74.5	2
PHAROL Group	-	-	2	28.8	2
Telekom Slovenije Group	-	-	2	72.5	2
CK Hutchison Group	-	-	1	29.8	1
NJJ Group	1	100	-	-	1
Orange Belgium Group	1	90	-	-	1
OTE Group	-	-	1	13	1
Proximus Group	1	100	-	-	1
TDC Group	1	76.5	-	-	1
Telecom Italia Group	-		1	54.8	1
Telstra Group	1	60	-	-	1
Vivendi Group	-	-	1	26	1
Liberty Global Group	1	50	-	-	1
Total	**36**	**72.5**	**41**	**57.2**	**77**

Table 3.5. EMNEs' acquisitions by group

GROUP	Acquisitions in advanced host countries	% average acquired	Acquisitions in emerging host countries	% average acquired	Total number of acquisitions
Bharti Airtel Group	-	-	12	88.75	12
Zain Group	-	-	11	79.4	11
VimpelCom Group	2	75	9	71.8	11
Etisalat Group	-	-	9	51	9
Global Telecom Group	1	13.7	7	68.6	8
Maroc Telecom Group	-	-	8	84	8
MTN Group	1	100	7	81.4	8
Axiata Group	1	12.6	4	59.6	5
MTS Group	-	-	5	90.8	5
América Móvil Group	-	-	4	100	4
Oi Group	1	100	3	24.8	4
Emirates International Telecommunication	-	-	3	38.2	3
Batelco Group	-	-	2	58	2
LetterOne Group	1	28.1	1	43.8	2
Ooredoo Group	1	12.3	1	40.8	2
Turkcell Group	-	-	2	65.5	2
Abu Dhabi Group	-	-	1	15	1
Africell Group (Lintel Group)	-	-	1	95	1
Digicel Group	-	-	1	100	1
Maxis Communications Group (Binariang Group)	-	-	1	51	1
Megafone Group	-	-	1	75	1
NMTC Group	-	-	1	38	1
Oger Telecom Group	-	-	1	22.1	1
Orascom Telecom Media and Technology Group	-	-	1	34.7	1
STC Group	-	-	1	51	1
Telekom Srbija Group	-	-	1	65	1
Total	**8**	**42.4**	**98**	**68.8**	**106**

However, three groups—MTN, Oi, and VimpelCom—performed CBAs with higher levels of ownership in advanced countries than in emerging ones. MTN and VimpelCom are again two of the groups with the highest international experience of performing CBAs.

3.3.3. Sample, variables and methodology

The previous section is based on a descriptive analysis that takes into account the behavior of EMNEs and AMNEs when expanding abroad. Although this analysis provides us with an interesting perspective, we now deepen in the interaction between the level of development of the home and the host countries and its effect on the level of ownership acquired in CBAs in order to acquire better knowledge.

We test our hypotheses in the same sample that was used in the descriptive analysis—that is, 183 CBAs carried out in 82 host countries by 53 MNEs from 35 home countries in a time frame that covers 2001 to 2016. Our data come from different sources, but the main one is GSMA Intelligence (2018). To obtain our control variables, we use the Heritage Foundation and the World Development Indicators.

Dependent variable

The dependent variable is the percentage of *ownership* that an MNE (the acquirer firm) acquires in a subsidiary (the target firm). In line with recent studies, we use a continuous variable that is bounded

between 10 percent and 100 percent (Cuypers, Ertug, & Hennart, 2015; Dow, Cuypers, & Ertug, 2016; Malhotra & Gaur, 2014).[16]

Independent variables

Emerging country. We introduce a dummy variable that takes the value of 1 when the country where the CBA takes place is an emerging country, and 0 otherwise. Following previous studies, we use the official classification of the International Monetary Fund (IMF) to classify countries as advanced or emerging (De Beule et al., 2014).[17]

Emerging multinational enterprises (*EMNEs*). To account for the origin of the MNE, we also use a dummy variable that takes the value of 1 when the MNE comes from a country that is classified as an emerging country in accordance with the IMF classification, and 0 otherwise.

Control variables

Similar to previous studies, our model controls for some firm and market characteristics. We control for *subsidiary size*, since smaller subsidiaries may need more resources and therefore may be susceptible to being acquired with greater levels of ownership. We measure the subsidiary size as millions of connections.[18] We also control for the previous experience that mobile groups have in

[16] We follow the guidelines of the International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD) that consider the existence of an FDI when the MNE owns at least 10 percent of the subsidiary equity. Otherwise, MNEs may not exercise effective management control.

[17] This classification is dynamic, which means that some countries, such as Cyprus or Malta, changed their status during the observed period. However, in most of the cases (96.5%), countries maintained their status of emerging or advanced over the whole period.

[18] Connections make reference to the number of SIM cards (or phone numbers, where SIM cards are not used), excluding cellular M2M, that were registered on the mobile network at the end of the period (GSMA Intelligence, 2018).

internationalizing (*group international experience)*. We measure this variable by counting the number of countries—other than the original one—where the MNE has a presence. Greater international experience is associated with greater knowledge about the internationalization process, and therefore with lower perceived uncertainty. The lower the uncertainty, the higher the level of ownership acquired (Chari & Chang, 2009).

With regard to market characteristics, we control for host and home country characteristics. In particular, we include the opening level of host countries (*open markets*). This variable is calculated as the average value of the trade, investment, and financial freedom dimensions from the Heritage Foundation indicators. The resulting measure is between 0 and 100. Higher values of this variable indicate greater openness of the market. Greater opening of the host country facilitates CBAs (Kandogan & Johnson, 2016) and is positively related to the acquired level of ownership. Similar to previous studies, we also control for the size of the host country (*host country size)* through its population in millions of habitants. Additionally, countries with lower levels of competition are expected to be more attractive for firms to enter. We approach competition through *host country concentration,* including the Herfindahl-Hirschman index on a scale from 0 to 10,000. Similarly, we control for the size and the competitive level of the home country by including *home country concentration* and *home country size*.

Finally, we also include some variables that relate to the home and host countries. In particular, we control for *geographical distance,* since it may cause firms to perceive greater uncertainty (Malhotra & Gaur, 2014). In line with prior studies, we measure this according to

the Geobytes database, which gives the kilometers between the capital cities of the home and host countries (Malhotra, Sivakumar, & Zhu, 2009; Slangen & Beugelsdijk, 2010). We also include *geographical distance*[2], because the cost and the benefit trade-off of full versus partial ownership varies at different levels of geographical distance (Malhotra & Gaur, 2014). Finally, we include time effects with dummy variables.

Descriptive statistics

Table 3.6 shows the descriptive statistics of our sample. The mean value of *ownership* is 65.8 percent with a standard deviation of 33.2 percent. In accordance with our measure, the minimum ownership that mobile groups acquired in the observed period was 12 percent, the maximum 100 percent. Regarding our independent variables, *emerging country* has a mean value of 0.8 with a standard deviation of 0.4. This means that the CBAs that are included in our sample took place more often in emerging countries than in advanced ones. Similarly, the mean value of *EMNEs* is 0.6, which indicates a greater prevalence of CBAs made by EMNEs over those that were carried out by AMNEs. However, the standard deviation of this variable is 0.5, which indicates high variability regarding the home country of companies involved in CBAs. EMNEs such as Bharti Airtel or Zain carried out a high number of acquisitions in comparison to other groups such as NMTC. Similarly, AMNEs such as Orange made eight acquisitions, while other companies, such as Liberty Global, made only one in the whole period. Regarding control variables, we note that, on average, the *subsidiary size* is 4.5 million connections. However, the high standard deviation (8.9) reveals important differences between firms, which is reflected in the maximum (51) and

minimum (0.01) values of this variable. MNEs also show great differences in their levels of internationalization, as is shown by the high value of the standard deviation of *group international experience*. On average, mobile groups expanded to 12 countries. Some groups, such as LetterOne and Softbank, only expanded to one foreign country, while others, such as Orange, entered more than 40 countries.

Table 3.6. Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Max
Ownership	183	65.8	33.2	0.12	100
Emerging country	183	0.8	0.4	0	1
EMNEs	183	0.6	0.5	0	1
Subsidiary size	183	4.5	8.9	0.01	51
Group international experience	183	12.7	9.3	1	44
Host country concentration	183	4380	1526	1485	10000
Home country concentration	183	3970	1901	1453	10000
Host country size	183	43.5	65.4	0.4	317.7
Home country size	183	134.7	300.3	0.4	1335
Open markets	183	56.68	16.17	13.33	90
Geographical distance	183	3.80	2.92	0	17
Geographical distance^2	183	22.96	33.12	0	289

Regarding market characteristics, home and host countries show similar values of competitive level. In particular, the mean value of *host country concentration* is 4,380 and the mean value of *home country concentration* is 3,970. The two also have similar standard deviation—1,526 and 1,901, respectively. Nevertheless, this does not occur when we compare the size of the home and the host countries. Home countries tend to be bigger than host countries. While the mean value of *host country size* is 43.5 million habitants, *home country size* has a mean value of 134.7 million habitants. Home countries also show greater variability in their size, as is shown by the value of its standard

deviation. In addition, the mean value of *open markets* is 56.68, with a maximum of 90 and a minimum value of 13.3. Finally, we can observe that home and host countries, on average, face a distance of 3.8 thousand kilometers, as is shown by the mean value of *geographical distance*. Nevertheless, this variable shows a high standard deviation—2.92—which indicates great variability in the distance between the home and the host countries.

Table 3.7. Correlations

		1	2	3	4	5	6	7	8	9	10	11	12
1	*Ownership* (1)	1											
2	*Emerging country* (2)	-0.02	1										
3	*EMNEs*(3)	0.04	0.45*	1									
4	*Subsidiary size* (4)	-0.39*	-0.26*	-0.02	1								
5	*Group international experience* (5)	0.08	-0.06	-0.23*	0.10	1							
6	*Host country concentration* (6)	-0.01	0.31*	0.11	-0.30*	-0.02	1						
7	*Home country concentration* (7)	-0.13*	0.15*	0.26*	-0.11	-0.19*	0.08	1					
8	*Host country size* (8)	-0.37*	0.00	-0.05	0.49*	-0.06	-0.30*	-0.01	1				
9	*Home country size* (9)	0.11	0.13*	0.24*	0.08	0.11	-0.09	-0.43*	0.05	1			
10	*Open markets (*10)	0.02	-0.43*	-0.36*	0.19*	0.06	-0.18*	-0.10	-0.13*	-0.12	1		
11	*Geographical distance* (11)	-0.09	0.14*	0.09	-0.05	0.23*	0.01	0.05	0.08	0.24*	-0.13*	1	
12	*Geographical distance*^{2} (12)	-0.09	-0.03	-0.05	0.00	0.19*	-0.05	-0.03	0.10	0.19*	0.05	0.91*	1

$^*p < 0.1$

Table 3.7 shows the correlations between the variables that are included in our analysis. Generally speaking, the variables do not show very high correlations. Multicollinearity does not pose a problem. We carried out a test for potential multicollinearity before estimating the regression model and found that the variance inflation factor in our models was below 4.5, far below the threshold of 10 (Kutner, Nachtscheim, Neter & Li, 2005). *Emerging country* is negatively correlated with our dependent variable, while *EMNEs* are positively associated with it. One of the highest correlations is found between *host country size* and *subsidiary size* (0.49). This means that bigger countries tend to be home to bigger firms. Similarly, *home*

country size and *home country concentration* present a correlation of -0.43. This may be explained by the fact that bigger countries tend to attract more firms (Nachum et al., 2008). The greater the number of competitors in the home market, the lower the probability of having concentrated home countries. Finally, *emerging country* shows a correlation of -0.43 with *open markets*. Emerging countries are often closer in terms of ease of entering them than advanced countries.

Methodology

The dependent variable is a limited variable subject to an upper (100%) and a lower (10%) boundary. For limited dependent variables, a classic ordinary least squares regression model will give biased and inconsistent estimates (Maddala, 1983). In this situation, a Tobit regression analysis is recommended (Greene, 1993). Indeed, Tobit estimation has been performed in prior studies with an identical dependent variable (Chari & Chang, 2009; Cuypers et al., 2015; Dow et al., 2016; Malhotra & Gaur, 2014; Pan et al., 2014).

3.4. RESULTS

Table 3.8 provides the results of our Tobit estimations (Models 1 to 5). Model 1 only considers the influence of the control variables in the ownership acquired by MNEs. Model 2 introduces the effect that CBAs in an emerging country have on the dependent variable, to test Hypothesis 1. Model 3 introduces the variable *EMNEs* to the baseline model and Model 4 incorporates the direct effect of both *emerging country* and *EMNEs*. Finally, Model 5 introduces the interaction effect between *emerging country* and *EMNEs* to test Hypothesis 2. The likelihood ratio tests are presented at the bottom of Table 3.8. They

show that Model 5 is the model that best fits our data; thus, we employ it to comment our results.

Table 3.8. Determinants of ownership acquired

	Model 1	Model 2	Model 3	Model 4	Model 5
Emerging country		-19.741*		-24.056**	-34.116***
		(10.350)		(10.651)	(11.402)
EMNEs			7.178	11.988	-21.371
			(7.571)	(7.769)	(16.720)
Emerging country x EMNEs					39.280**
					(17.550)
Subsidiary size	-1.599***	-1.704***	-1.594***	-1.717***	-1.709***
	(0.552)	(0.554)	(0.549)	(0.548)	(0.538)
Group international experience	0.714**	0.691**	0.793**	0.817**	0.811**
	(0.348)	(0.346)	(0.356)	(0.352)	(0.346)
Host country concentration	-0.003*	-0.002	-0.003*	-0.002	-0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Home country concentration	-0.001	-0.001	-0.002	-0.002	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Host country size	-0.121**	-0.117**	-0.120**	-0.115**	-0.124**
	(0.057)	(0.057)	(0.057)	(0.056)	(0.055)
Home country size	0.019	0.019	0.014	0.012	0.009
	(0.016)	(0.016)	(0.017)	(0.017)	(0.017)
Open markets	3.755	-0.863	4.145	-1.221	-0.402
	(3.618)	(4.315)	(3.625)	(4.280)	(4.205)
Geographical distance	-0.561	0.231	-0.899	-0.146	0.970
	(2.890)	(2.901)	(2.898)	(2.886)	(2.867)
Geographical distance²	-0.168	-0.230	-0.136	-0.191	-0.261
	(0.243)	(0.244)	(0.245)	(0.243)	(0.240)
Dummy years	YES***	YES***	YES***	YES***	YES***
_cons	37.125	41.752*	34.859	38.820*	47.944**
	(23.566)	(23.492)	(23.571)	(23.329)	(23.226)
sigma					
_cons	34.340***	34.058***	34.181***	33.729***	33.021***
	(2.416)	(2.393)	(2.406)	(2.370)	(2.319)
N	183	183	183	183	183
LL ratio test vs Model 1		3.67*	0.89	6.03**	10.98**
LL ratio test vs Model 2				2.36	7.31**
LL ratio test vs Model 3				6.03**	10.09***
LL ratio test vs Model 4					4.95**

*Standard errors in parentheses; * p < 0.1, ** p < 0.05, *** p < 0.01*

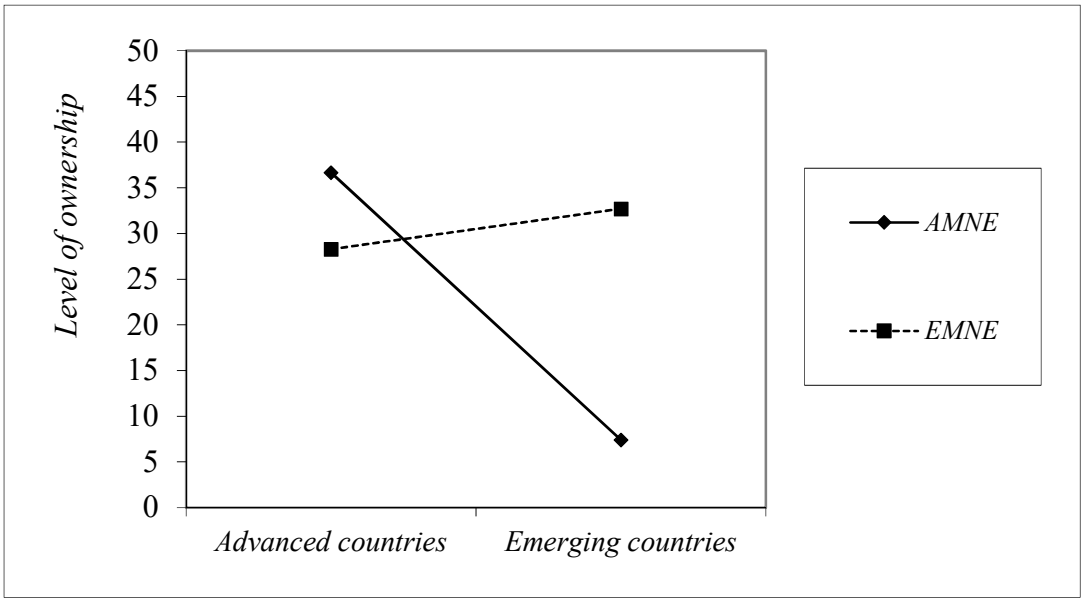
Hypothesis 1 stated that the emerging nature of the host country negatively influences the percentage that MNEs acquire in the subsidiary. Model 5 shows that *emerging country* has a negative and significant effect on *ownership* (β= -34.116; p<0.01). This means that

CBAs in emerging countries are carried out with lower levels of ownership, giving support to Hypothesis 1. MNEs tend to acquire higher levels of ownership in subsidiaries that are located in advanced countries.

However, it is not only the emerging nature of the host country that is important in the choice of ownership acquired, but also the origin of the MNE. Hypothesis 2 posited that MNEs that come from emerging countries acquire higher levels of ownership in emerging countries than AMNEs. Model 5 shows that the interaction term between *emerging country* and *EMNEs* is positive and statistically significant ($\beta=39.28$; $p<0.05$). Being an EMNE positively moderates the negative impact that making a CBA in an emerging country has on the percentage of ownership acquired. EMNEs opt for a greater ownership percentage than AMNEs when making CBAs in emerging countries. This is consistent with Hypothesis 2 and we cannot therefore reject it.

Figure 3.1 depicts this moderating effect by showing two lines. The solid line refers to AMNEs and the dotted line to EMNEs. The former has a negative slope, which means that AMNEs acquire lower ownership percentages in emerging countries than in advanced ones. The opposite trend is found in the case of EMNEs. The positive slope of the dotted line means that EMNEs opt for greater levels of ownership in emerging countries than in advanced countries. This confirms our premise that the origin of the MNE plays a significant role in understanding the relationship between the level of ownership acquired in a CBA and the level of development of the host country where the CBA takes place.

Figure 3.1. Interaction between emerging countries and EMNEs



3.5. DISCUSSION AND IMPLICATIONS

This research has analyzed entry by MNEs in the mobile telecommunications industry when performing CBAs. More precisely, we have observed that AMNEs and EMNEs behave differently when deciding on the ownership acquired when entering a foreign country. Prior studies suggest that the characteristics of the host country significantly determine the level of ownership acquired in a subsidiary. Our premise is that it is not only host country characteristics that are relevant, but also the characteristics of the home country. The latter define the conditions under which MNEs are accustomed to operating and therefore influence how they perceive the host country characteristics. Following recent studies, we noted that emerging and advanced countries show great differences in terms of their market characteristics. Thus, we differentiated home and host countries and distinguished between EMNEs and AMNEs. This classification led us to address two research questions.

Firstly, we analyzed how the emerging or advanced nature of the host country determines the level of ownership acquired by MNEs when making CBAs. Our results show that MNEs acquire higher levels of subsidiaries' ownership when CBAs take place in advanced countries. Emerging countries are characterized by institutional voids that cause MNEs to perceive greater uncertainty surrounding CBAs. Due to this, they prefer to acquire a lower percentage of ownership to be able to leave more easily the investment if their expectations are unsatisfied. Moreover, this allows MNEs to maintain local investors that facilitate their introduction into the informal business network of the emerging country. Our results expand prior studies and confirm that the level of development of the host country is highly relevant to explain the ownership percentage acquired by MNEs in regulated industries.

Secondly, we analyzed whether being an EMNE alters the relationship between the development of the host country and the level of ownership acquired in CBAs. AMNEs and EMNEs behave differently when making CBAs since they are accustomed to different market conditions in their home countries. In particular, we posited that EMNEs acquire higher levels of ownership than AMNEs when making CBAs in emerging countries. Our results confirmed this assumption. EMNEs are accustomed to operating under weaker market institutions in their home countries (Cuervo-Cazurra & Genc, 2009) and so, in comparison to AMNEs, they perceive lower uncertainty when making CBAs in other emerging countries. Advanced countries have usually stronger market systems that facilitate the development of economic activities. Thus, AMNEs trust in the market mechanisms that support their activities and perceive

great uncertainty when these conditions do not exist. This explains why they perceive emerging countries as riskier host countries than EMNEs do. In contrast, EMNEs have a different starting point and know how to operate under weaker market mechanisms. Thus, they do not perceive as much uncertainty as AMNEs when making CBAs in other emerging countries and are willing to acquire higher levels of ownership. Our results confirm that MNEs in regulated industries use their skills in dealing with governments and regulators when expanding abroad (García-Canal & Guillén, 2008). EMNEs are likely to acquire greater levels of ownership because they are more confident of dealing with the uncertainty of the host country than AMNEs.

Our study may be of interest for target firms' managers and public policy makers. From a managerial point of view, this study shows that the level of development of the country where the target company is located and the level of development of the country of the acquirer will determine the percentage of ownership that MNEs are going to acquire. The target mobile operator may anticipate which mobile groups are more likely to acquire higher levels of equity based on their location. When the mobile operator is located in an emerging country, the likelihood of being majority-owned by a mobile group that comes from an emerging country is greater. From the point of view of policy makers, this study shows that their decision about how much to intercede in the functioning system of the market will determine the level of ownership that mobile groups are likely to acquire when making a CBA. In this vein, governments from emerging countries that are interested in attracting investment from advanced economies should try to reduce the institutional voids that

foreign investors perceive. For instance, policy makers should try to improve the system of property rights protection and promote mechanisms to facilitate the introduction of foreign investors into the informal business network (e.g., trade associations and conventions).

Our research is not exempt from limitations. Firstly, we differentiate between emerging and advanced host and home countries by using the IMF official classification. Even though this classification has been used in prior research with similar purposes, we cannot overlook that countries that are classified in the same group may differ substantially. In fact, when looking at the evolution of countries' development over time, it is seen that some changed their status during the observed period. This means that those emerging (advanced) countries that are closer to the threshold may be more similar to advanced (emerging) countries than to other countries in their same category. Future research may take care of this issue by making more accurate classifications of countries. Secondly, we have controlled for prior experience in making CBAs. However, we do not differentiate whether this experience took place in advanced or emerging countries. AMNEs that have made many CBAs in emerging countries may have acquired enough knowledge about the functioning of these countries and, therefore, may perceive less uncertainty than other AMNEs without such experience.

To conclude, it is important to note that this study contributes to prior literature in two ways. Firstly, we show that telecom MNEs face institutional voids in emerging markets that make them acquire higher levels of ownership in advanced countries than in emerging countries. Secondly, our results contribute to the literature by confirming that EMNEs and AMNEs behave differently when

expanding abroad because of their different perceptions of uncertainty derived from institutional voids in emerging markets. While EMNEs are used to counteracting institutional voids in their home countries, AMNEs find investments in emerging countries risky ventures. Norms and regulations are usually less developed in these countries, which makes business more difficult to carry out. This often leads to an increase in the perceived uncertainty surrounding CBAs made there. However, EMNEs feel much more comfortable than AMNEs when making CBAs in emerging countries, so they tend to acquire higher levels of ownership than AMNEs in these countries.

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APPENDIX. HOST AND HOME COUNTRIES

Host countries (82 countries)				
Angola	*Congo*	*Iran*	*Netherlands*	*Togo*
Armenia	*Congo, Dem. Rep*	*Ireland*	*New Zealand*	*Tunisia*
Australia	*Cote d'Ivoire*	*Italy*	*Niger*	*Turkey*
Bangladesh	*Cyprus*	*Japan*	*Nigeria*	*Turkmenistan*
Belarus	*Denmark*	*Jordan*	*Norway*	*Uganda*
Benin	*Egypt*	*Kazakhstan*	*Pakistan*	*Ukraine*
Bolivia	*Equatorial Guinea*	*Kenya*	*Paraguay*	*United Arab Emirates*
Bosnia	*Estonia*	*Korea, South*	*Peru*	*United Kingdom*
Botswana	*France*	*Kyrgyzstan*	*Portugal*	*USA*
Bulgaria	*Gabon*	*Laos*	*Saudi Arabia*	*Uruguay*
Burkina Faso	*Greece*	*Luxembourg*	*Singapore*	*Uzbekistan*
Burundi	*Guinea-Bissau*	*Macedonia*	*Slovenia*	*Venezuela*
Cabo Verde	*Guyana*	*Malta*	*Spain*	*Yemen*
Central Africa	*Haiti*	*Moldova*	*Sri Lanka*	*Zambia*
Chad	*Honduras*	*Morocco*	*Sweden*	
Chile	*Hong Kong*	*Namibia*	*Switzerland*	
Colombia	*Indonesia*	*Nepal*	*Tajikistan*	

Home country group (35 countries)				
Australia	*France*	*Japan*	*Portugal*	*South Africa*
Austria	*Gambia*	*Kuwait*	*Qatar*	*Spain*
Bahrein	*Greece*	*Luxemburg*	*Russian Federation*	*Sweden*
Belgium	*Hong Kong*	*Malaysia*	*Saudi Arabia*	*Turkey*
Brazil	*India*	*Mexico*	*Serbia*	*United Arab Emirates*
Denmark	*Italy*	*Morocco*	*Singapore*	*United Kingdom*
Egypt	*Jamaica*	*Norway*	*Slovenia*	*USA*

CHAPTER 4

SPEED OF INSTITUTIONAL CHANGE AND SUBSIDIARY PERFORMANCE: THE IMPACT OF HOME COUNTRY LEARNING

4.1. INTRODUCTION

The effect that changes in *market-supporting institutions* (i.e., institutions that "support the voluntary exchange underpinning an effective market mechanism", Meyer et al., 2009: p. 63) have on firm performance has been widely studied in the literature (Chari and Banalieva, 2015; Cuervo-Cazurra & Dau, 2009; Dau, 2013; Park, Li, & Tse, 2006). However, there is a lack of consensus about the sign and significance of this relationship. While some studies report that institutional changes in favor of the market (namely, pro-market reforms) lead to higher performance (Cuervo-Cazurra & Dau, 2009; Park et al., 2006), other research fails to find such positive effects or even finds a U-shaped relationship (Chari & Banalieva, 2015; Lee, Peng, & Lee, 2008; Salim, 2003). Probably the main motive why previous evidence may not effectively explain the performance consequences of pro-market reforms is related to the static conceptualization of institutional change. This is the cause why recent research has searched for a more detailed explanation that incorporates a dynamic approach in what has been called the *dynamic institution-based view* (Banalieva, Eddleston, & Zellweger, 2015).

Pro-market reforms can be carried out gradually in long periods of time or can be rapidly developed in short periods (Chen et al., 2017). As a consequence, recent research has paid special attention not only to the institutional change itself but also to the speed at which this change takes place, emphasizing the dynamic nature of institutional conditions (Kim, Kim, & Hoskisson, 2010; Xu & Meyer, 2013). This pace at which market-supporting institutions evolve has important consequences on firms' strategy since it affects their response capabilities (Kim et al., 2010) and performance (Banalieva,

Cuervo-Cazurra, & Sarathy, 2018; Banalieva et al., 2015). The dynamic institution-based view of strategy emerges as a research stream that explains the influence of the speed of pro-market reforms on firm decisions (such as entry mode, Chen et al., 2017) and performance (Banalieva et al., 2015; Banalieva et al., 2018).

Previous studies have shown that firms are heterogeneous when interacting with the environment, and not all firms adapt to changes in the same way. For example, the literature has analyzed the differences between family and non-family firms (Banalieva et al, 2015) or between firms with different levels of market experience (Chen et al., 2017). However, little attention has been paid to the institutional advantages that MNEs can exploit to better counteract rapid institutional changes in the host countries where they operate. These institutional advantages come from the learning process that they have experienced in their home countries. First, some MNEs might develop institutional competitive advantages because they come from emerging countries where they are facing continuous institutional changes, so that institutional learning can help them to better understand and adapt to rapid institutional changes in host countries (Martin, 2014). Second, the experience gained from facing higher levels of competition in the home country -i.e. the competitive learning- generates new capabilities to face highly competitive situations (the result of pro-market reforms). This can be a source of institutional advantage when rapid institutional changes take place (Cuervo-Cazurra, Luo, Ramamurti, & Ang, 2018). Given that one of the reasons for the internationalization of MNEs is to exploit their resources and advantages in host markets, we posit in this paper that subsidiaries will exploit home country learning (both institutional

and competitive) of their parent MNE to better adapt to rapid pro-market reforms in the host country. This constitutes a promising line of research that has not been previously analyzed and we aim to develop through this paper.

As a consequence, the objective of this study is to expand pro-market institutions literature, analyzing the role of institutional advantages from home country learning on subsidiaries' performance under the lens of the dynamic institution-based view. Although we expect a negative relationship between the speed of change of market-supporting institutions and subsidiary performance, not all firms adapt to these changes in the same way (Banalieva et al., 2015). We propose that subsidiaries of MNEs with origin in more competitive countries (where pro-market reforms have been successfully implemented) and in emerging countries (where pro-market reforms are taking place more intensively) can exploit their institutional advantages to better adapt to rapid institutional changes.

We focus our empirical analysis on the worldwide mobile telecommunications industry from 2001 to 2017. This industry has experimented an exponential process of internationalization during the last decades. While earlier multinationals had their origin in advanced countries, recent mobile groups have appeared during the last years in emerging economies. Both of them are currently competing globally.

The contribution of this article is twofold. First, under the lens of the dynamic institution-based view, we analyze the importance of home country learning to reduce the negative effect of rapid institutional change on subsidiary performance. We respond to the

call to incorporate the home country conditions in the institutional change research, as well as the need to deepen in the relationship between institutional changes and firm performance (Cuervo-Cazurra, Gaur, & Singh, 2019). In doing so, we posit that subsidiaries differ in their capability to answer to rapid changes of market-supporting institutions. MNEs that come from countries with high levels of competition and those that come from emerging markets have the chance to develop better capabilities to provide an adequate answer to rapid changes in the institutional environment and their subsidiaries can benefit from this experience. To our knowledge, our research is the first attempt to analyze to what extent subsidiaries can benefit from the institutional advantages developed by their parent MNEs in their home countries as a consequence of the competitive and institutional learning. Second, we provide additional empirical support for the dynamic institution-based view of the strategy. While prior studies have focused on emerging economies (Banalieva et al., 2018) or subnational regions (Banalieva et al., 2015), we use a wide sample that includes 352 subsidiaries from 77 MNEs located in 34 developed and 110 emerging economies from 2001 to 2017.

4.2. LITERATURE REVIEW

4.2.1. The dynamic institution-based view of strategy

The institution-based view of strategy argues that the institutional environment where companies compete, the 'rules of the game' (North, 1990), influences firms' choices by restricting or facilitating their activity (Peng et al., 2008, 2009). This institutional approach has become a substantial paradigm for understanding the organizational phenomena,

jointly to the industry-based and resource-based views (Peng et al., 2009).

Institutions are important for economic activity because they provide stability for economic exchanges by reducing uncertainty (North, 1990). Previous research has studied how the institutions in a country constitute a crucial factor that influences both the strategic decisions of firms and their performance (Ang, Benischke, & Doh, 2015; Dikova & Brouthers, 2016; Hernández, Nieto, & Boellis, 2018; Wan & Hoskisson, 2003). Among these institutions, scholars have kept special attention to the importance of *market-supporting institutions* that facilitate economic exchanges and promote an effective market mechanism (Meyer et al., 2009). Strong market-supporting institutions can contribute to more efficient transactions by reducing the costs of doing business (North, 1990). For instance, the existence of financial intermediaries facilitates the access to capital and information, which reduces uncertainty surrounding businesses and promotes the entry of new competitors. An effective judiciary system allows firms to request for protection of their property rights, which can promote innovative activities within the firm and the economy (James, Leiblein, & Lu, 2013). As property rights protection is enforced by the judiciary system, infringement is less prone to occur and it reduces the litigation costs of innovative firms (Lanjouw & Schankeman, 2004; Lerner, 1995). Moreover, market-supporting institutions condition the performance obtained from key strategic decisions such as diversification (Wan & Hoskisson, 2003), radical innovations (Fuentelsaz, Garrido, & Maícas, 2015) and environmental strategies (Goedhuys & Sleuwaegen, 2013).

It has also been acknowledged that the rules of the game change over time (Peng, 2003). Countries usually implement institutional

changes mainly with the aim of liberalize the market. These changes are usually known as pro-market reforms (Cuervo-Cazurra & Dau, 2009; Hoskisson et al., 2000; Newman, 2000; Park, et al., 2006; Peng, 2003).[19]According to Dau (2012), pro-market reforms lead to national governance improvements and economic liberalization. First, governments try to reduce market imperfections through improvements on law and regulations, public goods and infrastructures. For instance, governments increase labor flexibility by reducing restrictions on termination of employment (Botero et al., 2004), encourage property rights protection by improving patent laws (Michel et al., 2013) and reduce uncertainty by facilitating the process of enforcing contracts in courts (North, 1991). Second, economic liberalization minimizes the government intervention on economic activities, becoming a facilitator instead of an active participant. For this reason, pro-market reforms usually bring price liberalization and reduction of industry and trade barriers in a country, which favors competition and entry of foreign investors (Dau, 2012).

The inefficiencies in the institutional environment inhibit economic activity, especially in emerging countries where market-supporting institutions are less developed (Hoskisson et al., 2000; Hoskisson et al., 2013; Khanna & Palepu, 1997). Weak market-supporting institutions restrict competition and innovation by discouraging people with ideas for new products and processes to enter the market and challenge established companies (Djankov et al., 2002; Svorny, 2000). With the aim of encouraging economic activity, governments from most countries have promoted institutional reforms aimed at creating a more market-

[19] In this paper we indistinctively use institutional changes and pro-market reforms to refer to variations in the level of development of market-supporting institutions that lead to national governance improvements and economic liberalization.

based economy (Cuervo-Cazurra & Dau, 2009; Ireland, Tihanyi, & Webb, 2008; Kim et al., 2010; Park et al., 2006). Pro-market reforms can contribute to greater competition and innovation by an improvement of market-supporting institutions that facilitate economic exchanges.

In spite of the above arguments, previous empirical studies show inconclusive evidence about the effect that pro-market reforms have on firm performance (Banalieva et al., 2018). Some studies that focus on emerging environments report that pro-market reforms lead to a better performance (Cuervo-Cazurra & Dau, 2009; Park et al., 2006), while others fail to find such positive effects (Lee, et al., 2008; Salim, 2003). More recent studies report a U-shaped relationship between institutional reforms and firm performance (Chari & Banalieva, 2015). Given the absence of consensus, some studies have tried to provide a more complete explanation by incorporating a dynamic approach to the concept of institutional change. Previous research had considered institutional change as a static event, while pro-market reforms take time and are not developed in one-step (Banalieva et al., 2015). These reforms can be carried out gradually during a long period of time or they can be rapidly developed (Chen, et al., 2017). The *dynamic* institution-based view of strategy focuses on the effect that the speed of institutional changes has on firm choices and performance (Banalieva et al., 2015).

According to this perspective, an institutional change implies a multi-stage process in which each stage derives in different institutional environments and institutional logics (Greenwood, Suddaby, & Hinings, 2002; Hoffman, 1999; Peng, 2003) and the transition from one stage to the next can vary in its velocity. The signaling theory indicates that governments, through their behavior, send signals to show their efforts in introducing reforms for or against the liberalization (Huang,

2013; Walsh, 2007). Therefore, some governments promote market-supporting institutions quickly to send signals of efficiency in the market, to show the commitment of the government with market liberalization and to try to reduce transaction costs (Banalieva et al, 2018). Nevertheless, other governments, that have already undergone a period of intensive pro-market reforms, can implement them more slowly due to pressures from stakeholders, or because a change of government mandate (Rajan & Zingales, 2003). From the dynamic institution-based view, the institutional change is not as important as the speed to which this change takes place (Banalieva et al., 2015), which can influence firm performance by creating an unstable environment. As Banalieva et al. (2015) posits, the notion of speed refers both to the change in the level of development of market-supporting institutions (distance travelled) and to the time needed to develop this change (time duration). In this way, this construct complements the static view of change in prior studies, which only focus on the final result of the pro-market reforms and adopt a dynamic perspective, that also takes into consideration how quick the result has been achieved.

4.2.2. Home Country Learning and Institutional Advantages

Firms are heterogeneous in their ability to interact with the institutional environment (Chen et al., 2017) and they do not respond in the same way to institutional changes (Oliver, 1991). Some firms have resources that lead to a better adaptation (Chari & Banalieva, 2015; Kim et al., 2010; Xu & Meyer, 2013), thus conferring them an institutional competitive advantage. According to Martin (2014: 59), a firm has an *institutional competitive advantage* when "is implementing a strategy, featuring distinctive resources and activities enabled by its interactions

with the institutional environment, which generates economic value in excess of its competitors".

When institutional changes take place, firms will be forced to de-institutionalize norms, beliefs and practices previously legitimized to adapt to the new rules of the game. They need to improve resources, capabilities, productivity and the efficiency in the allocation of resources to survive as consequence of pro-market reforms (Oliver, 1992). The literature has shown that firms generate new resources and capabilities through learning and experience curves. An important learning source for MNEs is the home country learning (Cuervo-Cazurra et al., 2018) that can be key in the internationalization decisions, such as foreign direct investment (Cuervo-Cazurra et al., 2018), and can become a source of institutional advantage.

According to Cuervo-Cazurra et al. (2018), we can differentiate two types of home country learning for MNEs: institutional and competitive learning. We define institutional learning as the experience gained in the home country derived from facing the particularities of institutions, learning that is specially relevant when institutions are weak. Subsidiaries of MNEs that come from home countries with weak institutions have obtained an institutional learning that can be valuable to compete in host countries with institutional voids in comparison to subsidiaries that belong to MNEs from countries with more developed institutions (Cuervo-Cazurra et al., 2018). Some MNEs can use their exposure to weak and changing institutions in its home country as a source of competitive advantage in host countries (Cuervo-Cazurra & Genc, 2008), which can derives in an institutional advantage (Martin, 2014).

In the same way, we define competitive learning as the experience gained in the home country due to the exposure to high levels of competition, which forces MNES to improve their competitiveness (Cuervo-Cazura et al., 2018). This competitive learning can confer a competitive advantage to the MNEs when pro-market reforms take place in a host country, since they are used to counteract new competitors, products and consumer preferences in their home countries. This experience to face highly competitive environments is an intangible asset that can be a source of competitive advantage when rapid changes takes place and competition suddenly increase (Martin, 2014).

As a consequence of the institutional and competitive environment from which MNEs come, they can possess a valuable experience to better adapt to rapid institutional changes in the host countries when new competitive conditions arise. Similar to experience acquired through skills-based routines (Caves, 1996; Dunning 1980; Kogut & Chang, 1991), which evolve through replication and search, institutional and competitiveness experience can be firm-specific resources (Perkins, 2014). The theory suggests that subsidiaries can benefit from the intangible resources of MNEs (Caves, 1996; Dunning, 1988). Subsidiaries from MNEs that possess institutional or competitive learning might better adapt to rapid institutional changes in comparison to competitors, exploiting the institutional competitive advantage of their MNE.

4.3. HYPOTHESES

4.3.1. Speed of Institutional Change and Subsidiary Performance

As we have previously noticed, institutions are important for economic activity and firm performance because they provide stability for economic exchanges (North, 1990). However, the institutional framework in which firms are immersed is complex and constantly changing (Peng, 2003). The complexity of institutional change and its impact on firm performance have attracted the attention towards the organizational adaptation capabilities as central research topic. The ability to cope with contextual forces that are often drastically altered has become a key determinant of firm competitive advantage (D'Aveni, 1994). This ability is dependent on the speed of institutional change (Banalieva et al., 2015). Gradual institutional change allows firms to adjust with minimum stress (Godoy & Stiglitz, 2007; Murrell, 1992), while when changes happen quickly, uncertainty increases (Chari & Banalieva, 2015). This is a challenge for subsidiaries that seek to adapt to the changing rules of the game in a host country where they operate (Xu & Meyer, 2013). These changes in the institutional framework take place because governments develop pro-market reforms to reduce market imperfections and to attract investment and innovation to their countries, with the consequent increase in competition. As Dau (2012) explains, pro-market reforms lead to economic liberalization and national governance improvements.

Economic liberalization implies that governments try to reduce their intervention in the market, becoming a facilitator instead of an active participant. Nevertheless, it has been noticed that the value of firms tends to decrease as market-supporting institutions rapidly evolve

towards a market economy because of the costs associated with the adaptation to the new environment. As the government eliminates its role in establishing production and sales goals, subsidiaries must quickly learn to implement production objectives, to establish prices that maximize profits and to seek new customers (Hurt, Hurt-Warski, & Roux-Dufort, 2000). Given the relative absence of capacities associated with the new institutional environment, subsidiaries often have difficulties to predict demand evolution and to allocate the necessary resources to satisfy it (Illner, 1998; Xu & Meyer, 2013). When these pro-market reforms take place rapidly, firms may have difficulties to adjust to institutional changes. Subsidiaries need to find new customers and suppliers immediately and they have not time to study the effects of the new institutional situation as change occurs (Hurt et al., 2000). Moreover, subsidiaries have problems to preserve their location-based advantages and they need to generate capabilities to adapt to the new landscape that require a more competitive position (McMillan & Woodruff, 2002; Witt & Lewin, 2007). The uncertainty and volatility associated with rapid pro-market reforms makes difficult for subsidiaries to accurately predict the key parameters of their strategic decision-making process in order to counteract the new competitive environment (Park et al., 2006; Xu & Meyer, 2013). This deficiency of adaptation will require investing resources to develop new capabilities which will negatively affect subsidiary performance.

Also, pro-market reforms entail improvements on national governance. The authorities of the country develop institutions to impose rules and regulate the behavior of market participants (North, 1990). An improvement of market-supporting institutions aligns rules and regulations with market principles, allowing rule-based

transactions to replace transactions based on relationships (Peng, 2003). As a result, subsidiaries can access market spaces previously regulated by the state or monopolized by firms affiliated with the state. The existence of restrictive rules in underdeveloped institutionally markets inhibits competition and innovation by discouraging people with ideas to develop new products and processes, as well as to enter the market and challenge established firms (Djankov et al., 2002). By reducing entry restrictions and improving property right protection, institutional reforms can contribute to greater competition and innovation (Chari & Banalieva, 2015). Rapid reforms in market-supporting institutions quickly eliminate transactional barriers in the economy, which suddenly opens up more market space for firms (Chen et al., 2017). In addition, high-speed market-supporting institutions reforms will promote the presence of technological innovations that shorten the life cycles of products, so products become obsolete which increase costs for firms (Lieberman & Montgomery, 1988). In contrast, a gradual change on market-supporting institutions will allow subsidiaries to adapt with minimum stress (Godoy & Stiglitz, 2007). Old and new products can coexist at different prices, offering companies a wider range of market opportunities (Lawless y Anderson, 1996). Subsidiaries can better adapt to gradual changes, observe new competitors and provide answers to competitive pressures.

Therefore, a rapid change of market-supporting institutions will reduce subsidiary performance because of the complexity to adapt to a sudden institutional change that will be translated into an increase of competition, a reduction of prices and the introduction of new products and innovations in the market in a short period of time. It will offer consumers greater choice options and, therefore, weaken the demand of

the subsidiaries. In the same way, performance will be reduced because the subsidiary will have to devote part of its resources to generate new capabilities in such a short period of time. From here, our first hypothesis is derived:

> ***Hypothesis 1:*** *A high speed of institutional change in the host country negatively affects subsidiary performance.*

4.3.2. MNEs with origin in emerging environments

During the last years, there has been an increase in the number of MNEs that come from emerging countries (emerging multinationals or EMNEs). These companies are accustomed to develop their activities in a context with underdeveloped capital and labor markets, weak legal infrastructure, insufficient protection of property rights and weak judiciary systems to enforce contracts (Contractor et al., 2014; Guillén & García-Canal, 2009; Meyer et al., 2009). These MNEs have emerged at a time of market globalization in which, despite the local differences that still exist, the global scope and the global scale are crucial. The MNEs have responded to this challenge by undertaking an accelerated international strategy based on external growth aimed at increasing their scope and exploiting their capabilities both in emerging and in developed countries.

Pro-market reforms, that have taken place worldwide, have been especially intense during the last decades in many emerging markets (Banalieva et al., 2015). Recent studies have shown that EMNEs possess specific capabilities that allow them to better adapt to turbulent environments compared to multinationals from advanced economies (De Beule, Elia, & Piscitello, 2014; Guillén & García-Canal, 2009). The main reason is that they have acquired a valuable institutional learning

in their home country that can be used in the internationalization process to compete in changing environments. What would be, a priori, a source of competitive disadvantage (having an origin in a country with underdeveloped market-supporting institutions) becomes an advantage when EMNEs move to other countries with similar institutional environments (Cuervo-Cazurra & Genc, 2008). If experience provides firms a competitive advantage in the management of institutional changes, we should expect a greater importance of this institutional learning to counteract institutional changes in the most turbulent environments (Henisz & Delios, 2000).

To be competitive in their home countries, EMNEs have had to develop capabilities to adapt to weak market-supporting institutions and to deal with pro-market reforms that many emerging economies have experienced in the last decades. As a consequence of the learning developed in their home countries, EMNEs can better identify the intentions of governments in host markets when they try to improve market-supporting institutions and will react quicker than other less experienced firms (Henisz & Delios, 2000). As result, subsidiaries from EMNEs can apply better strategies to face institutional changes, such as developing the capacity to integrate into the local market with the intention of obtaining information about local consumers and suppliers. These skills can provide EMNEs an institutional competitive advantage when they expand to other countries in comparison to subsidiaries from MNEs with origin in advanced economies (De Beule et al., 2014).

As we had previously seen, the success of MNEs is influenced by the availability of intangible assets that can be transferred and shared among subsidiaries (Caves, 1996; Dunning, 1988). We will expect that subsidiaries that are controlled by EMNEs can benefit from scale and

scope economies when rapid institutional changes take place due to their experience in turbulent environments. These firms will have the capacity to react to institutional changes faster, so they will not suffer the high costs associated with the adaptation process, and therefore, they will have a less negative effect on their performance. Therefore, we propose that:

> ***Hypothesis 2:*** *The origin of the parent MNE in an emerging country positively moderates the relationship between the speed of institutional change in the host country and subsidiary performance.*

4.3.3. MNEs with origin in highly competitive environments

Previous research has shown that experience is a key element that may allow firms to obtain competitive advantages. Subsidiaries can benefit from resources and capabilities that parent MNEs have generated in their home countries (Tallman & Yip, 2009; Johanson & Vahlne, 1977; Shaver, Mitchell & Yeung, 1997). Among these capabilities, the literature has paid special attention to competitive learning, that arises as a consequence of the experience derived from exposure to high levels of competition in the home country (Cuervo-Cazurra et al, 2018). MNEs that face intense competition in their home countries both, from domestic firms and from foreign competitors, are used to cope with more demanding customers, whose preferences will be more sophisticated over time. As a result of this experience, MNEs learn to adapt more rapidly to changes in consumer preferences or to the appearance of new competitors and products that threat their profitability. When this experience is transferred to host markets, MNEs can be in an advantageous position compared to other competitors. This experience in highly competitive environments is especially valuable

when the institutional change that takes place in the host country results in a rapid increase of competition.

As we have seen, when a rapid change in market-supporting institutions takes place, it is important for firms to emphasize efficiency, flexibility and rapid adaptation (McMillan & Woodruff, 2002). Firms must be able to quickly develop and manufacture new products or services that satisfy the demand of new preferences and market niches. Firms have to adapt quickly to operate efficiently in highly competitive environments (McMillan & Woodruff, 2002). MNEs that come from highly competitive markets (the goal to achieve with pro-market reforms), have previously faced the entry of new competitors, products and services and have developed skills and abilities to adapting and answering faster to increasing competitive pressures. Thus, we posit that those subsidiaries of MNEs with origin in highly competitive environments can benefit from the experience of the parent company in order to better adapt to the rapid pro-market reforms that increase competition in the host market, which confer them an institutional competitive advantage. Therefore, we propose that:

> ***Hypothesis 3:*** *The origin of the parent MNE in a highly competitive market positively moderates the relationship between the speed of institutional change in the host country and subsidiary performance.*

4.4. SAMPLE AND VARIABLES

4.4.1. The mobile telecommunications industry

The empirical analysis is carried out in the mobile telecommunications industry. Our data come from the GSMA Intelligence Database (2018). GSMA Intelligence is a source of mobile

operator data, analysis and forecasts. With over 26 million individual data points (updated daily), the service provides coverage of the performance of more than 1,400 operators and 1,200 MVNOs (mobile virtual network operator) across more than 4,400 networks, 80 groups and 237 countries and territories worldwide (GSMA Intelligence, 2018). With data retrieved from this dataset, we have built a panel of 4,397 observations that correspond to the yearly performance obtained by 352 subsidiaries[20] (our unit of analysis) in 144 host countries from 2001 to 2017. These subsidiaries belong to 74 MNEs from 45 home countries.[21] The dataset also provides information about several variables regarding the subsidiary, such as age and size, in order to complement the analysis.

This industry is especially suitable for our research for several reasons. First, mobile telecommunications industry has undergone an exponential internationalization process during the last decades, where MNEs have become the key players of the industry. Moreover, these MNEs carry out their activity through five continents which favors our research proposes since it allow us a high institutional variability across host countries where subsidiaries compete.

Second, it is true that internationalization in the industry started with FDI by MNEs from advanced economies (e.g. Deutsche Telekom from Germany, Orange from France, Telefónica from Spain, or Vodafone from the United Kingdom); however, during the last twenty years, MNEs from emerging countries have gained leading positions in the industry (e.g. América Móvil from Mexico, Bharti Airtel from India,

[20] We identify the subsidiaries that have been controlled by MNEs with at least 10% of ownership in each period. The International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD) have considered the existence of FDI when MNEs own at least 10 per cent of the subsidiary's equity.

[21] See the Appendix and the Table 4.2 for a detailed list of the different home and host countries included in the sample, respectively.

or Zain from Kuwait). As a consequence, the 74 MNEs included in our sample come from 45 home countries, 51% emerging countries and 49% advanced countries. This distribution of home countries is adequate to testing to what extent the origin in emerging countries could be a source of institutional learning to counteract the speed of pro-market reforms on the performance of the subsidiary.

Finally, as competition takes place at national level, these geographical boundaries allows to better delimitate the scope of competition in a market. As the number of competitors in every country is usually limited, it is possible to quantify the number of direct rivals and their market shares. Moreover, the degree of rivalry is heterogeneous across countries which allows to test to what extent the origin of MNEs in countries with high levels of competition could be a source of competitive learning to better adapt to pro-market reforms.

4.4.2. Dependent Variable

The main objective in this paper is to analyze the effect of the speed of institutional change in the performance of the subsidiaries and the influence that institutional advantages developed by MNEs can have in this relationship. Following previous studies (Domínguez, Garrido, & Orcos, 2016; Jakopin & Klein, 2012; Sung, 2014), we use the EBITDA margin as a measure of *subsidiary performance*[22]. The EBITDA margin is a ratio where the numerator is the total EBITDA obtained by the subsidiary (total operating profit in the period before interest, tax,

[22] We limit the extreme values at 10% to reduce the effect of possibly outliers (Barnett and Lewis, 1994).

depreciation and amortization) and the denominator is the total revenue.

4.4.3. Independent Variables

Following previous studies, we proxy market-supporting institutions through the Economic Freedom index developed by the Heritage Foundation (Fuentelsaz et al., 2015; Meyer et al., 2009). The Economic Freedom index documents the positive relationship between economic freedom and a variety of positive social and economic goals. The index measures economic freedom based on 12 factors, grouped into four categories or broad pillars of economic freedom such as rule of law, government size, regulatory efficiency and open markets. Each of the twelve items is measured on a scale from 0 to 100 (total freedom). Following Meyer et al. (2009), we have calculated the mean value of the five categories that most closely reflect the efficiency of markets and that have previously served to operationalize market-supporting institutions: *business freedom, trade freedom, property rights, investment freedom* and *financial freedom* (Meyer et al., 2009). In this way, we measure the extent to which institutions in a market support economic exchanges by ensuring capital and information flows, the protection of property rights and the entry of new participants into a market (Fuentelsaz, et al., 2015).

To calculate the *speed of institutional change*, we follow the measure proposed by Banalieva et al. (2015) that has been used for similar purposes (Chen et al, 2017). The speed of institutional change captures the distance between the scope of market-supporting institutions on the initial period and the current scope (distance travelled), as well as the time each country takes to achieve the new scope (time duration)

(Heybey & Murrell, 1999). According to Banalieva et al. (2015), the *speed of institutional change* in a country *i* and year *t* is calculated as follows:

$$Speed\ of\ Institutional\ Change_{i,t} = \frac{Actual\ \ Speed\ of\ Institutional\ Change_{i,t}}{Fastest\ Speed\ of\ Institutional\ Change_{i}}$$

The *Actual Speed of Institutional Change* in country *i* is defined as the difference between the scope of market-supporting institutions in the year *t* (t = 2001… 2017) and the scope of market-supporting institutions in the base year (2000)[23] divided by the number of years elapsed.[24] The *Fastest Speed of Institutional Change* captures the maximum institutional change in a country, which is obtained as the difference between the maximum scope of market-supporting institutions (100 in our case, because the Economic Freedom index ranges between 0 and 100) minus the scope of market-supporting institutions for each country in the base year. Accordingly, a higher value of the variable indicates a faster speed of institutional change (Banalieva et al., 2015; Chen et al., 2017).

Emerging Origin. We employ a dummy variable to measure the emerging origin of the MNE that has control over the subsidiary. First, we identify subsidiaries that are controlled for a MNE with at least 10%

[23] There are countries included in the sample for which the economic freedom index does not report data until 2004 or 2009, so we have taken those years as the base year for these exceptions. In the rest of cases, 2000 is the base year.

[24] For example, to calculate the *Actual Speed of Institutional Change* in Austria in 2007, we take the scope of market-supporting institutions during 2007, which reports a value of 79.66. We subtract to this value the scope of market-supporting institutions for the base year, in our case the year 2000, which takes a value of 76.66. Finally, we divide this difference (3.06) between the years that have elapsed since the base year and the year that is being calculated (7). Therefore, we have that the actual speed of institutional change is 0.437.

of ownership in period *t*.[25] Second, we identify if the home country of the MNE is classified as an emerging country. Following previous studies, we use the official classification of the IMF to classify countries as advanced or emerging (De Beule et al., 2014). Therefore, if in period *t* the subsidiary is controlled by a MNE and the home country of this MNE is an emerging country, this dummy takes value 1 and 0 otherwise.

Competitive Origin. In the same way, we employ a dummy variable to measure the origin in a highly competitive market of the parent MNEs. We consider that the home market of the MNE is highly competitive in period t when its Herfindahl Index is below the average of the Herfindahl Index in the sample in a given year, minus one standard deviation (mean – s.d.). Therefore, if a subsidiary in period t is controlled by a MNE at least at 10% and the home country is classify as highly competitive in that period, this measure takes value 1, and 0 otherwise.

4.4.4. Control Variables

First, we control for subsidiary-level influences on performance. Older firms may be more profitable as they are more established in the market and can obtain first-mover advantages (Lieberman & Montgomery, 1988). Thus, similarly to previous studies, we control for *subsidiary age* through the number of quarters since foundation (Banalieva et al., 2018). Moreover, *subsidiary size* generally has a positive effect of performance because large firms can have a more favorable access to capital and more efficient resources and can enjoy higher efficiency due to scale economies (Park et al., 2006). We measure

[25] If two or more MNEs have control over the firm in the same period, we consider that the MNE with higher ownership level has the control, and therefore, we use the characteristics of the home country of this MNE.

subsidiary size by the number of millions of connections of each operator.[26]

Second, we include country-level control variables. Similar to previous studies (Banalieva et al, 2015, Banalieva et al., 2018), we control for the *scope of market-supporting institutions*. This variable is calculated as the average of the five dimensions of the Economic Freedom index for country *i* in period *t*. As a country has stronger market-supporting institutions, we can expect a higher level of competition and lower performance. As a larger market may give more opportunities to subsidiaries, we control by *population* (in millions of habitants) and *GDP* (in thousands of millions of euros). Moreover, when a technological change happens, industry leaders may see their first-mover advantages weakened and new market segments emerge with new opportunities to generate profits. So, we control for the existence of a *technological change* in the market through a dummy variable that takes value 1 since the period that the 3G technology appears in the market, and 0 in the previous years. Also, we include the *number of firms* that compete in the market because we expected that more competitive markets show a lower performance (Gómez & Maícas, 2011). Moreover, given that the increase in demand can induce the entry of new competitors in the market, affecting the performance of the subsidiary, we control for *demand growth* (Park, et al., 2006). Finally, the model includes *regional* and *year dummies* to control for regional and time-specific influences, respectively.

[26] Connections refer to the number of SIM cards (or phone numbers, where SIM cards are not used), excluding cellular M2M, that have been registered on the mobile network at the end of the period (GSMA Intelligence, 2018).

Since the effects of independent variables on performance may not necessarily materialize immediately, we consider one year lag between EBITDA margin and the independent and control variables (Wan & Hoskisson, 2003; Lu & Beamish, 2004; Kim, et al., 2010).

4.4.5. Descriptive analysis

As the paper focuses on the speed of institutional change, with a special attention on pro-market reforms, we find important to determine to what extent this type of pro-market reforms have taken place in our sample. For this reason, Tables 4.1 and 4.2 show the evolution of market-supporting institutions, while Table 4.3 and Table 4.4 show the descriptive statistics and correlations for all the variables included in our analysis.

Table 4.1. Evolution of market-supporting institutions (2000 to 2017)

	2000	2017	Increase
Total Countries	56.4	61.1	▲
Advanced Countries	75.9	80.7	▲
Emerging Countries	50.9	55.1	▲

Table 4.1 present the average value of the five dimensions of the Economic Freedom index in 2000 and 2017 for the whole sample. We can observe that, on average, market-supporting institutions have been improved in all countries during this 18-year period. In addition, the table shows the same comparison by focusing only on emerging and advanced countries. We conduct this analysis because previous studies have mainly focused on emerging economies in order to analyze the effect of institutional changes and the speed of institutional changes on firm performance (Banalieva et al., 2015; Banalieva et al., 2018; Chari & Banalieva, 2015; Cuervo-Cazurra & Dau, 2009). However, as we can

observe in the table, market-supporting institutions have increased in around 5 points for emerging and advanced countries. Although the advanced countries present stronger market-supporting institutions (as a consequence of earlier pro-market reforms), they are also subject to institutional changes of similar magnitude during the period of analysis. Therefore, we believe that it is necessary to include these countries in the sample to provide a more complete evidence of the influence of the speed of institutional changes on subsidiary performance.

Table 4.2 complements the descriptive analysis by offering a detailed comparison of the mean of the five dimensions of the Economic Freedom index by country in the base year and in 2017. We can observe that only 35 of the 144 countries in the sample show weaker market-supporting institutions in 2017 than in 2000, which indicates that 76% of countries show an increase in the level of market-supporting institutions. With regard to the countries that weaken their market-supporting institutions, this decrease is slightly small with only some exceptions (i.e. Argentina, Bolivia and Venezuela) where the deterioration of market-supporting institutions is pronounced because of the turbulent political conditions in recent years.

Table 4.3 shows the mean value and its standard deviation, as well as the minimum and maximum values of all the variables. It can be observed that, on average, the performance of the subsidiaries included in the sample is 0.20, with a standard deviation of 0.42, which reflects a high variability. It can also be observed that the average speed of institutional change is positive and reaches a value of 0.005. However, the speed of change that countries suffer shows a high variability, as indicated by the standard deviation of 0.04, as well as the maximum (0.37) and minimum (-0.34) values. Regarding the moderating variables,

the emerging and competitive origin, we observe that on average, there are more companies controlled by MNEs with emerging origin (0.42) than with highly competitive origin (0.21).

Table 4.2. Evolution of market-supporting institutions in host countries (2000 to 2017)

Advanced Host Countries											
Country	**2000**	**2017**		**Country**	**2000**	**2017**		**Country**	**2000**	**2017**	
Australia	79 .8	85 .4	▲	*Hong Kong*	92 .0	91 .7	▼	*Norway*	72 .2	79 .8	▲
Austria	76 .6	82 .0	▲	*Ireland*	78 .6	82 .6	▲	*Portugal*	67 .6	75 .3	▲
Belgium	75 .6	81 .5	▲	*Israel*	75 .6	75 .0	▼	*Singapore*	86 .6	89 .4	▲
Canada	74 .5	83 .7	▲	*Italy*	71 .6	73 .3	▲	*Slovakia*	58 .2	73 .2	▲
Cyprus	69 .9	72 .6	▲	*Japan*	71 .2	76 .9	▲	*Slovenia*	62 .7	72 .5	▲
Czech Republic	77 .4	76 .9	▼	*Latvia*	68 .2	74 .9	▲	*Spain*	71 .6	76 .0	▲
Denmark	78 .6	87 .5	▲	*Lithuania*	64 .2	75 .8	▲	*Sweden*	72 .6	86 .3	▲
Estonia	80 .0	83 .3	▲	*Luxembourg*	78 .8	83 .3	▲	*Switzerland*	80 .2	85 .7	▲
Finland	71 .6	86 .6	▲	*Macao*	*70**	73 .0	▲	*United Kingdom*	82 .6	88 .1	▲
France	63 .6	77 .0	▲	*Malta*	64 .2	72 .4	▲	*United States of America*	78 .7	80 .6	▲
Germany	71 .6	81 .3	▲	*Netherlands*	79 .6	84 .9	▲				
Greece	63 .6	61 .8	▼	*New Zealand*	86 .7	87 .1	▲				
Emerging Host Countries											
Country	**2000**	**2017**		**Country**	**2000**	**2017**		**Country**	**2000**	**2017**	
Albania	51 .6	72 .2	▲	*Guinea-Bissau*	23 .9	41 .1	▲	*Pakistan*	49 .6	52 .0	▲
Algeria	51 .9	45 .7	▼	*Guyana*	51 .2	52 .3	▲	*Panama*	69 .8	71 .7	▲
Angola	31 .0	44 .3	▲	*Haiti*	34 .4	40 .5	▲	*Papua New Guinea*	45 .6	47 .6	▲
Argentina	71 .4	51 .3	▼	*Honduras*	53 .6	61 .1	▲	*Paraguay*	62 .5	62 .4	▼
Armenia	60 .4	72 .8	▲	*Hungary*	71 .3	71 .2	▼	*Peru*	65 .6	70 .0	▲
Azerbaijan	40 .0	60 .3	▲	*India*	36 .9	52 .2	▲	*Philippines*	57 .9	61 .6	▲
Bahamas	65 .0	54 .9	▼	*Indonesia*	54 .2	54 .6	▲	*Poland*	67 .0	72 .1	▲
Bahrain	68 .5	74 .3	▲	*Iran*	27 .3	32 .3	▲	*Qatar*	52 .0	68 .2	▲
Bangladesh	36 .4	46 .4	▲	*Jamaica*	65 .4	68 .4	▲	*Romania*	55 .8	68 .4	▲
Belarus	40 .5	48 .6	▲	*Jordan*	68 .1	67 .2	▼	*Russian Federation*	47 .5	51 .5	▲
Benin	55 .8	57 .3	▲	*Kazakhstan*	42 .4	59 .8	▲	*Rwanda*	27 .0	58 .7	▲
Bolivia	64 .0	41 .1	▼	*Kenya*	57 .6	53 .5	▼	*Sao Tome and Principe*	*41 **	53 .9	▲
Bosnia and Herzegovina	35 .8	60 .0	▲	*Korea, North*	14 .0	7 .5	▼	*Saudi Arabia*	51 .8	60 .8	▲
Botswana	64 .2	69 .1	▲	*Kuwait*	66 .6	62 .1	▼	*Senegal*	54 .0	53 .6	▲

Brazil	54 .2	57 .1	▲	*Kyrgyzstan*	50 .0	62 .0	▲	*Serbia*	*52.8**	62 .2	▲
Bulgaria	55 .0	69 .2	▲	*Laos*	27 .2	46 .2	▲	*Seychelles*	*44.8**	57 .4	▲
Burkina Faso	52 .0	52 .8	▲	*Lesotho*	49 .2	54 .8	▲	*Sierra Leone*	38 .7	47 .3	▲
Cabo Verde	50 .0	62 .3	▲	*Liberia*	*33.8**	43 .4	▲	*South Africa*	63 .2	59 .4	▼
Cambodia	50 .6	52 .5	▲	*Macedonia*	*53.6**	70 .9	▲	*Sri Lanka*	58 .2	54 .1	▼
Cameroon	42 .6	45 .2	▲	*Madagascar*	44 .4	52 .2	▲	*Syria*	28 .0	*29.8**	▼
Chad	42 .0	42 .6	▲	*Malawi*	53 .4	51 .4	▼	*Tajikistan*	44 .0	48 .0	▲
Chile	73 .1	76 .4	▲	*Malaysia*	60 .8	73 .5	▲	*Tanzania*	48 .5	53 .0	▲
Colombia	64 .8	74 .5	▲	*Maldives*	*43.4**	47 .7	▲	*Thailand*	66 .6	62 .8	▼
Congo	34 .0	39 .8	▲	*Mali*	61 .0	51 .2	▼	*Timor-Leste*	*38**	44 .8	▲
Congo, Democratic Republic	26 .8	43 .0	▲	*Mauritania*	36 .0	47 .8	▲	*Trinidad and Tobago*	77 .4	62 .2	▼
Cote d'Ivoire	43 .8	60 .4	▲	*Mexico*	53 .6	67 .8	▲	*Tunisia*	55 .6	51 .8	▼
Croatia	50 .4	69 .2	▲	*Moldova*	59 .0	60 .1	▲	*Turkey*	71 .0	68 .0	▼
Dominican Republic	48 .6	60 .2	▲	*Montenegro*	*39.7**	67 .9	▲	*Turkmenistan*	30 .0	30 .5	▲
Ecuador	58 .4	47 .8	▼	*Morocco*	60 .2	69 .3	▲	*Uganda*	49 .0	52 .0	▲
Egypt	48 .0	53 .5	▲	*Mozambique*	46 .6	52 .2	▲	*Ukraine*	47 .0	48 .9	▲
El Salvador	78 .0	65 .8	▼	*Myanmar*	39 .8	37 .5	▼	*United Arab Emirates*	66 .4	68 .3	▲
Fiji	56 .0	60 .6	▲	*Namibia*	68 .2	62 .0	▼	*Uruguay*	70 .5	68 .1	▼
Gabon	52 .0	48 .7	▼	*Nepal*	42 .6	42 .0	▼	*Uzbekistan*	32 .0	37 .9	▲
Georgia	46 .8	74 .2	▲	*Nicaragua*	52 .2	57 .2	▲	*Venezuela*	57 .1	23 .4	▼
Ghana	53 .2	61 .3	▲	*Niger*	38 .6	46 .9	▲	*Yemen*	41 .2	*48.3**	
Guatemala	59 .4	61 .1	▲	*Nigeria*	46 .0	45 .3	▼	*Zambia*	62 .8	59 .9	▼
Guinea	51 .2	44 .5	▼	*Oman*	52 .2	67 .9	▲	***TOTAL***	**56 .4**	**61 .1**	▲

▲ We used this symbol when market-supporting institutions have increased their value at the end of the period, we employ ▼ when have decreased.

** In these cases, the value that appears in the table does not correspond to the years 2000 or 2017. This value corresponds with the first or last year for which we have the corresponding data for that country. In countries for which we do not have information for the year 2000, this first data of market-supporting institutions hasbeen taken as the base data for the calculations of the measure of speed of institutional change*

Table 4.3. Descriptive Statistics (N=4,397)

Variable	Mean	Std. Dev.	Min	Max
Subsidiary performance	0.20	0.42	-9.97	1
Speed of institutional change$_{t-1}$	0.003	0.04	-0.34	0.37
Emerging origin$_{t-1}$	0.42	0.49	0	1
Competitive origin$_{t-1}$	0.21	0.41	0	1
Subsidiary size$_{t-1}$	60.99	15.81	1	92.14
Subsidiary age$_{t-1}$	9.01	18.23	0	256.4
Scope of institutions$_{t-1}$	4.74	3.27	1	24
Market concentration$_{t-1}$	3,970	1,476	1,324	10,000
Demand growth$_{t-1}$	601.3	1,778	0.20	18,62
GDP$_{t-1}$	0.72	0.45	0	1
Technological change$_{t-1}$	0.23	0.91	-0.28	53.13
Population$_{t-1}$	16.59	1.62	11.43	21.01

Regarding the correlations between the different variables (see Table 4.4), there is a positive and significant correlation between the performance of the current year and the lagged performance, as well as a negative and significant correlation between the speed of institutional change and firm performance. The emerging and highly competitive origin of the MNEs are also significantly correlated with performance, positive and negatively, respectively. Regarding the control variables, only the population has a relatively high correlation with two variables, firm size and number of firms. It seems reasonable that in countries with larger population there is scope for a higher number of firms and firms with higher size. A VIF analysis has been done to verify possible multicollinearity problems among our variables, obtaining a value lower than 10, which demonstrate that multicollinearity problems are not important here (Neter, Wasserman & Kutner, 1990).

Table 4.4. Correlations (N=4,397)

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	***Subsidiary performance***	1.00												
2	***Subsidiary performance$_{t-1}$***	0.31*	1.00											
3	***Speed of institutional change$_{t-1}$***	-0.04*	0.00	1.00										
4	***Emerging origin$_{t-1}$***	0.03*	0.01	-0.16*	1.00									
5	***Competitive origin$_{t-1}$***	-0.09*	-0.02	-0.03*	0.04*	1.00								
6	***Subsidiary size$_{t-1}$***	0.12*	0.04*	-0.01	0.01	0.021	1.00							
7	***Subsidiary age$_{t-1}$***	0.18*	0.09*	0.02	0.07*	-0.079*	0.27*	1.00						
8	***Scope of Institutions$_{t-1}$***	0.01	0.02	0.39*	-0.45*	-0.045*	-0.06	0.07*	1.00					
9	***Market concentration$_{t-1}$***	-0.02	0.01	-0.04*	0.12*	-0.13*	-0.30*	-0.23*	-0.26*	1.00				
10	***GDP$_{t-1}$***	0.01	0.01	0.13*	-0.17*	0.071*	0.42*	0.05*	-0.25*	-0.27*	1.00			
11	***Technological change$_{t-1}$***	0.03*	0.01	0.12*	-0.04*	-0.025	0.20*	0.58*	0.21*	-0.29*	0.12*	1.00		
12	***Demand growth$_{t-1}$***	-0.01	-0.01	-0.06*	0.07*	0.006	-0.07*	-0.20*	-0.20*	0.17*	-0.05*	-0.19*	1.00	
13	***Population$_{t-1}$***	-0.02	-0.05*	-0.12*	0.02*	0.113*	0.56*	-0.01	-0.21*	-0.44*	0.40*	0.01	0.04*	1.00

4.5. RESULTS

Our dependent variable, *subsidiary performance*, may present inertia over time because current values may be conditioned by the performance of prior periods (as shown in Table 4.4). For this reason, we use a dynamic panel data analysis to control for potential endogeneity by including a lag of the dependent variable, *subsidiary performance$_{t-1}$*. In this context, prior research has shown that ordinary least squares (OLS) gives an estimation of coefficients that is biased. Similarly to other studies that have analyzed firm performance (Uotila et al., 2009; Fuentelsaz, Garrido & Maicas, 2015), we use the system generalized method of moments (GMM) as our estimation approach (Arellano & Bover 1995; Blundell & Bond 1998),

Before discussing our results, possible failed specifications of the models are verified through several tests that are presented at the bottom part of Table 4.5. First, the Hansen statistic of excessive identification restrictions is used to prove the absence of correlation between the instruments and the error term. The result of the test is statistically non-significant, with levels of significance between 0.10 and

0.25 (Roodman, 2009), and, therefore, there is no overidentification (the instruments are valid). Second, we use the statistics developed by Arellano and Bond (1991) to prove that the errors are uncorrelated. Using the Arellano-Bond family of estimators requires that the model's error terms be not second-order correlated (as evidenced by the lack of significance for the AR(2) test. Third, the Wald Chi tests are presented to measure the joint significance of the variables in the models. All of Wald's tests support the joint importance of the coefficients.

The results of our system GMM estimations (Models 1 to 5) are also provided in Table 4.5. Model 1 only considers the influence of the control variables in subsidiary performance. Model 2 introduces the effect that *speed of institutional change* has on the dependent variable to test Hypothesis 1. Model 3 introduces the variable *emerging origin* and the interaction effect with *speed of institutional change* that corresponds to the Hypothesis 2. Model 4 incorporates the direct effect of *competitive origin* in subsidiary performance and the interaction with the *speed of institutional change* that corresponds to the Hypothesis 3. Finally, Model 5 introduces both interaction effects. The F-tests are presented at the bottom of the table and show that Model 4 is the model that best fits our data; thus, we employ it to comment our results.

Models 1 to 5 show that the effect of control variables on *subsidiary performance* remains stable. The performance of the previous year (*subsidiary performance*$_{t-1}$) presents a positive and significant effect. *Subsidiary age* and *technological change* also have a positive and significant effect, showing that oldest firms show better performance and that in markets where technological changes take place, the opportunities to obtain higher results increase. Contrary, the *scope of institutions* present a negative and significant effect. Other variables such as, *market*

concentration GDP, *subsidiary size* or *demand growth* show non-significant relationships.

Hypothesis 1 states that the *speed of institutional change* negatively influences the subsidiary performance. Our results in Model 4 show that the higher the speed of change of market-supporting institutions, the lower the performance obtained by subsidiaries (β=-0.771; $p<0.01$). This supports Hypothesis 1, showing that subsidiaries tend to obtain lower performance when institutional changes take place in short periods of time.

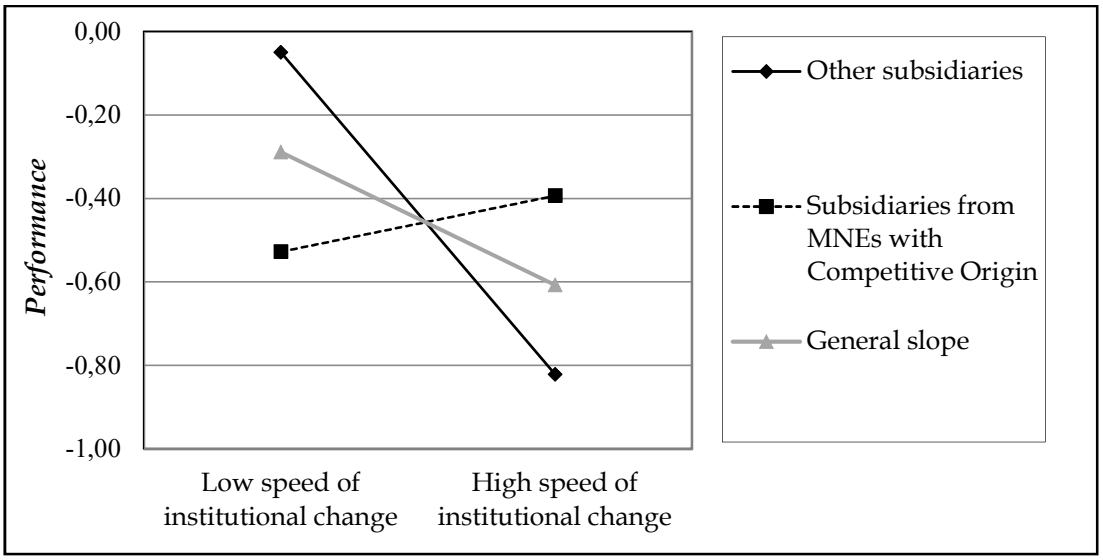
Not all subsidiaries will adapt to the institutional changes in the same way. We postulate that MNEs with origin in emerging countries are better prepared to adopt to changes and, therefore, their performance is not affected so negatively by the speed of institutional change. Nevertheless, our results do not find support for Hypothesis 2. It can be observed in Models 3 and 5 that the emerging origin variable shows a negative and non-significant coefficient for the interaction between the *speed of institutional change* and *the emerging origin* of MNEs that controlled firms. Contrary to our expectations, subsidiaries controlled by MNEs from emerging countries do not adapt better to the changes that occur in a short period. This suggest that MNEs from emerging countries find difficulties to generate or transfer skills derived from dealing with turbulent environments and weak institutions to their subsidiaries.

Table 4.5. Determinants of subsidiary performance

	Model 1	Model 2	Model 3	Model 4	Model 5
Subsidiary performance$_{t-1}$	0.418***	0.418***	0.421***	0.413***	0.416***
	(0.106)	(0.106)	(0.108)	(0.105)	(0.107)
Speed of institutional change$_{t-1}$		-0.399***	-0.153	-0.771***	-0.550**
		(0.146)	(0.176)	(0.248)	(0.223)
Emerging Origin			0.026		0.027
			(0.027)		(0.025)
*Speed of institutional change$_{t-1}$ * Emerging Origin*			-0.816		-0.751
			(0.506)		(0.523)
Competitive Origin				-0.054**	-0.055**
				(0.022)	(0.021)
*Speed of institutional change$_{t-1}$ * Competitive Origin*				1.542**	1.558**
				(0.608)	(0.609)
Subsidiary size$_{t-1}$	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Subsidiary age$_{t-1}$	0.005***	0.005***	0.005***	0.005***	0.005***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Scope of institutions$_{t-1}$	-0.004***	-0.003***	-0.003***	-0.003***	-0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Market concentration$_{t-1}$	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
GDP$_{t-1}$	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Technological change$_{t-1}$	0.340***	0.333***	0.336***	0.315***	0.318***
	(0.092)	(0.091)	(0.092)	(0.090)	(0.091)
Demand growth$_{t-1}$	0.017	0.017	0.017	0.018	0.018
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Population$_{t-1}$	0.010	0.010	0.011	0.008	0.009
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Dummy years	Yes***	Yes***	Yes***	Yes***	Yes***
Dummy region	Yes***	Yes***	Yes***	Yes***	Yes***
	(0.045)	(0.045)	(0.046)	(0.047)	(0.048)
_cons	-0.487**	-0.509**	-0.555**	-0.430*	-0.476*
	(0.237)	(0.236)	(0.258)	(0.239)	(0.259)
N	4397	4397	4397	4397	4397
F-Test vs Model 1		7.50***	10.98**	20.49***	29.25***
F-Test vs Model 2			2.94	18.61***	26.24***
F-Test vs Model 3					20.59***
F-Test vs Model 4					2.63
Wald Chi	494.54***	499.83***	515.76***	486.14***	493.67***
AR (2)	-0.88	-0.89	-0.89	-0.90	-0.90
Hansen Test	5.49	5.74	5.72	6.05	6.04

Standard errors in parentheses * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Figure 4.1. Moderating effect of the control by MNEs with competitive origin in the relationship between subsidiary's performance and the speed of institutional change



However, results from Model 4 support Hypothesis 3 since the interaction between the *speed of institutional change* and the *competitive origin* of MNEs is positive and significant (β=1.542; $p<0.05$), confirming that subsidiaries controlled by MNEs with origin in environments that are highly competitive enjoy institutional advantages compared to the rest of subsidiaries. A graphical illustration of this result is provided in Figure 4.1. As the figure shows, although the overall trend is negative, subsidiaries controlled by MNEs from highly competitive environments benefit more from rapid institutional changes compared to the rest of subsidiaries.

4.6. DISCUSSION AND CONCLUSIONS

This research seeks to advance in the incipient study of institutional dynamism. Specifically, this study analyzes the influence of the speed of change of market-supporting institutions in the subsidiary performance and the moderating effect of institutional advantages that subsidiaries can exploit. Drawing on the dynamic

institution-based view, we argue that when institutional changes take place in a short period of time, the level of competition suddenly increases, as well as the need to generate new capabilities to cope to the new institutional landscape. The quick increase in competition usually goes hand by hand with the introduction of new products and technologies, and a possible decrease of the market share, which will imply a deterioration of subsidiary performance. Similarly, the reorganization and new allocation of resources that is needed to generate the required skills to adapt to the new compete landscape will damage performance. Our results confirm that, in countries where the speed of change in market-supporting institutions is higher, subsidiaries obtain worse performance than in countries where the pace of change is slower.

Nevertheless, subsidiaries may have developed institutional advantages that allow them to better adapt to the new compete landscape because of the MNEs' home country learning, at least under certain circumstances. Our results show that not all subsidiaries adapt equally to changes that take place in short periods of time. Subsidiaries that are controlled by MNEs with origin in highly competitive environments will benefit from the institutional advantages that these MNEs have developed. These companies will have the capacity to better adapt to the increase of competition or to the development of new technologies, that are usually consequence of pro-market reforms. As MNEs from highly competitive environments have previously faced pro-market reforms, they have the experience to counteract the competitive threats derived from rapid institutional changes in their host markets. However, contrary to our expectations, subsidiaries controlled by MNEs from emerging countries will not

enjoy institutional advantages. A possible explanation for this unexpected result may be that MNEs from emerging countries are currently developing institutional learning and it takes time to process it. Therefore, they have not yet had time to internalize it. Although the literature has theorized that emerging MNEs obtain institutional advantages compared to MNEs from advanced economies when they operate in countries with poor market-supporting institutions (Martin, 2014), it is possible that some of the MNEs included in the sample are still developing those institutional advantages. The lack of time to internalize the institutional learning by the MNE can make it still being developed and the subsidiaries have not been able to benefit from it. So, we can conclude that institutional learning seems to need more time to be internalized by parent MNEs and transferred to their subsidiaries and, therefore, is not currently enjoyed.

From a theoretical point of view, the main contribution of this research has been the integration of the home country learning literature in the literature of institutional dynamism. In this way, we try to respond to the call of Cuervo-Cazurra et al. (2019), to deepen in the analysis of the dynamic institution-based view, focusing on the analysis of the subsidiary performance. In addition, we respond to the need to give more relevance to the home country in the international business research, demonstrating how some subsidiaries benefit from institutional advantages.

Our study has several implications from a public and managerial point of view. Governments, regardless of their current scope of market-supporting institutions, must consider the negative influence that rapid changes in market-supporting institutions have in the

performance of the subsidiaries. A slower variation of the institutional level will lead to better possibilities of adaptation and building capacities and, therefore, the subsidiary performance would not be harmed. It creates a more attractive institutional environment for foreign investors. In addition, other subsidiaries should try to develop institutional competitive advantages that benefit them in case of rapid institutional changes. In this sense, if there is no option to develop their own institutional advantages, they will have to assess the possibility of give control in favor of a MNE that enjoys institutional advantages from their origin in a high competitive market. It will allow it to better adapt to institutional changes from rapid pro-market reforms.

Our study is not without limitations that open new research avenues. First, although this research has been developed in the mobile telecommunications industry, it would be interesting to extent the empirical analyses to other industries. Because of mobile telecommunications industry has suffer from a deregulation and liberalization when pro-market reforms have taken place, it would be interesting focus the future research in unregulated industries. Second, we have considered the experience of MNEs that derives from home country learning. However, this may not be the only experience that can benefit subsidiaries when rapid institutional change takes place. It is possible that the accumulated experience of the subsidiaries (if they have been previously controlled by other MNEs) can also benefit them in this process. More studies are necessary at this point. Finally, the effective transfer of knowledge from the parent company to subsidiaries can even depend on the mechanism that has been used in their international expansion (e.g.

greenfield vs. acquisition). For this reason, it would be interesting to analyze to what extent the institutional advantage of subsidiaries to counteract rapid institutional changes can depend on the entry mode that their multinational has selected. In this way, future research would be able to integrate decision and performance considerations from the dynamic institution-based view.

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APPENDIX. Home Countries included in the empirical analysis

Home Countries (45)			
Advanced		**Emerging**	
Australia	*Japan*	*Argentina*	*Malaysia*
Austria	*Luxemburg*	*Bahrein*	*Mexico*
Belgium	*Netherlands*	*Brazil*	*Morocco*
Czech Republic	*Norway*	*Chile*	*Qatar*
Denmark	*Portugal*	*Croatia*	*Russian Federation*
Finland	*Singapore*	*Egypt*	*Saudi Arabia*
France	*Slovenia*	*Fiji*	*Senegal*
Germany	*Spain*	*Hungary*	*Serbia*
Greece	*Sweden*	*India*	*South Africa*
Hong Kong	*USA*	*Iraq*	*Turkey*
Italy	*United Kingdom*	*Jamaica*	*United Arab Emirates*
		Kuwait	

CHAPTER 5

RESUMEN Y CONCLUSIONES

(SPANISH SUMMARY OF THE DOCTORAL THESIS)

El artículo 18 del Acuerdo de 20 de diciembre de 2013, del Consejo de Gobierno de la Universidad de Zaragoza exige que, en caso de optar a la mención de "Doctor internacional", parte de la tesis doctoral sea redactada en una de las lenguas habituales para la comunicación científica en su campo de conocimiento, distinta a cualquiera de las lenguas oficiales en España.

Por este motivo, los capítulos 1, 2, 3 y 4, que incluyen los capítulos principales de la tesis doctoral, han sido redactados en inglés. La normativa impone, asimismo, la necesidad de incluir un resumen y conclusiones en castellano cuando la mayor parte de la tesis haya sido elaborada en inglés. En cumplimiento de la normativa aplicable, el Capítulo 5 de esta tesis doctoral incluye un resumen y conclusiones en castellano.

5.1. RESUMEN DE LA TESIS DOCTORAL

El propósito de este capítulo es ofrecer una síntesis de la tesis doctoral, a la par que dar cuenta de sus principales conclusiones e implicaciones. Como se ha descrito en los capítulos anteriores, la tesis analiza la toma de decisiones de las multinacionales en las adquisiciones transfronterizas, así como del resultado de las subsidiarias, en un entorno cada vez más cambiante.

La tesis se compone de cuatro capítulos, además de este resumen. El primero de ellos, *Capítulo 1*, tiene un propósito introductorio y su objetivo es contextualizar y presentar los diferentes objetivos de investigación, así como identificar las principales teorías empleadas y caracterizar la industria donde se va a llevar a cabo. Los tres capítulos restantes, *Capítulos 2, 3 y 4*, son los encargados de desarrollar los diferentes estudios empíricos que dan respuesta a los objetivos de investigación propuestos. Por un lado, en los *Capítulos 2 y 3* se analizarán diferentes determinantes en las decisiones sobre el

nivel de propiedad de adquisiciones transfronterizas, mientras que el *Capítulo 4*, tratará de explicar la influencia que la velocidad del cambio institucional tiene sobre el resultado de las subsidiarias y el importante papel que tiene para las empresas multinacionales (EMNs) el aprendizaje adquirido en el país de origen.

5.1.1. Resumen del Capítulo 1

El **Capítulo 1** constituye la introducción de la presente tesis doctoral. Las EMNs se han convertido en un actor fundamental de la economía global, aumentando significativamente su presencia en salidas de inversión extranjera directa (UNCTAD, 2018). Este evento ha atraído la atención de un gran número de investigadores a lo largo de los años (Dunning, 2001; Kim y Hwang, 1992; Ramamurti, 2004; Rugman, 2005) que han intentado analizar tanto el comportamiento estratégico durante los procesos de internacionalización (Arregle, Miller, Hitt y Beamish, 2013; Delios y Beamish, 1999), como el desempeño obtenido por las EMNs y sus subsidiarias (Chan, Isobe y Makino, 2008; Geringer, Beamish y DaCosta, 1989). Sin embargo, sigue habiendo cuestiones sin resolver en la literatura que han tratado de ser abordadas en nuestro estudio.

A lo largo del capítulo introductorio se presenta el contexto teórico y empírico en el que se asienta la tesis doctoral. Con el fin de abordar el estudio de la estrategia seguida por las multinacionales, así como del resultado de las subsidiarias, los tres capítulos centrales de esta tesis doctoral hacen uso de las literatura sobre estructura óptima de propiedad, ventajas del pionero, teoría dinámica institucional y el aprendizaje en el país de origen, Gracias a ello, la tesis aporta nuevas explicaciones y evidencias a ciertas cuestiones que continúan siendo

debatidas en la literatura y ayuda a mejorar nuestro conocimiento sobre este tópico. La industria mundial de las telecomunicaciones móviles es el contexto en el que las propuestas establecidas son testadas. La selección de esta industria viene justificada por su gran importancia, por su presencia a nivel mundial y por su adecuación a los objetivos de los trabajos de investigación incorporados en esta tesis.

5.1.2. Resumen Capítulo 2

El **Capítulo 2**, **"Ownership in Cross-Border Acquisitions and Entry Timing of the Target Firm"**, aborda el primero de los trabajos de investigación de la tesis. Dicha investigación analiza en qué medida una entrada más temprana por parte de la empresa objetivo influye en la decisión de las EMNs sobre las decisiones de adquisición de propiedad en las entradas en nuevos mercados. Nuestro a priori es que el orden de entrada puede influir tanto en el momento inicial de la adquisición como en el momento posterior de la misma.

Las adquisiciones transfronterizas han recibido gran atención por parte de la literatura como uno de los mecanismos clave de internacionalización en los últimos años (Bauer et al., 2018; Cuypers, Ertug y Hennart, 2015; Fuad y Gaur, 2019; Lahiri, Elango y Kundu, 2014; Powell y Rhee, 2016). Una de las decisiones más importantes que deben tomar las empresas cuando se enfrentan a una adquisición transfronteriza es el nivel de propiedad adquirido, ya que este tiene implicaciones en términos de control, riesgo, compromiso de recursos (Anderson y Gatignon, 1986) y supervivencia (Li, 1995). Para seleccionar el nivel adecuado de propiedad, las EMNs deben equilibrar los beneficios esperados y los costes derivados de los

diferentes niveles de propiedad (Chari y Chang, 2009), evaluando la contribución de la adquisición a la generación de ventajas competitivas, así como los riesgos que genera. Estos riesgos aumentan en contextos donde evaluar el valor potencial proporcionado por la adquisición es más complejo. A diferencia de las adquisiciones nacionales, las EMNs que se expanden mediante adquisiciones transfronterizas tienen que afrontar niveles más altos de incertidumbre, debido a posibles diferencias en las estructuras económicas, sociales, políticas y culturales respecto a sus países de origen (Shimizu, Hitt, Vaidyanath y Pisano, 2004). Esta incertidumbre deriva tanto *ex ante* como *ex post* (Chari y Chang, 2009). La incertidumbre *ex ante* está relacionada con las asimetrías de información entre la empresa adquirente y la adquirida y los problemas de selección adversa que de ella derivan, mientras que la incertidumbre *ex post* responde a problemas de riesgo moral y oportunismo relacionados con la actitud de los gerentes en las decisiones posteriores a la adquisición. Ambos tipos de incertidumbre dificultan que las EMNs evalúen adecuadamente el potencial de creación de valor en las adquisiciones transfronterizas y reducen los incentivos para adquirir altos niveles de propiedad en la empresa objetivo de la adquisición (Chari y Chang, 2009).

La identificación de factores que influyen en la incertidumbre que enfrentan los adquirentes ayuda a las EMNs a mejorar su proceso de toma de decisiones. Algunos estudios previos han identificado varios factores externos e internos que influyen en el porcentaje de propiedad adquirido por las EMNs (Xie, Reddy y Liang, 2017). Así, Malhotra y Gaur (2014) demuestran cómo la distancia geográfica influye tanto en la incertidumbre *ex ante* como *ex post*. De manera

similar, otros autores demuestran que la distancia ambiental favorece o disminuye este nivel de incertidumbre (Dow, Cuypers y Ertug, 2016; Liou, Chao y Yang, 2016). También se han considerado otros factores externos, como el riesgo del país (Chari y Chang, 2009), las presiones institucionales (Chan y Makino, 2007) o las influencias políticas (Pan et al., 2014). La literatura también ha analizado el papel de factores a nivel de EMN, como la experiencia internacional en diferentes entornos (Powell y Rhee, 2016) o la adopción del inglés como idioma externo para la presentación de informes en la empresa (Jeanjean et al., 2015). Sin embargo, estos estudios previos se han centrado principalmente en las características de los mercados de origen y de destino, así como en los atributos de la empresa adquirente, ignorando en el estudio uno de los agentes clave que también influye en el nivel de incertidumbre: la empresa objetivo. Excepto por un estudio (Chari y Chang, 2009), la influencia de las características de la empresa objetivo en la decisión sobre el nivel de propiedad adquirido no ha sido explorada previamente, lo que justifica un análisis más detallado de esta dimensión.

Las empresas objetivo poseen atributos que pueden afectar a la incertidumbre *ex ante* y *ex post* del proceso de adquisición y que, por lo tanto, influyen en los incentivos de las EMNs para adquirir un mayor o menor nivel de propiedad. En contextos en los que existen ventajas del pionero, los primeros entrantes obtienen un mejor rendimiento que los entrantes tardíos (Lieberman y Montgomery, 1988, 1998). El momento de entrada en el mercado de la empresa objetivo puede actuar como una señal del potencial futuro para ser rentable, reduciendo así la incertidumbre, por lo que conlleva una mayor predisposición por parte de las EMNs para adquirir niveles de

propiedad. Hasta ahora, este análisis del momento de entrada de la empresa objetivo apenas se había tenido en cuenta en el estudio de los niveles óptimos de propiedad en las adquisiciones transfronterizas.

Además, la literatura previa habitualmente ha adoptado un punto de vista estático, centrándose en la propiedad inicialmente adquirida por las EMNs. Por el contrario, nuestra primera investigación insiste en la importancia de considerar las adquisiciones transfronterizas como procesos dinámicos que comienzan con la selección de la empresa objetivo y la negociación del nivel inicial de capital a adquirir, y continúa con el período posterior a la adquisición, durante el cual la EMN debe integrar la nueva filial en su estructura organizativa (Shimizu et al., 2004). Después de la adquisición inicial, donde la incertidumbre *ex ante* y *ex post* pueden considerarse factores clave para determinar la propiedad inicialmente adquirida, la percepción por parte de las EMNs del potencial de la empresa objetivo para generar valor puede cambiar como consecuencia del aprendizaje. Por lo tanto, las EMNs pueden adaptar sus niveles de propiedad en función de la nueva información percibida. Por ejemplo, Inkpen y Beamish (1997) postulan que las adquisiciones de propiedad parcial generalmente se convierten en adquisiciones de propiedad total a medida que las EMNs obtienen un mejor conocimiento de las condiciones ambientales locales y disminuye la dependencia de los socios. De manera similar, otros estudios han mostrado que las empresas completan las adquisiciones de forma secuencial (Xu, Zhou y Phan, 2010). En este sentido, algunos estudios recientes han comenzado a analizar la posición cambiante de las EMNs al desarrollar adquisiciones transfronterizas en el compromiso de recursos, con el fin de gozar de una mayor flexibilidad estratégica

(Putzhammer, Puck y Linder, 2019).

Dado que las EMNs enfrentan niveles de incertidumbre inicial *ex ante* y *ex post*, prefieren ingresar mediante modos de entrada con bajo compromiso. Una vez que han adquirido experiencia e información del nuevo mercado y de sus socios, pueden decidir aumentar dicho compromiso (por ejemplo, establecer una subsidiaria de propiedad total), disminuirlo o incluso terminar la relación (Petersen, Welch y Welch, 2000). Aunque algunos estudios recientes han arrojado luz sobre este tema (Li y Li, 2010; Puck, Holtbrügge y Mohr, 2009; Putzhammer et al., 2018; Santangelo y Meyer, 2010; Swoboda, Olejnik y Morschett, 2011), hasta el momento no se ha considerado el papel del momento de entrada de la empresa objetivo como señal del rendimiento potencial que puede afectar a las variaciones de propiedad en el momento posterior a la entrada.

El ***objetivo*** de esta investigación es analizar el efecto del momento de entrada de la empresa objetivo en el nivel de propiedad adquirido por las EMNs cuando llevan a cabo una adquisición transfronteriza, integrando la literatura de nivel de propiedad con la literatura sobre ventajas del pionero a través de una perspectiva dinámica. Primero, proponemos que, a medida que aumenta el tiempo transcurrido entre la entrada del pionero y la de la empresa objetivo (el tiempo de anticipación) la propiedad inicialmente adquirida sobre el objetivo por parte de la EMN será menor. Segundo, con el objetivo de incorporar una perspectiva dinámica en el estudio, analizamos el efecto de dicho momento de entrada de la empresa objetivo en las variaciones del nivel de propiedad después de la adquisición inicial. Finalmente, dado que las ventajas del pionero se erosionan con la edad del mercado y con la introducción de nuevas

tecnologías (Gómez, Lanzolla y Maícas, 2016), esperamos que estos factores moderadores debiliten la relación entre el momento de entrada y la propiedad adquirida inicialmente, así como en las variaciones de propiedad que se producen posteriormente.

Nuestro análisis se lleva a cabo en la industria de las comunicaciones móviles. La muestra extraída de la GSMA Intelligence (2018), presenta la evolución trimestral en la estructura de propiedad de 59 filiales en las que participaron 36 EMN como resultado de 90 adquisiciones transfronterizas en 50 países durante el periodo 2000 a 2016. En consecuencia, tenemos un total de 90 observaciones de la propiedad inicial adquirida y 2.231 observaciones que se refieren a la propiedad de las EMN en cada una de las filiales para cada período posterior a la adquisición inicial. El análisis se lleva a cabo en dos etapas. Dadas las características de censura que presentan las variables independientes, nivel de propiedad adquirido y variación en el nivel de propiedad, para la primera etapa se emplea un modelo de regresión Tobit. Para la segunda etapa del estudio, que presenta estructura de datos de panel, se utiliza un modelo de regresión Tobit de efectos aleatorios.

Nuestros ***resultados*** muestran que, en contextos donde existen ventajas del pionero, las EMNs adquieren niveles más bajos de propiedad en aquellas empresas que ingresaron más tarde en el mercado. Cuanto mayor sea el tiempo transcurrido entre la entrada del pionero y la entrada de la empresa objeto de la adquisición, mayor será la incertidumbre para las EMNs, lo que conlleva una reducción en el nivel de propiedad inicialmente adquirido. Nuestros hallazgos, además, demuestran que las EMNs tienden a incrementar más sus niveles de propiedad después de la adquisición inicial en aquellas

subsidiaras que entraron más temprano en el mercado.

No obstante, la relación negativa entre el momento de entrada de la empresa objetivo y la propiedad no es independiente de las circunstancias. Nuestros análisis muestran que la introducción de nueva tecnología por parte de la empresa objetivo puede ayudar a reducir la incertidumbre sobre los entrantes tardíos, haciendo que los niveles de propiedad adquiridos sobre estos sean superiores tanto en el momento inicial como en el momento posterior a la adquisición. Sin embargo, encontramos que la edad del mercado sólo influye en el nivel de propiedad adquirido sobre los entrantes tardíos en el momento posterior a la adquisición y no resulta relevante en el momento inicial.

5.1.3. Resumen Capítulo 3

El **Capítulo 3**, "**Ownership in Cross-Border Acquisitions by Emerging Multinationals**", es el segundo estudio empírico de la tesis doctoral. Este trabajo analiza las diferentes estrategias de adquisición que siguen las EMNs en función del nivel institucional del país de destino, dándole un papel fundamental al aprendizaje institucional en el país de origen de la multinacional.

Como hemos mencionado previamente, cuando las EMNs entran en un nuevo país a través de una adquisición transfronteriza, una decisión clave es el porcentaje de propiedad que deben adquirir sobre la empresa objetivo (Chari y Chang, 2009). De acuerdo con la literatura previa, la elección de los niveles de propiedad adquirida está determinada por factores como el compromiso de recursos, el control esperado por la EMN sobre la empresa objetivo, o los riesgos

y el rendimiento de la adquisición (Anderson y Gatignon, 1986; Delios y Beamish, 1999). La teoría de costes de transacción sugiere tradicionalmente que la incertidumbre del entorno incrementa la dificultad del comprador extranjero para buscar, negociar y valorar a los socios en el mercado (Williamson, 1981).

Cuando se encuentran en contextos de mayor incertidumbre, las EMNs prefieren adquirir niveles de propiedad más bajos para gozar de flexibilidad que permita responder mejor a posibles cambios en el entorno (Yiu y Makino, 2002). Algunos estudios empíricos han abierto un debate sobre cómo varía la estrategia de propiedad de las EMNs dependiendo de si se expanden a países avanzados o emergentes, caracterizados por presentar diferentes niveles de incertidumbre (Liou, Chao y Yang, 2016). Los países emergentes se caracterizan por exhibir intermediarios financieros poco desarrollados y una regulación del mercado de valores débil, que aumenta la incertidumbre percibida para hacer negocios en estos países (Khanna y Palepu, 1997). Como resultado, las EMNs suelen adquirir un mayor porcentaje de propiedad cuando ingresan en países avanzados, donde el nivel de incertidumbre tiende a ser más bajo que en dichos países emergentes (Delios y Beamish, 1999; Yiu y Makino, 2002).

Algunos estudios previos se han centrado principalmente en analizar las condiciones institucionales de los países receptores como determinante de la incertidumbre. Sin embargo, las condiciones institucionales del país de origen también son relevantes a la hora de explicar la estrategia de propiedad en los procesos de adquisición transfronteriza (De Beule, Elia y Piscitello, 2014). Las investigaciones recientes sugieren que, cuando se expanden en el extranjero, las estrategias y el desempeño de las EMNs con origen en países

emergentes (EMNEs) son diferentes de las que utilizan las EMNs de países avanzados (EMNAs) (De Beule et al., 2014; Guillén y García-Canal, 2009). Las EMNEs se enfrentan a instituciones débiles y a un subdesarrollo económico en sus países de origen (Cuervo-Cazurra y Genc, 2008), por lo que se espera que manejen la incertidumbre mejor que las EMNA. Como consecuencia, la incertidumbre que perciben las EMNs en el país receptor dependerá del nivel de desarrollo de sus países de origen. Por lo tanto, las características del país anfitrión son relevantes para explicar las estrategias de propiedad de las EMNs, pero la inclusión de las características del país de origen también es necesaria para comprender completamente estas estrategias. A pesar de esto, según nuestro conocimiento, los estudios anteriores han subexplorado la interacción de las características de los países de destino y de los países de origen en la decisión de elección del nivel de propiedad y es por ello que esta investigación trata profundizar en esta línea.

Además de las características del país de origen y del país anfitrión, la estrategia de propiedad seguida por las EMNs puede estar condicionada por las características de la industria en la que también tienen lugar los procesos de adquisición transfronteriza. Los estudios previos han analizado las estrategias de internacionalización en diferentes contextos, tales como industrias intensivas en I + D (Chari y Chang, 2009; Prashantham y Birkinshaw, 2015; Qian, Li y Qian, 2018), la industria hotelera (Romero-Martínez et al., 2019) o la industria de los neumáticos (Rose e Ito, 2009). Nuestra investigación se centra en una industria regulada, la industria de las telecomunicaciones móviles, que tiene características especiales que la convierten en un contexto interesante donde analizar las estrategias

de propiedad seguidas por las EMNs.

Por ello, el ***objetivo*** de nuestro segundo estudio empírico es doble. Primero, analizar el porcentaje de propiedad adquirido por las EMNs cuando llevan a cabo procesos de adquisición transfronteriza en países emergentes o avanzados y, posteriormente, analizar en qué medida la estrategia de propiedad en los países emergentes difiere entre las EMNEs y las EMNAs.

El análisis empírico se realiza en el contexto de la industria de las comunicaciones móviles. La muestra incluye un total de 183 adquisiciones transfronterizas realizadas durante el periodo 2001-2016. Las 53 EMNs que llevaron a cabo estos procesos de adquisición provenían de 35 países de origen y se expandieron a 82 países. De estas 53 EMNs, prácticamente la mitad tenían su origen en países emergentes (26 EMNEs) mientras que el resto tenían su origen en países avanzados (27 EMNAs). Dada la naturaleza censurada de la variable dependiente, el nivel de propiedad adquirido, se emplea para el análisis un modelo de regresión Tobit.

Nuestros ***resultados*** muestran que, efectivamente, la naturaleza de los países de destino emergentes donde las instituciones son más débiles representa mayores niveles de incertidumbre para las EMNs y, por tanto, están dispuestas a adquirir menores niveles de propiedad cuando las adquisiciones transfronterizas se producen en estos países. No obstante, si las adquisiciones son llevadas a cabo por EMNEs, el aprendizaje institucional derivado de la experiencia les otorgará mayor confianza. Esto repercutirá en la adquisición de mayores niveles de propiedad en las adquisiciones transfronterizas llevadas a cabo en países emergentes frente a los niveles adquiridos por las

EMNAs.

5.1.4. Resumen Capítulo 4

El **Capítulo 4**, **"Speed of Institutional Change and Subsidiary Performance: The Impact of Home Country Learning"**, es el último de los estudios empíricos de esta tesis doctoral. Dicho trabajo profundiza en la importancia del aprendizaje de las EMNs en el país de origen cuando las subsidiarias se enfrentan a rápidos cambios institucionales.

El efecto que los cambios en las instituciones que apoyan el mercado (*market-supporting institutions*, Meyer et al., 2009: p. 63) tienen sobre el desempeño de la empresa ha sido ampliamente estudiado en la literatura (Chari y Banalieva, 2015; Cuervo-Cazurra y Dau, 2009; Dau, 2013; Park, Li y Tse, 2006). Sin embargo, hay una falta de consenso sobre el signo y la importancia de esta relación. Si bien algunos estudios sostienen que los cambios institucionales a favor del mercado (es decir, reformas pro-mercado) conducen a un mayor rendimiento (Cuervo-Cazurra y Dau, 2009; Park et al., 2006), otras investigaciones no logran encontrar tales efectos positivos o, incluso, encuentran una relación en forma de U (Chari y Banalieva, 2015; Lee, Peng y Lee, 2008; Salim, 2003). Probablemente, el principal motivo por el cual la evidencia previa no puede explicar de manera efectiva las consecuencias que las reformas a favor del mercado tienen en el resultado, sea la conceptualización estática del cambio institucional. Por ello, algunas investigaciones recientes han buscado una explicación más detallada que incorpore un enfoque dinámico (Banalieva, Eddleston y Zellweger, 2015).

Las reformas pro-mercado pueden llevarse a cabo gradualmente

durante largos períodos de tiempo o pueden desarrollarse rápidamente en períodos cortos (Chen et al., 2017). Como consecuencia, la investigación reciente ha prestado especial atención no solo al cambio institucional en sí, sino también a la velocidad a la que se produce este cambio, haciendo hincapié en la naturaleza dinámica de las condiciones institucionales (Kim, Kim y Hoskisson, 2010; Xu y Meyer, 2013). El ritmo al que evolucionan las instituciones a favor del mercado tiene importantes consecuencias en la estrategia de las empresas, ya que afecta a sus capacidades de respuesta (Kim et al., 2010) y a su desempeño (Banalieva, Cuervo-Cazurra y Sarathy, 2018; Banalieva et al., 2015) La visión dinámica de las instituciones surge como un flujo de investigación que trata de explicar la influencia que la velocidad de dichas reformas pro-mercado tiene en las decisiones de las empresas (como el modo de entrada, Chen et al., 2017; y el desempeño, Banalieva et al., 2015; Banalieva et al., 2018).

Además, los estudios anteriores han demostrado que las empresas son heterogéneas cuando interactúan con el entorno y no todas las empresas se adaptan a los cambios de la misma manera. Por ejemplo, existen diferencias entre empresas familiares y no familiares (Banalieva et al., 2015) o entre empresas con diferentes niveles de experiencia en el mercado (Chen et al., 2017). Sin embargo, se ha prestado poca atención a las ventajas institucionales que las EMNs pueden explotar y transferir a las subsidiarias para contrarrestar mejor los rápidos cambios institucionales en los países anfitriones donde operan. Estas ventajas institucionales provienen del proceso de aprendizaje que han experimentado en sus países de origen. En primer lugar, algunas EMNs pueden desarrollar ventajas competitivas institucionales porque provienen de países emergentes

donde enfrentan continuos cambios institucionales. El aprendizaje institucional puede ayudarles a comprenderlos y a adaptarse mejor a los rápidos cambios institucionales en los países anfitriones (Martin, 2014). En segundo lugar, la experiencia adquirida al enfrentar mayores niveles de competencia en el país de origen, es decir, el aprendizaje competitivo, genera nuevas capacidades en las EMNs para enfrentarse a situaciones altamente competitivas. Estas capacidades puede ser una fuente de ventaja institucional cuando se producen cambios institucionales rápidos que repercuten en un repentino crecimiento de la competencia (Cuervo-Cazurra, Luo, Ramamurti y Ang, 2018).

Dado que uno de los motivos de la internacionalización de las EMNs es explotar sus recursos y ventajas en los mercados de acogida, nuestra investigación propone que las filiales explotarán el aprendizaje en el país de origen (tanto institucional como competitivo) de su matriz para adaptarse mejor a las rápidas reformas a favor del mercado en el país anfitrión. Esto constituye una línea prometedora de investigación que no ha sido analizada previamente y nuestro objetivo es desarrollarla a lo largo del capítulo 4.

Como consecuencia, el ***objetivo*** de este último estudio es ampliar la literatura de las instituciones pro-mercado, analizando el papel que las ventajas institucionales derivadas del aprendizaje en el país de origen tienen sobre el resultado de las filiales bajo una visión dinámica basada en las instituciones. Aunque esperamos una relación negativa entre la velocidad de cambio en las instituciones (*market-supporting institutions*) y el resultado de las subsidiarias, no todas las empresas se adaptan a estos cambios de la misma manera (Banalieva et al., 2015). Proponemos que las filiales de EMNs con origen en países

altamente competitivos (donde las reformas pro-mercado se han implantado con éxito) y en países emergentes (donde las reformas pro-mercado se están llevando a cabo con mayor intensidad) pueden explotar sus ventajas institucionales para adaptarse mejor a los rápidos cambios institucionales.

El análisis empírico se lleva a cabo en la industria de las comunicaciones móviles. Nuestros datos provienen de la GSMA Intelligence (2018). Con los datos obtenidos de la base de datos, hemos construido un panel de 4.397 observaciones que corresponden al resultado anual de 352 subsidiarias (nuestra unidad de análisis) en 144 países de destino, pertenecientes a 77 EMNs, para el periodo comprendido entre 2001 y 2017.

Nuestros ***resultados*** muestran que, tal y como esperábamos, cuando los cambios en las instituciones que favorecen la actuación del mercado se producen en un corto periodo de tiempo, el resultado de las filiales se ve afectado negativamente. Sin embargo, no todas las filiales se ven perjudicadas de la misma manera. Nuestros hallazgos muestran que aquellas subsidiarias cuya matriz tiene origen en países altamente competitivos poseen ventajas competitivas institucionales que les permiten adaptarse mejor a los cambios rápidos y su resultado se ve menos afectado. Sin embargo, no encontramos apoyo para el supuesto de subsidiarias con matriz en países emergentes y, que a priori, podrían estar disfrutando igualmente de ventajas competitivas institucionales que las favorecieran en ese mismo entorno cambiante.

5.2. IMPLICACIONES PRÁCTICAS DE LA TESIS

La tesis doctoral presenta resultados interesantes que contribuyen de forma relevante a la literatura sobre el nivel de

propiedad en las adquisiciones, la visión dinámica de las instituciones y el aprendizaje en el país de origen de la multinacional. Más allá de las contribuciones a la literatura académica, los resultados de la tesis son relevantes para el mundo profesional. La tesis presenta importantes implicaciones prácticas que podrían dividirse en tres secciones: implicaciones para los gerentes de las EMNs, implicaciones para los gerentes de las empresas objetivo, e implicaciones para los poderes públicos e instituciones.

5.2.1. Implicaciones para los gerentes de las EMNs

Como se ha podido observar a lo largo de la tesis doctoral, una de las principales decisiones que los gerentes de las EMNs toman cuando llevan a cabo adquisiciones transfronterizas está relacionada con la elección del nivel de propiedad a adquirir. Esta decisión es compleja dado que el proceso de adquisición se encuentra rodeado de incertidumbre. Sin embargo, hemos podido comprobar que, efectivamente, existen determinados factores que pueden ayudar a los gerentes de las EMNs a evaluar dicha incertidumbre, con el fin de decidir qué nivel de flexibilidad es más adecuado para cada circunstancia.

Concretamente, tal y como se ha confirmado en el *Capítulo 2*, el momento de entrada de la empresa objetivo es un factor relevante para predecir la incertidumbre asociada a los procesos de adquisición transfronteriza y, por tanto, ayuda a reducir las asimetrías de información entre la empresa adquirente y la empresa objeto de la adquisición. En este sentido, observando el momento de entrada de la empresa objetivo, los directivos de la empresa adquirente pueden situarse en una mejor posición para evaluar los activos y las

capacidades de la empresa deseada y para tomar mejores decisiones de inversión. En primer lugar, la existencia de ventajas del pionero hará que una empresa objetivo que haya entrado en el mercado antes resulte más atractiva, los niveles de incertidumbre percibida por los directivos se reducirán y podrán adquirir mayores niveles de propiedad. Sin embargo, tendrán que considerar otras variables en su decisión, como son, el grado de desarrollo del mercado y el carácter innovador de la empresa objetivo. En los mercados maduros, donde las ventajas del pionero pueden estar erosionadas, invertir en un participante tardío no será tan arriesgado para la multinacional. De igual forma, el atractivo de la filial que entró más temprano al mercado también se reducirá si un participante tardío muestra un perfil innovador. Cuando la empresa objetivo introduce una innovación clave, puede llegar a reemplazar la tecnología que originó las ventajas de ser pionero y el momento de entrada de la futura filial se volverá menos importante en la decisión de propiedad.

Además, ingresar con niveles más bajos de propiedad permite a las EMNs obtener flexibilidad estratégica para revisar su posición de riesgo en el futuro y ajustar el nivel de propiedad de la subsidiaria. Por esta razón, es muy importante que las EMNs verifiquen la existencia de ventajas de ser pionero después de la adquisición de una nueva subsidiaria para adaptar el compromiso de recursos a la rentabilidad esperada que deriva de la existencia de estas ventajas.

Además, tal y como hemos comprobado en el *Capítulo 3*, los directivos tendrán que adaptar sus decisiones de inversión en función de si están pensando en establecerse en países emergentes o en países avanzados. Una adquisición en un país emergente llevará asociados mayores niveles de incertidumbre y, por tanto, en estos entornos las

inversiones deberán ser más flexibles. Es decir, deberán adquirir menores niveles de propiedad. También deberán tener en cuenta el nivel de aprendizaje institucional que hayan obtenido en su país de origen antes de desarrollar las estrategias para entrar en estos países emergentes. En este sentido, los gerentes de EMNs que sean originarias de países emergentes podrán asumir mayores inversiones sobre la empresa objetivo que aquellos que lideren empresas con origen en países avanzados.

5.2.2. Implicaciones para los gerentes de las empresas objetivo

Como se ha podido observar a lo largo del *Capítulo 3* de la tesis doctoral, tanto el nivel de desarrollo del país donde se ubica la empresa objetivo como el nivel de desarrollo del país del adquirente influirán sobre el porcentaje de propiedad que las EMNs van a adquirir. En este sentido, las empresas objetivo pueden anticipar qué empresas tienen mayores posibilidades de adquirir niveles superiores de capital en función de su localización. Cuando el operador móvil se encuentre en un país emergente, la probabilidad de ser mayoritariamente propiedad de un grupo móvil que proviene de un país emergente será mayor. En este sentido, podrán focalizar sus intereses en aquellas empresas para las que resulten más atractivos.

Por otro lado, como hemos visto a lo largo del *Capítulo 4*, las filiales extranjeras tendrán que hacer frente a cambios institucionales en los países en los que operan, que pueden ser más o menos rápidos. Tras el desarrollo del análisis, se ha demostrado que disponer de determinadas capacidades puede ayudar a las filiales a que ese cambio institucional no les afecte tan negativamente cuando se produzca de manera rápida. Por ello, las empresas subsidiarias

deberán buscar ventajas competitivas institucionales que les proporcionen una mejor adaptación a los cambios que les beneficien en caso de cambios institucionales rápidos. Si no tienen la opción de desarrollar sus propias ventajas institucionales, tendrán que evaluar la posibilidad de atraer a alguna EMN para ceder parte de su control y, así, poder optar a gozar de las ventajas institucionales que dichas empresas posean. Concretamente, deberán tratar de atraer la inversión de empresas cuyo origen sea el de un país altamente competitivo, lo que facilitará su adaptación a cambios institucionales que se deriven como consecuencia de reformas rápidas que favorezcan la actuación del mercado.

5.2.3. Implicaciones para los poderes públicos e instituciones

La importancia que las instituciones tienen dentro de la actividad empresarial ha sido ampliamente reconocida no solo dentro del ámbito académico, sino también por organismos como la OCDE. La importancia de las instituciones en la actividad de las empresas ha llevado a la literatura sobre estrategia empresarial a considerar que son el tercer pilar de la estrategia (Peng et al., 2009). Más concretamente, se ha reconocido que el nivel de desarrollo institucional del país de origen puede influir en el uso de diferentes estrategias por parte de las empresas (Hennart, 2012).

El *Capítulo 3* de la tesis doctoral refleja que el nivel institucional del país puede influir en el funcionamiento de los mercados e influye en el nivel de propiedad que las EMNs adquieren cuando realizan una adquisición transfronteriza. En este sentido, los gobiernos de los países emergentes interesados en atraer inversiones de las economías avanzadas deberían tratar de reducir los vacíos institucionales que

perciben los inversores extranjeros. Por ejemplo, los responsables políticos deberían tratar de mejorar el sistema de protección de los derechos de propiedad y promover mecanismos para facilitar la introducción de inversores extranjeros en la red comercial informal (por ejemplo, asociaciones comerciales y convenciones).

Además, una de las recomendaciones más frecuentes por parte de la literatura sobre dirección internacional y, en general, de la literatura económica, suele ser introducir mejoras en las instituciones. Se argumenta que unas instituciones que fomenten el libre mercado pueden favorecer el intercambio de recursos, ayudar a incrementar la competencia e inducir la aparición de innovaciones y de nuevos productos. Sin embargo, durante el *Capítulo 4* de esta tesis doctoral queda reflejado que, tan importante como un buen diseño institucional, es la velocidad a la que se implementan las reformas institucionales por parte de los gobiernos y los poderes públicos.

Los gobiernos, independientemente del grado institucional que deseen alcanzar (fundamentalmente en aquellas instituciones favorecen la actuación del mercado), deben considerar la influencia negativa que un cambio brusco en las instituciones puede tener en el resultado obtenido por filiales extranjeras. Un cambio institucional muy rápido repercute en la inversión inmediata de recursos para generar nuevas capacidades, así como en el repentino crecimiento de nuevos competidores. Por ello, una variación del nivel institucional a un ritmo más lento permitirá una mejor adaptación, así como la creación de capacidades, favoreciendo que el resultado de las subsidiarias no se vea perjudicado. En este sentido, si los gobiernos desean crear un entorno institucional más atractivo para los inversores extranjeros, deberán centrarse en fomentar reformas

institucionales suaves, que favorezcan la adaptación para las empresas subsidiarias.

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