

The survival of outward investments from China and India: Is there a North-South divide?

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Abstract

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Abstract

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Keywords: Outward investment; firm-specific advantages; North and South; emerging markets enterprises

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1. Introduction

Outward foreign direct investment (OFDI) from emerging markets, has witnessed a sharp increase in the last decade; more than one-third of global outward investment in 2019 was from emerging markets, up from 13 percent in 2007 (UNCTAD, 2007, 2020). Investments from China and India alone have increased from \$123 billion in 2007 to \$503 billion in 2019. The unprecedented growth in emerging market multinational corporations' (EMNCs) investments from China and India has prompted researchers to examine how these firms enter and subsequently survive in foreign markets (Gu, Yang, & Strange, 2018; Puthusserry, Khan, Knight, & Miller, 2020, Athreye, Saeed, & Baloch, 2021).

The survival of OFDI is as important as an entry into new locations for both managers and policy makers. Setting up a new subsidiary absorbs considerable financial and managerial resources and firms close down subsidiaries only when they feel they do not foresee future growth. Policy makers also look toward foreign investments as a means to increase employment and industrial growth and the divestment of subsidiaries can create problems for host economies, while survival has the potential to contribute to growth and employment. Thus, understanding the factors associated with survival is an important issue in itself. Furthermore, current research acknowledges that EMNCs, particularly from China and India, courted the economies of both the North and the South and they had different advantages and motivations in doing so (Athreye & Kapur, 2009; Park, & Lee, 2021). After more than two decades of EMNC investment, can the survival of EMNC investments reveal the factors that are associated with the success of EMNC investments in the North and the South? This is the main question we explore in this paper.

Research examining EMNCs' survival is relatively recent and has evolved in two directions. One stream of studies focuses on entry mode-specific performance outcomes and examines the profitability of foreign mergers and acquisitions undertaken by EMNCs (Li et al., 2016; Tao, Liu, Gao, & Xia, 2017; Qian, Wang, Geng, & Yu, 2017; Ahsan, Fuad, & Sinha, 2021). Another outcome studied is EMNC innovative performance and how internationalization enables EMNCs to improve their innovativeness (Awate et al., 2015; Wu et al., 2016; Piperopoulos et al., 2018; Thakur-Wernz & Samant, 2019). A second strand of scholarship focuses on process-based outcomes, such as knowledge absorption, productivity spillovers, capability enhancement, and learning of managerial know-how (Nair, Demirbag, and Mellahi, 2016; Liu and Meyer, 2020; Guo & Clougherty, 2020).

The effects of both the mode of entry and process-based outcomes ultimately influence the survival of investments, yet we lack empirical evidence on the survival of outward investments of EMNCs. Gu et al. (2018) find that the positive effect of multinationality on performance (measured by the return on assets) is larger (but non-monotonic) for EMNC investments in developed economies than in developing economies. These studies shed limited light on survival outcomes, as return on assets might be uncorrelated with survival, when investment in subsidiaries is for strategic reasons or in expectation of future profitability.

We argue that the survival likelihood of EMNCs is different in Northern and Southern locations due to the differences in their relative firm-specific advantages (FSAs) when compared to domestic firms in host countries. Furthermore, we can understand this differential-survival likelihood of investments in the North and the South from a real options perspective. Chinese and Indian early outward investments were often exploratory in nature - trying to discover those markets and locations where they could leverage their ownership advantages or augment them (Athreya and Kapur, 2009). In this quest, they faced uncertainty on various counts: due to institutional differences and disruptions, fluctuations in currency value, and unexpected changes in demand. The real options framework is a useful lens to analyze MNC strategic behavior when (irreversible) international investments are made with a strategic intent but encounter uncertainties that may force MNCs to “keep their options open” in pursuit of their strategic objectives (Dixit and Pindyck 1994; Song, 2021; Ioulianou, Leiblein, & Trigeorgis, 2021). We use the framework of real options theory to study the factors that might have influenced the survival of EMNC investments.

Institutional differences and economic development are two of the most important factors associated with firm survival (Gaur et al., 2019; Getachew & Beamish, 2021; Sartor & Beamish, 2020). The pattern of institutional and economic development generates regional differences, commonly captured in the trade literature by the classifications of North and South regions (Therien, 1999; Schamp & Stamm, 2012). The differences between Northern and Southern locations lie in the different stages of industrialization, adoption of technology, and level of institutional development. In international trade, the North-South divide is central to the explanation of world trade and growth patterns (Therien, 1999). The classic works of Findlay (1980, 1984), Chichilnisky (1981), and Taylor (1981) focus on the contrasting economic structures of North and South economies that determine the outward-looking trade policy and patterns of economic development.

The North-South distinction is also closely related to the IMF's distinction between developed and developing countries, which splits the world between the wealthy industrialized developed countries and the poor developing countries based on per capita income, and degree of integration into the global financial system. There is a large overlap between countries of the North and developed economies, and countries of the South and developing economies (e.g., Herzer, 2011; Narula, 2012). In this paper, we use the two terms interchangeably.²

We argue that investments in the North and the South offer different risk-reward bundles for EMNCs. In the South, EMNC firms have strong ownership advantages over their host country rivals due to superior organizational and human resources (Cook, 2014) but also operate in a volatile environment with poor governance and an institutional framework sometimes worse than in their home markets (Getachew & Beamish, 2017). The institutional similarity between the home market conditions of EMNCs in Southern economies may have helped EMNCs to navigate these risks as their own capabilities were honed in similar institutional contexts. Moreover, Indian MNCs are drawn to a steady demand due to the large and influential Indian diaspora in the South (Bordilovska & Ugwu, 2018), who may also act as brokers to help Indian firms navigate the different institutional uncertainties in less developed countries. Thus, returns from the South tend to be steady and the associated risk mitigated through these mechanisms.

In Northern locations, EMNC subsidiaries were more like firms scouting for the best technology or market niche, with weak ownership advantages compared to their rivals (Madhok & Keyhani, 2012). With the lack of sophisticated product and input markets, and immature R&D organizations, EMNCs are deficient in internal knowledge as compared to host country firms in the North that have well-developed knowledge bases (James, Sawant, & Bendickson, 2020). Here, they face more competitive conditions but, at the same time, the North offers a more stable institutional environment where many firms could escape their country-specific disadvantages (Nair et al., 2016) and hope to acquire strategic assets that augment their firm-specific advantages (Mathews, 2006). The sources of uncertainty in Northern locations have changed over time. In the early phase, adapting to institutional difference was a source of disruption, but since the financial crisis in 2008, the volatility of returns from Northern investments have increased due to changing exchange rates and shrinking demand making survival in the North became much harder (Athreye et al., 2021).

² Furthermore, in the data used in this study, the list of host countries for North and South are the same as those classified 'developed' and 'developing'. See Table A1 provided in the supplementary file.

We empirically test these propositions using a sample of 747 Chinese and Indian foreign subsidiaries belonging to 218 Chinese and 176 Indian firms over the period 2005-2018. Our empirical results confirm that survival was easier for investments in the South when compared to investments in the North. We further examine the contingency effect of diaspora on EMNCs' survival. The diaspora has helped provide ready markets and mitigate endogenous risks for *both* Indian and Chinese firms *but only in* Southern locations.

This study makes four important contributions to the literature on OFDI from emerging markets. First, by considering FSAs relative to domestic firms in host markets with particular reference to EMNCs, our study extends the work of Rugman and Verbeke (2003) Buckley (2016), and Narula (2012) by highlighting that the location boundedness of FSA is also influenced by the capabilities of rival domestic firms. Second, through a comparative assessment of the survival of EMNE investments in the North and South, we show that different factors predict the survival of investments in the North when compared to the survival of investments in the South. Third, we examine an important boundary condition, namely, immigrant diaspora, which influences survival in Northern and Southern locations differently. Lastly, although we explored differences in the factors influencing the survival of Chinese and Indian firms we found no statistically significant differences. This is reassuring as it confirms that our framework, based on real options theory, is a generalizable framework.

2. Theory and hypotheses development

Real options theory helps us to understand the role of FSAs and uncertainty in firm survival across different locations. Bowman and Hurry (1993) define real options as discretionary investments, in that they offer firms the right, but not the obligation, to take future action. Such options are particularly valuable in times of uncertainty as they provide flexibility to firm investments. Kogut and Kulatilaka (1994) suggest that foreign investments can effectively serve as a platform for future expansion, creating real growth options that the multinational firm otherwise would not be able to obtain. If the expansion opportunities materialize, and uncertainty is resolved, the foreign investment serves as a stepping-stone for further expansion of operations in the target country.

In contrast to the conventional view of uncertainty, the real options framework developed by Dixit (1989) and Dixit and Pindyck (1994), considers uncertainty in the host market not necessarily as a threat to a firm's survival but as a valuable opportunity for the firm to exploit. A firm, therefore, may choose to either invest in the present or delay investment by evaluating the investment payoff (Casson, 1994). Faced with exogenous

uncertainty, which comes from the macroeconomic business environment and which is beyond the firm's control, delaying and reversing investment are the two plausible options that MNCs may adopt (Tong and Li, 2008; Song, 2014). Faced with endogenous uncertainty, in contrast, firms can take mitigating actions, for example, adopting an incremental strategy through sequential investments (Xu, Zhou, & Phan, 2010) or MNCs may make a small initial commitment through a joint venture as a possible way to reduce the uncertainty related to investment partner risk (Buckley, Chen, Clegg, & Voss, 2020).

Earlier studies have frequently adopted a real-option framework to study the outward investment behavior of EMNCs. Using the sample of Korean multinational firms, Song (2014) found that intra-firm product shift within the same network of a multinational firm lowered the uncertainty that a subsidiary was exposed to due to rising cross-country labor cost differentials. Tong and Li (2008) argue that Chinese firms accumulate foreign market knowledge that provides real options for outward investments in the future. Buckley (2007) find that Chinese firms are financially better positioned to deal with the political uncertainty in highly vulnerable markets. Chen, Hu, & Hu (2002) find that Asian MNCs prefer the joint venture mode of entry in foreign markets to reduce the environmental uncertainties associated with their liability of foreignness and liability of origin. Shen and Puig (2018) show that Chinese firms choose Greenfield investments when they locate investment in country-of-origin clusters which provide these MNCs with an environment to learn about the host context to overcome uncertainty stemming from the liability of origin. Li, Guo, and Xu (2017) find that EMNCs with stronger learning and linking capabilities tend to overcome both external and internal uncertainties more quickly and, therefore, choose the wholly-owned mode in foreign entries.

Foreign investment is inherently risky, and investments have no guaranteed return (Vassolo, Anand, & Folta, 2004). A key requirement for using the real options approach is to identify both the rewards and the sources of risk. We develop the argument that EMNC FSA (relative to rival firms in the host economy) influences the rewards to investment but whether such rewards can act as a platform for future growth depends upon endogenous and exogenous sources of uncertainty. Uncertainty can give rise to strategies that keep options open for the EMNE: either by increasing investment in some activity lines or locations, switching investment across activity lines/locations, or withdrawing from activity lines/locations. By focusing on the survival of investments, we can study use of the stay versus exit options. The stay option is reflected in survival, which tells us that the EMNE

intends to build upon the investment in the future. Divestment, on the other hand, reflects an exit decision as the EMNE has decided that the investment is no longer viable.

2.1. Defining the rewards of investment: Firm-specific advantages of EMNCs

The central tenet of IB literature is that to internationalize and survive in foreign markets MNCs must possess significant FSAs over their local competitors which can enable them to offset the disadvantages they encounter when competing in foreign markets (Adarkwah and Malonaes, 2020; Bhaumik, Driffield, & Zhou, 2016; Barnard, 2021). Due to the unconventional nature of EMNE internationalization, where firms had few strong FSAs to start with, a rich literature has emerged that explores the nature of FSAs in EMNE and this literature has three main strands.

The first strand is that EMNCs develop new and strong FSAs by acquiring strategic assets in developed markets (e.g., Luo and Tung, 2007; Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010). The pioneering work of Mathew (2006), that proposes the “linkage-leverage-learning” framework, serves as a basis of this view which suggested that EMNCs tend to overcome their institutional disadvantages at home and develop internal capabilities by acquiring resources and capabilities abroad through accelerated international expansion. This view is similar to the “spring-board” perspective (Luo and Tung, 2007), which argues that EMNCs use internationalization as a springboard which helps them to build FSAs by aggressively acquiring intangible resources in developed countries and making international alliances. In contrast, the incremental view, proposed by Johanson & Vahlne (1977), would predict that EMNCs gradually increase their investment in the foreign market as they strengthen their FSAs and acquire experience in the process of internationalization (Meyer & Thaijongark, 2013). Initially entering in countries with similar institutional environments and usage of the low (or moderate) level of investment make this approach distinct from the springboard perspective which advocates targeting advanced countries and higher resource commitment (Samant et al. 2021). Munjal et al. (2022) examine the evaluation of Indian MNCs’ competitive advantage in the previous 20 years and argue that a cross-border acquisitions-led asset augmentation strategy led Indian multinationals to face trade-off in building their technological and marketing capabilities. Specifically, these firms had to lose their production-related competitive advantages in pursuit of marketing and technological capabilities following an asset augmentation strategy. In a bibliometric analysis of India-focused international business literature, Mukherjee et al. (2022) find cross-border acquisition

as an important strategic lever to access intangible resources and build competitive advantage over these resources.

A second key argument is that EMNCs possess few FSAs but have a wide range of CSAs that they can internalize and exploit in foreign markets (Dunning, 2006; Suter, Munjal, Borini, & Floriani, 2021; Barnard, 2021; Bhaumik et al., 2016; Saeed and Athreye, 2014). These home-based CSAs include access to finance, favorable regulatory policies, natural resources, low-cost labor, and availability of managerial skills. EMNCs venture abroad to exploit the comparative advantages of their home markets. For instance, Wang, Hong, Kafourous, & Boateng (2012) suggest that Chinese firms with access to cheap capital and labor tend to internationalize to exploit such cost-specific advantages. From this perspective, country-specific advantages allow EMNCs to operate certain types of activities in foreign markets more effectively than domestic firms in developed markets. However, some scholars such as Ramamurti and Hillemann (2018) do not consider home country-specific resources as FSAs as these resources are available to all firms located in that country.

The third strand of argument is that, in contrast to traditional FSAs that developed markets' MNCs possess, such as technological expertise and global brands, EMNCs possess unique FSAs. Importantly, these FSAs have developed as coping strategies in response to their home-markets institutional weaknesses and voids (Madhok and Kayhani, 2012; Khanna and Palepu, 1997; Peng, 2012). Examples of such FSAs include organizational flexibility, social networking, cost efficiency, and coordination of diverse knowledge.

Even though each perspective emphasizes that EMNCs possess some kind of FSAs to ensure success in their foreign investments, it is remarkable that even in the presence of FSAs, multinational firms can still fail to survive. Thus, Buckley (2016, p.3) suggests that "FSAs are not sufficient to ensure the completion or success of an FDI" and goes on to argue that the value of FSAs is determined with reference to the host market location, particularly the capabilities of competing firms operating in that location. Indeed, the value of FSAs tends to be limited or even detrimental for firms in certain locations or circumstances. For instance, the widely assumed cost-advantages attributed to EMNCs in the North vanished over time as competitors acquired access to cheap resources (from other foreign markets) for their production inputs (Buckley, 2007). Narula (2012) sheds light on the relativity of FSAs and suggests that unique FSAs are relative and location-bounded. Peng (2012) further argues that EMNCs' connections with the national government (a type of EMNC FSA) may be detrimental to the firm's survival in some locations (e.g. Northern /western markets) as it raises suspicion, particularly in Western markets. In a recent case, Huawei's relationship with

the home government was one of the main factors causing its exit from the US market. Narula (2012, p.191) suggests that unique FSAs are relative and location-bound which helps EMNCs to “generate profits, but only in a specific location, or to an extent, in similar locations”. For instance, the value stemming from the managerial relational capabilities may be limited when operating in locations where such capabilities are not so unique. In sum, all these arguments highlight that the value of FSAs depends on the particular characteristics of the host location and relative to the capabilities of competing firms in the host market.

The importance of *the relative capability of competitor firms* often stays in the background in the discussion of EMNCs’ FSAs and only a handful of empirical studies have tested the importance of relative FSAs. Notable exceptions are studies that consider technological distance such as Thakur-Wernz, Cantwell, and Samant (2019), Makino, Lau, & Yah (2002) and Sanfilippo (2015). Cook (2014) explores the human resource management (HRM) practices of Chinese high-tech firms operating in foreign countries and finds that these firms tend to have a competitive advantage over domestic firms in South/Southeast Asia and Africa in their employee welfare policies, training and career development opportunities, and organizational culture-building activities. However, the Chinese corporate brand reputation is not competitive in Western countries and their pay-level and performance-based rewards are lower than that of western local firms. The World Investment Report (2019) estimates that the average asset base of the top 100 leading EMNCs is about 10.5% of their peers from developed countries (UNCTAD, 2019). The main takeaway from these studies is that any discussion of FSAs as a source of dynamic competitive advantage requires that the FSA of the EMNC is stronger when compared to host country firms. Without this order of FSA, it would be impossible to derive longer-term rents and competitive advantage, which alone would justify the higher costs and riskiness of investing abroad. If a firm did not enjoy relative FSAs, it would not be able to survive in a market, for its initial advantages would be impossible to sustain in the face of imitative behavior or employee turnover.

For EMNCs, relative FSAs are likely to be stronger in countries of the South as compared to the North. In the North, EMNC subsidiaries are more like firms scouting for the best technology or market niche, with weak FSAs compared to their rivals. Their aim with such investment is to strengthen capabilities (technology, managerial capabilities, and innovation), leading to enhanced competitiveness and stronger ownership advantages (Lee, Narula & Hillemann, 2021). Despite the impressive accomplishments of many MNCs from emerging markets in the North, EMNCs generally do not possess significant comparative advantages relative to the domestic firms in advanced countries (James et al., 2020). For

example, the organizational and human resource practices prevalent in EMNCs give them a disadvantage in the North as the human resource and organizational capabilities of domestic firms in the North are far superior to EMNCs' capabilities (Narula, 2015). However, these capabilities provide EMNCs with a competitive advantage in the South where indigenous firms are less likely to possess such capabilities at a sophisticated level (Shrestha, McKinley-Floyd, & Mtigwe, 2008). In Southern locations, EMNCs, in fact, play the role of “knowledge provider”. Rui et al. (2016) explain that EMNCs possess superior knowledge and organizational practices compared to domestic firms in the South, which makes them an important supplier of knowledge to these firms. Some EMNCs do so by simultaneously acquiring knowledge in developed markets. Another possible source of competitive disadvantage for EMNCs in the North is a relatively weak internal knowledge base due to the lack of sophisticated product and input markets, and R&D organizations (James et al., 2020). Barnard (2010) also notes the much smaller asset bases of EMNEs compared to long-established firms from the North. Due to this smaller knowledge base, Ramamurti (2008) argues that EMNEs in Northern locations generally dominate in medium research-intensive industries. Knowledge acquisition remains an important reason for EMNCs to make investments in high-technology firms in developed countries (Figueira, de Oliveira, Rottig, & Spigarelli, 2020). Ample anecdotal evidence shows that EMNCs seek assets in the North to complement or compensate their weak knowledge-related FSAs (Elia, Kafouros, & Buckley, 2020). In contrast, learning from home markets where EMNCs develop organizational forms and routines to survive in the unstable institutional environment (Gaur & Lu, 2007), EMNCs are in a better position to compete in the South that is institutionally similar to the home country. Narula (2014) suggests that underdeveloped institutional environments propel EMNCs to create hierarchies and structures, which are then likely to result in an FSA in institutionally similar countries. Taken together, EMNCs achieve competitive advantage in the South through combining resources based on their more detailed familiarity with the institutional environment and relatively stronger FSAs in organizational practices and knowledge capabilities compared to domestic firms in the host economy.

Some studies take a dynamic perspective of FSAs and suggest that competitiveness of firms—relative to competing firms in the host location—can evolve over time. Thus, firms with weaker FSAs can build ownership advantages and outperform firms which have stronger FSAs in the long run because of gains due to knowledge spillover from developed MNEs (Wan, Williamson & Pandit, 2020; Lee et al., 2021). However, the role of such dynamic accumulation of FSAs in increasing the probability of survival of an EMNE depends both on

the rate at which the firm accumulates new FSAs and the rate at which the host economy firms imitate away the original FSA advantage and close the capabilities gap. In Southern locations, EMNEs face a lower rate of domestic imitation due to the relatively low absorptive capability of domestic firms in developing countries (Bilgili, Kedia, & Bilgili, 2016). FSAs of EMNCs may also become obsolete more slowly in the South as technological changes and customer requirements do not change fast enough in these markets to challenge the EMNCs' dominant position (Karabag, 2019). On the other hand, domestic firms in the North are more likely to outperform EMNCs in the long run as their strong knowledge bases enable a faster rate of imitation and adaptability in changing environments. Therefore, the survival likelihood of EMNCs, based on dynamic FSAs, is higher in the South compared to the North.

From the real options perspective, EMNCs with weaker FSAs and capability-augmenting investments may also aim to quickly absorb the required knowledge in developed economies in order to utilize it in home markets and other countries. Once they successfully acquire the required knowledge, these firms may have no reason to continue these investments. So, when the initial purpose is met (for which the investment is made), the reason to maintain the investment disappears, and the growth options while using this investment as a platform fade. At this stage, the cost of sustaining the investment (opportunity cost of capital and resources locked in the investment) may begin to exceed the benefits (if any) of growth options. Consequently, staying longer in the market is an unlikely response of EMNCs with relatively weak FSAs. The opposite is true of EMNCs that have strong relative FSAs compared to host country firms³. In sum, the likelihood of survival of EMNCs in the host market is higher when they have stronger FSAs. Thus, we propose that:

Hypothesis 1: EMNCs are more likely to survive in Southern locations (as compared to the North) due to their stronger FSAs relative to their local competitors in Southern locations.

2.2. The role of institutional risks and EMNCs' survival

As noted earlier, prior studies classify the risk in host locations into exogenous and endogenous risks. Exogenous risk is present when there are parameters that affect a firm's revenue stream, which the investing firms' actions cannot influence. Generally, all those factors that uniformly influence MNEs and other actors are exogenous risks (Buckley et al. 2020). For example, currency exchange rate is a source of exogenous risk as these rates are determined in atomistic markets (Cuypers and Martin, 2010). On the other hand, endogenous

³ While we do not deny the remarkable success of EMNCs in developed markets, we suggest that the probability of survival of EMNCs on average is higher in the South as compared to the North due to their relative FSAs.

risk relates to the risk that is unequal between firms and which firms can influence through their actions and capabilities; furthermore, recent research has emphasized its relevance for understanding the behavior of EMNCs (Song, 2021; Getachew and Beamish, 2017). Firms can resolve endogenous risk over time (at least in part) by learning through experience and utilizing their capabilities (Buckley et al., 2020). For instance, a firm may not know a priori what the business environment in a host country may be, but that risk can be resolved by utilizing its learning capabilities about the host country (Mazé & Chailan, 2021). Recent literature on EMNCs has stressed the role of endogenous over exogenous risks in explaining firms' overseas survival, as endogenous risks are manageable and influenced by firms' capabilities (Buckley et al, 2020; Mohr, Batsakis, & Stone, 2018).

Northern locations offer a more stable institutional environment, attracting firms that want to escape their country-specific disadvantages. However, endogenous risks are high in the North due to greater market competition (Vural-Yavas, 2020). Barnard (2010) shows that EMNCs are more likely to develop into centers of excellence in the relatively less competitive US industries. Further, adapting to institutional differences can be a source of disruption for many EMNCs, particularly in their early phase of internationalization (Cui and Xu, 2019). Wu (2013) further suggests that an institutionally distant host market environment may also trigger endogenous risk in the form of conflicting demands of external legitimacy in host countries. Song (2014) considers the effect of institutional development on a foreign firm's divestment decisions and suggests that financially developed markets reduce the cost of exit, which increases the likelihood of exit. In particular, laws that make declaration of bankruptcy easy, and deep capital markets due to strong institutional and financial development in developed countries, enable foreign firms to easily exit Northern locations.

Southern locations have high levels of endogenous risk that arise due to underdeveloped institutions, frequent government interventions, and vulnerability to political instability (Ufere, Gaskin, Perelli, Somers, & Boland Jr, 2020; Korbi, Ben-Slimane, & Triki, 2021). Institutional similarity between home and host markets may advantage EMNCs who possess prior knowledge of regulations, likely customer sectors, and suppliers—all of which are valuable in formulating strategies in dealing with endogenous risks in the supply chain and consumer market. Relational strategies in the context of political uncertainty are critical to win (and keep) the goodwill of influential people in government.⁴ Affiliates of multinational firms can access more resources than domestic firms, and are better positioned

⁴ A nascent body of literature considers political risk as endogenous risk as firms can lobby governments and mitigate adverse impacts of political uncertainty (Buckley et al, 2020).

to obtain political advantages from governments. Countries with weak checks and balances in the formal policy-making apparatus and fewer players involved in the policy-making process (such as most developing countries) tend to have a higher level of political risk (Lawton, McGuire & Rajwani, 2013). Informal networks and other forms of networking help firms to shape the politically risky environment to their advantage (Sheng, Zhou, & Li, 2011). EMNCs are accustomed to managing and shaping such political risks by closely working with political actors. Getachew and Beamish (2017) argue that EMNCs' ability to deal effectively with adverse institutional conditions leads them to develop organizational capabilities to manage political risk in volatile countries. Establishing relationships with governments eventually confers EMNEs' market power to limit competition and build defensible positions against domestic and foreign competitors. The real option implication here is that, to exploit FSAs in a weaker institutional environment, the relational capital with the host government enables the firm to avail of (future) growth options, but in turn this commits the EMNE to a long-term presence in the host market. Thus, switching/exiting is a less likely response of EMNCs in the South. Moreover, the less developed formal institutions also increase the cumulative costs of exiting a market, which leads EMNCs to devise strategies to continue operations in the market. Based on the discussion, we propose the following hypothesis:

Hypothesis 2a: EMNCs' survival is more likely to be adversely influenced by endogenous risks in Northern as compared to Southern locations.

The range of exogenous factors that may pose a threat to firm survival range from business environment uncertainty to industry regulations (Song, 2021). Considering exogenous uncertainty-related factors are beyond MNC control, firms cannot do much to avoid it. Exogenous risks play an important role in explaining exits/switching away of investment from locations facing such risk (Tong and Li, 2008; Song, 2021). For instance, technological change can trigger divestment of those firms that are unable to adjust sufficiently to new technological advancements (Konara & Ganotakis, 2020). This factor is particularly relevant in Northern locations, which experience rapid technological and innovative shifts (Grazzi, Piccardo, & Vergari 2021). Similarly, Baron and Spulber (2017) show that technological change in the US induces a significant increase in the rates of firm divestment. Hostile host market conditions can also trigger MNCs to divest. Dai, Eden, & Beamish (2017) and Oh and Oetzel (2017) show that the most likely response of

multinational firms to a political crisis is to flee the turbulent market. Liu and Li (2020) find firms operating in violent conflict zones are more likely to divest as the cost of sustaining business operations in such an environment is very high. In addition, Chang and Singh (1999) find that divestment is higher in industries with greater concentration because fewer opportunities for collusion make it difficult for firms to survive in periods of low demand.

Market demand uncertainty influences a firm's production and sales and, in turn, makes it difficult for the multinational firm to determine an appropriate long-term investment structure (Cuypers & Martin 2010; Song, 2017). In fact, low market demand in developed countries, triggered by the financial crisis of 2008, is responsible for the sharp increase in the divestment of multinational firms from the North (Carreira & Teixeira, 2016). Importantly, since the financial crisis in 2008, the volatility of returns from Northern investments has also increased due to changing exchange rates (Athreya et al., 2021). The situation was exacerbated by the pursuit of austerity policies in many economies (Giebel and Kraft, 2020). Thus, exogenous risks due to exchange rate and demand volatility have also increased over time and made the survival of EMNCs more difficult in Northern locations.

The real options view is that waiting and gathering more information is more valuable under uncertainty concerning macroeconomic circumstances (Song, 2021). In a highly uncertain macroeconomic environment, waiting can have a greater value due to the possible upside gains that can be exploited once the uncertainty is resolved. Nevertheless, there is a huge cost associated with maintaining an affiliate investment position in the presence of macroeconomic uncertainty, and these costs may exceed the benefits of waiting. Consequently, a firm may choose to divest from that particular market and redirect resources towards more profitable opportunities. In other words, terminating the investment is more valuable in an uncertain environment when the cost of sustaining the investment may begin to exceed the benefits of waiting and the option value of staying in the market becomes less attractive for poor performing firms (O'Brien and Folta, 2009). Thus, it can be suggested that uncertainty, which cannot be influenced by a firm's actions, limits the firm's survival in the host market. These arguments suggest the following hypothesis:

Hypothesis 2b: Exogenous risks will adversely affect survival in both Northern and Southern economies.

2.3. Immigrant diaspora as a risk-mitigating factor in the presence of endogenous risk

Recent research demonstrates the positive impact of international migration on the levels of foreign investment in host countries (Gregoric et al., 2021; Yi, Zhan, Zhang, & Zhao, 2021; Estrin et al. 2018b; Shukla and Cantwell, 2018; Foad, 2012; Zamir and Saeed, 2020) and corporate strategic considerations that enhance resource commitment to migrants' home countries (Schulte, 2008). The economic significance of the immigrant diaspora is evident by their sheer presence in a country. According to the US Migration Policy Institute (2019), the immigrant population in the US increased by 1.5 million (2.6%), reaching 90 million, amounting to 28% of the overall US population (USMPI, 2019). Expatriates are a ready consumer market that may play an important role in the growth of EMNCs in host markets (Kumar and Steenkamp, 2013) since immigrants generally try to maintain their cultural distinctiveness (identity) in the host culture by clinging to their lifestyle, values, products, and brands. The presence of a large immigrant population from the home country is a good signal of investment opportunities in foreign locations for many EMNCs. Estrin et al. (2018a) find that the destination country considerations of EMNCs are different from multinationals of advanced countries and that EMNCs are more attracted to countries with a larger migrant diaspora. Drawing on the signaling perspective, Gregoric et al. (2021) suggest that the presence of immigrants in firms constitutes a reliable third party signal of EMNCs' trustworthiness, which helps them to access advanced technology in host markets.

Numerous EMNCs have targeted their home country's diaspora as a beach-head to enter a new market. For example, Manila-based fast-food firm, Jollibee, targeted affluent Filipinos in California and used them as a stepping-stone for expanding into the rest of the country (Kumar, & Steenkamp, 2013). Similarly, ICICI, an Indian bank, used the Indian diaspora to internationalize by opening foreign branches in the Middle East, where a large number of Indians live. Subsequently, they opened branches in other locations having a large Indian diaspora such as the UK, Malaysia, South Africa, and Singapore. (Kumar, & Steenkamp, 2013). In another example, Tecate, a Mexican beer brand produced by Moctezuma brewery established its US operations by reaching out to Mexican-Americans. With its distinctive packaging and targeted marketing, Tecate became the number one imported beer among Hispanic-Americans and the fifth-largest imported beer by volume in the US (Wentz, & Lwentz. 2009). Taken together, these examples demonstrate how the diaspora community serves as a ready market for EMNCs, and has a direct positive impact on a firm's profitability and survival.

At the same time, it is important to note that the Indian and Chinese diaspora are a larger share of a host country's population in Southern locations (mainly Asian and African

economies) compared to Northern locations (Indian Ministry of External Affairs, 2018; Hodzi, 2019; Textor, 2021). For example, Indian diaspora represents 65% and 7.4% of Mauritius and Malaysian total population, respectively, and 2.5% of South African population, with many immigrants having arrived in the 19th century during British colonial rule. In the Middle East, Indian diaspora represents 42% of Qatar, 23% of Saudi Arabia, and 22.5% of Kuwait's population. Similarly, the Chinese diaspora comprised 23.2% of the total population in Malaysia, 14% of Thailand, 10.3% of Brunei and 3.5% of the Indonesian population. In comparison, the largest share of the Indian and Chinese diaspora in developed countries is in Canada (4%) and Australia (5.1%), respectively.

Viewing from the real options perspective, when the profitability of EMNCs is high, the option value associated with staying in the market is greater than the value that emerges from divesting and relocating the capital to other markets. Thus, by serving as a ready-market, immigrants enhance a firm's likelihood of survival and discourage divestment. Consequently, we posit the following hypothesis:

Hypothesis 3a: Immigrant diaspora has a stronger positive effect on EMNCs' survival in the South as compared to the North due to larger ready markets.

The positive impact of the immigrant diaspora can also arise from a knowledge advantage that immigrants create for their home country firms. Immigrants' first-hand market knowledge about the host market and their interpersonal local networks help firms to reduce the perceived psychic distance to host locations (Chung, Fung, & Hung, 2012). Buch et al. (2006) find that cultural linkages play an important role in international economic relationships in Germany. Foad (2012) finds that immigrants of OECD countries attract investment from their respective countries across 50 US states. In a similar study, Shukla and Cantwell (2018) show that foreign-born workers in the US exert a pull effect on inward investment from their home countries.

The institutional distance between home and host countries can create endogenous risks in host markets that arise from limited knowledge about social, cultural, and political aspects of production. This in turn leads to higher uncertainty for MNCs but, through experience, this knowledge is learned and its effect on uncertainty can be minimized (Gaur and Lu, 2007). We argue that immigrants' knowledge can also enable EMNCs to mitigate the endogenous uncertainty in host markets, thereby increasing the chances of survival. Knowledge acquired from the immigrant diaspora enables EMNCs to precisely identify

relevant sources of risk and formulate mitigation strategies (Kunczer, Lindner, & Puck, 2019). Immigrant knowledge can, hence, reduce information asymmetry about the host institutional environment and reduce endogenous risk. Additionally, better access to market knowledge reduces the cost of collecting and interpreting information (Gaur and Lu, 2007). Cost saving enables firms to sustain competition through adopting a cost differentiation strategy (Li and Li, 2008).

These advantages stemming from the knowledge and experience of immigrant communities are more likely for EMNCS operating in the South as compared to the North. First, large cities in the North are generally metropolitan global cities, such as New York, London, Paris, and Rome, where people and communities around the world reside. Therefore, almost all foreign firms have access to the immigrant diaspora of their home country in the North. Consequently, the knowledge that, for instance, Indian firms can acquire through connecting their immigrant diaspora in London may also be available to German MNCs which can access the German immigrant community in London. The advantages that emerge from immigrants' knowledge do not remain unique, so, comparative advantage arising from such knowledge also disappears. In contrast, a few migrant communities dominate large cities in the South such as Lagos, Cape Town, and Cairo, where Indian and/or Chinese immigrants are a relatively larger presence (World Economic Forum, 2015) and where EMNCs can sustain their comparative advantage based on knowledge acquired from immigrant diaspora. Second, a large portion of the economy in the South is informal (Charmes, 2012). Informality increases endogenous risks for firms (London and Hart, 2004). In such an environment, migrants' experiential knowledge about the informal institutional structure, processes, and decision-making is more valuable. Based on these arguments, we propose that:

Hypothesis 3b: Immigrant diaspora provides a source of learning about how to overcome endogenous risks and act as gatekeepers to foreign institutions. A larger presence of home communities in the South has a stronger positive effect on EMNC survival in the South as compared to the North.

3. Data and Methodology

3.1. Data

We use an unbalanced panel dataset for foreign subsidiaries of all (non-financial) Chinese and Indian firms collected from Osiris and Orbis, from 2005 to 2018. Both

economies are considered pivotal players in shaping the global economy as both share the largest world trade share, human resource base, and consumer base. Together they accounted for 25% of OFDI flows in 2018 (UNCTAD, 2019). This scale allows us to empirically sample a sufficient amount of divested and non-divested subsidiaries of EMNCs to conduct this research.

Orbis and Osiris databases offer large firm-level non-financial and financial information for more than 70,000 global firms. Studies in international business literature related to survival and divestment use these data sources quite extensively (e.g., Mohr et al., 2018; Garg & Delios, 2007). For sample selection, initially, we searched for foreign subsidiaries of Indian and Chinese EMNCs in both databases and found more than 1,500 non-financial foreign subsidiaries. We select those foreign subsidiaries, which contain financial information for at least three years (Hendricks & Singhal, 1997). Although both databases provide extensive firm-level information on MNCs, information at the subsidiary level is limited, especially for foreign subsidiaries. This selection criterion reduced our sample size to 754 subsidiaries of 394 parent firms (176 Indian and 218 Chinese EMNE). Among these firms, we then distinguish between foreign subsidiaries that experienced complete exit in terms of selling-off or shutting down and which remained functional during the study sample period 2005 to 2018. We decide about the divestment of subsidiaries based on two criteria following previous studies on divestment: if the record of a subsidiary is not available for subsequent years or by looking at the status of the subsidiary in terms of active or de-active status reported in databases. We further validate this process by examining the annual reports of parent firms as these also mentioned the name of divested subsidiaries. It is important to note that extracting information for divested firms is a difficult task, as in most cases, their web pages are no longer accessible. For country-level variables, for instance, Home Country Diaspora and GDP, the data are from various sources such as the International Migrant Stock matrix (published by the UN), national statistical bureaus (census data), OECD, ILO, World Bank, WGI (indicators), and WDI databases.

Finally, after cleaning, our final sample comprises about 418 Chinese and 329 Indian foreign subsidiaries (747 subsidiaries altogether). Of these, 241 subsidiaries have been divested suggesting an overall survival rate for 2005-2018 of 67.7% overall and 68.4% for Chinese firms, and 66.8% for Indian firms. In terms of regions, 179 subsidiaries were divested from Northern locations, indicating a survival rate of 64.4%, whereas 62 subsidiaries

were divested from Southern regions with a survival rate of 74.5%.⁵ Thus, EMNCs had a far better survival rate in the South as compared to the North. Figure 1 plots this survival by year and we can see the sharp decline post-2009—the year of the financial crisis.

In Table A2 (supplementary file) we present cross-tabulations plotting profitability (measured by return on assets) against the exit and stay decision in both Northern and Southern locations. Firms may be unprofitable in some years but profitable in others. What we see is that, over the entire period, many more unprofitable subsidiaries stayed rather than exited Northern locations compared to Southern locations. This decision to stay, despite the lack of profitability, suggests the possibility of strategic value and justifies our use of a real options framework. When we split the sample period into two parts comprising the period up to the financial crisis of 2009 (2005-2009) and the period after the financial crisis (2010-2017), we see that the financial crisis hastened the exit of unprofitable firms, in both the North and the South.

3.2. Methodology

We use Cox's proportional hazard rate model following Song (2014) that allows us to estimate the length of the time until the exit (failure) of an investment. This methodology simultaneously addresses the duration and event of each observation unit and is desirable in the case of survival analysis when measuring the effect of an event (e.g., Song, 2014; Chang & Rhee, 2011). The variables of interest in this analysis of survival are the event (exit) and the length of time or duration that elapses from the beginning of some events either until 'their' end or until the end of the analysis. This methodology addresses the issue of censored data (no exit at the cut-off year), event (no exit vs exit), and duration effect (subsidiaries' survival years) (Chang & Rhee, 2011). The dependent variable is instant hazard rates, which is the span of the survival variable (calculated as the difference between time t and the firm's set up year) and the year of exit (Song, 2014). We estimate the probability that the event may occur for the i th subsidiary by using the method of partial likelihood estimation (Song, 2014; Chang & Rhee, 2011).

Following Song (2014) and Giovannetti, Ricchiuti, & Velucchi (2011), the functional form of the model is derived as follows.

Let "T" be a "random variable" with a cumulative probability distribution defined by $F(t)$:

⁵ The list of host countries included in North and South regions is provided in supplementary file (Table A1).

$$F(t) = \int_0^t f(s)ds = \Pr (T \leq t)$$

This study is interested in the probability that the period is of length at least “ t ” which is given by the following survival function:

$$S(t) = 1 - F(t) = \Pr (T \geq t)$$

and the probability that the phenomenon will end the next short interval of time “ Δ ” is:

$$l(t, \Delta) = \Pr (t \leq T \leq t + \Delta | T \geq t)$$

The hazard rate, i.e., the rate at which spells are completed after duration “ t ” given that at least “ t ”, is:

$$\begin{aligned} \lambda(t) &= \lim_{\Delta \rightarrow 0} \left(\frac{\Pr (t \leq T \leq t + \Delta | T \geq t)}{\Delta} \right) \\ &= \lim_{\Delta \rightarrow 0} \frac{F(t + \Delta) - F(t)}{\Delta S(t)} = \frac{f(t)}{S(t)} \end{aligned}$$

To estimate the effect of different regressors (explanatory variables of this study) on the survival probability of the phenomenon, this study estimates the parameter “ λ ” using maximum likelihood by the Cox Proportional Hazard regression. The “hazard function $h_i(t)$ of “ i ”th firm is as follows:

$$h_i(t) = h(X, t) = h_0(t) \exp (\beta' X) \quad (1)$$

Where $h_i(t)$ shows the hazard rate for the period between the beginning and the end (event) of the ‘ t ’th year after the first appearance of the EMNC subsidiaries in the North or South regions and the baseline hazard function is $h_0(t)$. $(\beta' X)$ is showing the vector of explanatory variables (X) and their unknown coefficients (β). The covariate X includes variables at the firm, industry level, and country level described in more detail in the following section. Negative coefficients (which result in relative risk ratios less than one) imply that the hazard rate decreases, and the corresponding probability of survival increases.⁶

We estimate hazard models for all investments in Southern and Northern locations. To check for the significance of differences between the two groups, tests of homogeneity are run. We use the nonparametric Log-Rank, Wilcoxon, Tarone–West, and Peto–Peto–Prentice

⁶ As the hazard rate is the $\exp(\beta' X)$, negative values of β result in hazard rate values less than 1.

tests as suggested by Giovannetti et al. (2011). At each failure time t , the test statistic is obtained as a weighted standardized sum of the difference between the observed and expected number of exits in each of the k -groups. The null hypothesis comprises no difference between the survival functions of the k -groups.

3.3. Variable measurements

The dependent variable is the instant hazard rates based on the survival duration and exit event variable. Duration is the difference between the current year and the founding year of a subsidiary. The exit event variable is defined as the exit dummy which takes 1 for complete withdrawal or 0 otherwise.

The key explanatory variables based on the hypotheses developed in Section 2 consist of relative FSAs, exogenous and endogenous uncertainty, and the immigrant diaspora. To measure relative FSAs, the included variables comprise absorptive capacity, absorptive capacity leader, profitability, profitability leader, labor productivity, and labor productivity leader variables. To compute relative *Absorptive Capacity*, we look at R&D expenditures divided by total revenues (James et al., 2020) for the i th subsidiary and we subtract this from the industry average of that ratio in a particular host location. Relative *Profitability* for the i th subsidiary is calculated as “earnings before interest, taxes, depreciation, and amortization divided by total assets” (James et al., 2020), and we subtract this from the industry average of that ratio in a particular host location. To measure relative *Labor Productivity*, we again subtract the *Labor Productivity* of a subsidiary measured as total revenue divided by the total number of its employees from its industry average in a host country. In each case, we distinguish between the absolute value of the difference and the direction of the difference. If the firm showed absorptive capacity, profitability, or labor productivity that was higher than the relevant industry average, we created a leader dummy variable that took the value of 1. This allows us to capture both the superior ability of the focal firm and also how imitative its competitors in the local environment are. A position of leadership with a large difference should predict survival.

[Insert Table 1 here]

The main sources of endogenous uncertainty are *Country Risk* and *Institutional Distance*. *Country Risk* is measured as Rule of Law WGI indicator of the host country in reverse order by following Buckley et al., (2020). Lower values of this measure indicate

lower country risk. To measure *Institutional Distance* between home and host countries, following Shirodkar & Konara (2017) we use the Kaufmann index from the WGI.

To control the host country level exogenous risk effects, *Exchange Rate Risk*, *Production Cost Risk*, *Demand Risk*, and *Financial Crisis* variables are included. To determine *Exchange Rate Risk*, following Lin, Shi, and Ye (2018) we use the standard deviation of the first difference of annual bilateral exchange rate between host and home countries over the five years preceding the current year. For *Production Cost Risk*, we follow Hooper & Larin (1989) and Lin et al., (2018) and measure it as the standard deviation of unit labor cost series of respective host country over the period of five years preceding the current year. To measure the *Demand Risk*, we follow Song (2014) and measure it as the standard deviation of the GDP series of the individual host country over the five years preceding the current year. To control the effect of the Global Financial Crisis of 2008, a dummy variable is created, namely, *Financial Crisis* which takes 1 for the year 2008 and above and 0 otherwise.

We follow Leblang (2010) and use the ratio of total number of immigrants from China and India residing in the host country to the total population of the respective host country to measure *Home Country Diaspora*. For the moderation effect of *Home Country Diaspora* on the relation between *endogenous uncertainties* and survival of subsidiaries, two interactive terms, i.e., *Home Country Diaspora* \times *Country Risk* and *Home Country Diaspora* \times *Institutional Distance* are included.

Following the existing literature, we also include several subsidiary and parent level control variables. *Sunk Cost* is measured as sale of a foreign subsidiary divided by the sale of its parent firm (Song, 2014). *ROA* (Return on Asset) is measured as net income divided by total assets of a subsidiary. *Equity Ownership* is calculated as the natural log of share of ownership by the parent firm in a foreign subsidiary (Demirbag, Apaydin, & Tatoglu, 2011). To measure the *Asset Seeking Motive*, we use a dummy variable that takes 1 if a subsidiary belongs to technologically advanced sectors, for instance, software-IT, automobile, chemicals, electronics, iron and steel, pharmaceuticals, and telecommunications sectors by following Lu et al. (2011). *Parent Size* is calculated by following Dikova (2009) as a natural log of the number of employees of the parent firm. To operationalize the international experience of parent firms in all five regions, namely *American*, *European*, *African*, *Asian*, and *Arab*, we include five variables for measuring the *parent experience* as a number of foreign subsidiaries, following Dikova (2009), in *American*, *European*, *African*, *Asian*, and *Arab* regions, respectively. *Subsidiary Size* is measured as a natural log of the number of employees of a subsidiary (Dikova, 2009). For *Leverage* effect, debt to asset ratio is used (Gu

et al., 2018). *State Affiliation* takes 1 if a subsidiary belongs to state-owned parent firm, 0 otherwise (Adarkwah & Malonæs, 2020; Saeed et al., 2016; Saeed and Sameer, 2017). To control the country level effect, *China Dummy* is included as it takes 1 if a subsidiary belongs to Chinese parent firms. *Subsidiary Age* is measured as the difference between the current year and founding year (Demirbag et al., 2011). *Family Controlled* takes 1 if a subsidiary is controlled by one family or sets of families (Adarkwah & Malonæs, 2020). We define a subsidiary as family-controlled if two, or more than two, board members possess a family relationship (Gomez-Mejia, Makri, & Kintana, 2010). All main explanatory and financial variables are one-year lagged (t-1) following Jain (1985) as he suggests that financial measures of a firm start suffering one year earlier to exit.

4. Empirical Results

4.1 Descriptive statistics

Table 2 presents the descriptive statistics of the variables used in this study for foreign subsidiaries in North and South regions. On average, more Chinese and Indian subsidiaries exit from Northern than Southern locations. Figure 1 also shows the survival rate of the sample firms through the sample period. By construction, survival rates are downward sloping because only a fraction of the entire cohort of 2005 is likely to survive until 2015⁷. The overall declining trend of EMNCs' survival can partially be explained by the slow-down in globalization and the sharper contraction of Western markets after the 2008 global financial crisis. Figure 1 shows this – 80% of the subsidiaries in Southern locations in 2005 were still active in 2018, while only 65% of subsidiaries in Northern locations in 2005 remained active in 2018. Furthermore, we can also see that the gap in survival in Northern and Southern locations is widening over time and especially after the financial crisis. This is consistent with what we observe in Table A2, where a larger number of unprofitable firms exited after 2008.

[Insert Figure 1 here]

Chinese and Indian subsidiaries in the South possess higher *Profitability* and *Labor Productivity* than subsidiaries in the North. *Absorptive Capacity* of Chinese and Indian firms is higher in the North; however, *Absorptive Capacity Leadership*, measures if Indian and

⁷ It is important to note that Figure 1 depicts the survival rate of a cohort of firms that existed in the market in 2005 and plots the year of exit from this population of firms. Our sample does not include any new firm that enters the market during 2005-2018. As only exits from the cohort are analyzed, their survival function will always have a declining trend.

Chinese firms spend more or less than domestic firms. Specifically, it takes the value of 1 if EMNEs spend more than host country firms and zero otherwise. *Absorptive Capacity* of Chinese and Indian firms is higher in the North which means their R&D intensity is higher in Northern than Southern locations. Indian and Chinese firms invest more in R&D in the North compared to the South due to the asset-seeking nature of investments in the North. However, despite the fact that Indian and Chinese firms have low R&D spending in the South, it is still higher than the R&D spending of domestic firms which confers them as an absorptive capacity leadership. The levels of *exogenous uncertainty* faced by Chinese and India firms are higher in Northern than in Southern locations, whereas endogenous uncertainty in terms of country risk is higher in Southern locations for these firms.

[Insert Table 2 here]

The Northern region has a lower level of *Home Country Diaspora*, and subsidiaries of this region have lower *Subsidiary Size*, *Subsidiary Age*, *ROA*, *Parent Size*, and share of parent investment (*Sunk Cost*) than the Southern region. The Northern region has more subsidiaries with state affiliation and higher *Leverage* while the Southern region has more subsidiaries with family control. The Northern region has subsidiaries with greater *Parent Experience* in *American* and *European* regions while the Southern region has subsidiaries with greater *Parent Experience* in *African*, *Asian*, and *Arab* regions.

Panels A and B present the correlation matrix in Table 3 for subsidiaries in Northern and Southern regions, respectively. The correlation values are low so there is no concern of multicollinearity in the estimated models.

[Insert Table 3 here]

4.2 Regression estimates

Regression results of the Cox proportional hazard model (1) estimated in a hierarchical linear processing way, are reported in Table 4. Columns 1, 3, and 5 show the results of main independent and control variables for the entire sample and subsidiaries in the North and South regions, respectively, while columns 2, 4, and 6 present the results of the full model by including the interactive terms in all three cases. The significant probabilities of Chi-Square indicate that explanatory variables significantly predicted the dependent variable and improved the model fitness. Table 5 presents the results of tests of homogeneity in the full model which tests the null hypothesis that survival functions are the same across North and South. This hypothesis is rejected in all four homogeneity tests, indicating that survival

functions are not the same across the two groups and providing statistical proof of heterogeneity. As explained earlier, negative coefficients in Table 4 predict survival and one can compute hazard rates by taking the exponential of the coefficient. Table 6 reports these associated hazard rates computed from Table 4.

[Insert Table 4, 5, and 6 here]

Columns 1 and 2 of Table 4 indicate that FSAs significantly reduce the chance of exit and increase the likelihood of survival, but these results vary across subsidiaries in the North and the South. In the case of the North (columns 3 and 4), coefficients of Absorptive Capacity and Labor Productivity are insignificant while the coefficient of Profitability increases the survival of subsidiaries. This means an increase in Profitability of foreign subsidiaries in the North can reduce the probability of exit by 30% ($1-0.703$) in the case of column 4. In the case of the South (columns 5 and 6), coefficients of all three FSA variables are negative and significant, indicating that FSAs significantly increase the likelihood of survival of subsidiaries.

The positive effect of relative FSAs is larger for subsidiaries in the South than North. This means that in the case of column 6, an increase in Absorptive Capacity, Labor Productivity, and Profitability of foreign subsidiaries in the South can reduce the probability of exit by 38%, 7% and 55%, respectively. The same is true for the leadership dummies. For example, from Table 6 we can see that being a Profitability Leader can reduce the probability of exit by 50% (computed as $1.00-0.50$) in the North (column 4), but by 81% (computed as $1.00-0.187$) in the South (column 6). Similarly, being an Absorptive Capacity Leader and Labor Productivity Leader (in case of column 6) can reduce the probability of exit by 56% and 78%, respectively. These results support our first hypothesis (H1) that subsidiaries are more likely to survive in the South due to their stronger FSA vis-a-vis their local rivals. The results remain consistent and little changed by including moderating variables in columns 2, 4, and 6.

Regarding the effect of endogenous uncertainties, coefficients of both Country Risk and Institutional Distance are positive and significant in Northern locations (columns 3 and 4) increasing the hazard rate by 107% and 19% respectively, while insignificant in the South (columns 5 and 6). This finding fully supports our second hypothesis (H2a). This means that subsidiaries in the North are less likely to survive due to endogenous uncertainties while in Southern locations, subsidiaries are less likely to exit due to endogenous uncertainties. In the case of exogenous uncertainties, coefficients of Exchange Rate Risk, Production Cost Risk,

Demand Risk, and Financial Crisis are positive and significant in the case of the North (columns 3 and 4) and South (columns 5 and 6) except Financial Crisis, which is insignificant for the South (columns 5 and 6). Thus, survival of subsidiaries in both Northern and Southern locations are adversely influenced by exogenous uncertainties. This finding supports hypothesis H2b.

The coefficient of Home Country Diaspora is insignificant in the North (columns 3 and 4) while it is negative and significant in the South (columns 5 and 6). This result supports our third hypothesis (H3a) which states that immigrant Home Country Diaspora increases the chances of survival more in the South. The estimates suggest an increase in Home Country Diaspora can reduce the likelihood of exit in the South (column 6) by 44%. To determine the moderation effect of Home Country Diaspora on endogenous uncertainties, the coefficients of Home Country Diaspora \times Country Risk and Home Country Diaspora \times Institutional Distance are negative but insignificant in the North (column 4) while these are negatively significant in the South (column 6). This result partially supports our fourth hypothesis (H3b) which states that the immigrant diaspora helps firms to overcome the endogenous uncertainties and increase the chance of survival but only in the South. In the North, the negative effect of endogenous uncertainties on the survival of EMNCs is more dominant. Meanwhile, in the South (column 6), Home Country Diaspora helps firms to overcome the endogenous uncertainties and can reduce the likelihood of exit by 22% and 5% respectively.

The control variables have the expected signs, and their results are the following: The coefficients of Sunk Cost, ROA, Parent Size, Subsidiary Size, State Affiliation, China Dummy, Subsidiary Age, and Family Controlled are statistically negative in both North (columns 3 and 4) and South (columns 5 and 6) cases. This means subsidiaries' size, age, return on asset, the share of parent investment and size, and affiliation with state and family increase their chances of survival in both regions but these effects are more prominent in the South than the North. The coefficient of Equity Ownership is positively significant in the North (columns 3 and 4) while negatively significant in the South (columns 5 and 6). Table 4 also shows that subsidiaries in the North (columns 3 and 4) with asset seeking motives are less likely to survive but a similar subsidiary in the South (columns 5 and 6) will survive. This can be more clearly seen from Table 6, where subsidiaries with asset seeking motives have a hazard rate of 56% in the North (column 4), but in the South (column 6) being an asset seeking subsidiary reduces the probability of exit by 27%. The coefficients of Parent Experience in American Region and Parent Experience in European Region are negatively significant in the North (columns 3 and 4) and can reduce the likelihood of exit by 15% and

12% respectively. Meanwhile, the coefficients of Parent Experience in African Region, Parent Experience in Asian Region, and Parent Experience in Arab Region are negative and significant in the South (columns 5 and 6) and can reduce the likelihood of exit by 42%, 86%, and 96% respectively. The coefficient of Leverage is positive and significant in the North (columns 3 and 4) while insignificant in the South. It means an increase in debt lowers the chance of survival for subsidiaries in the North and increases the hazard rate by 40% (columns 4). Collectively, Table 6 shows that the hazard rate associated with better performance is higher in the North than in the South. More precisely better performance is associated with a decreased probability of exit of 20% in Northern locations and 55% in Southern locations.

In sum, our findings validate all our hypotheses. EMNCs with FSAs have a competitive edge over domestic rivals in the South and are more likely to survive than EMNCs in the North. Similarly, endogenous uncertainties are more likely to reduce the chance of survival of EMNCs in the North than South while exogenous uncertainties adversely influences the survival of EMNCs in both regions. A large immigrant diaspora increases the likelihood of survival of EMNCs in the South (than North) and also mitigates the impact of endogenous uncertainties for EMNCs in the South.

4.3. Robustness of results⁸

To determine the robustness of our findings, we undertook some more empirical analyses.

(i) *Can the data from India and China be pooled?* In our analysis reported in Table 4 we assume that Chinese and Indian firms behave similarly (and are pooled into one sample) but the two regions present different survival functions. To check the validity of this assumption, the survival function was estimated separately for Chinese and Indian firms, and the results are presented in the supplementary tables to this paper (Tables A3 and A4). The results of the main parameters of interest remain the same as reported in Table 4.

Further, two types of homogeneity tests were performed to determine whether Chinese and Indian firms operating in North and South regions behave differently and whether, within the same region, there is any difference between the survival of Chinese and Indian firms. These results are reported in Table A5. In case of column 1 (for Chinese firms), the null hypothesis is rejected in all four homogeneity tests, indicating that their survival functions are not the same across North and South regions. Similarly, for Indian firms (column 2), the significant probabilities of all four homogeneity tests indicate that the

⁸ We are grateful to two anonymous referees for these suggestions.

survival functions are not the same across both regions, thus providing statistical proof of heterogeneity of the Northern and Southern locations for the survival of EMNE subsidiaries.

We also explored whether Chinese and Indian firms operating in the North (column 3) region could be pooled together. The insignificant probabilities of homogeneity tests suggest the two types of firms can be pooled together and the survival functions of Chinese and Indian firms are similar. The same can be seen in the case of column 4 where insignificant probabilities of these homogeneity tests provide statistical proof of the existence of homogeneity among the survival functions of Chinese and Indian firms operating in the Southern region. Taken together, these results confirm that data on Chinese and Indian firms can be pooled within the same region but not across Northern and Southern locations.

(ii) *Do host-home country political relations influence the survival likelihood of EMNEs?* Following Duanmu, (2014), we consider bilateral relations with the US as most sensitive and vulnerable, which may influence the business environment for emerging markets' subsidiaries in the US. Empirically, we exclude the subsidiaries in US locations from our sample and re-estimate the model. The empirical findings remain consistent with the original results and confirm that our findings are not driven by these US subsidiaries. These results are reported in supplementary Tables A6 and A7.

(iii) *Does the measure of asset seeking influence survival?* We used an alternative measure of asset-seeking motive by following Li et al. (2012) and define a subsidiary with an asset-seeking motive if it operates in a host country that has an industry-specific technology advantage over its home country. This specific industry-specific technology advantage takes place if the number of patents in a particular industry (that a subsidiary belongs to) in the particular host country is higher than the number of patents in that particular industry in the home country. We re-estimate the model and the results are reported in supplementary Tables A8 and A9. Our findings remain consistent with the original results reported in tables 4 and 5.

(iv) *Does the international experience of the parent matter?* We included two additional control variables related to the parent firm. In particular, the total number of foreign subsidiaries of the parent firm is included to control the parent firm's learning experience in foreign markets, and the total number of subsidiaries in the host country is used to control the effect of the presence of sister subsidiaries in the country. Results reported in Tables A10 and A11 show that the effect of both variables is statistically insignificant. Furthermore, the inclusion of these additional controls did not change the overall results which remain consistent with those reported in Table 4.

5. Discussion and Conclusion

Our study highlights a North-South divide in the survival of Chinese and Indian foreign subsidiaries because investments in the North and South offer different risk-reward bundles. Drawing on data from 747 foreign subsidiaries from China and India, we provide evidence of the factors associated with subsidiary survival in the Northern and Southern locations and show that they are quite different. Thus, conclusions drawn from the analysis of survival of EMNEs, without considering the heterogeneity of the location, can be seriously misleading. Furthermore, our empirical analysis contributes to the existing international business literature in many ways.

Our results highlight the role of relative FSAs in the survival of subsidiaries in different locations. Investments in the North benefit from a highly developed institutional framework that promotes efficient operations; however, it is also subject to more intense market competitive pressure due to the stronger technological and managerial abilities of domestic firms (Elia et al., 2020). In Southern locations, Chinese and Indian firms enjoy competitive advantages and leadership in several areas (Korbi et al., 2021). The low competitive pressure due to weaker FSAs of local firms makes it easier for EMNCs to develop market power and earn profit (Getachew and Beamish, 2017). There is little domestic competition that can imitate away these advantages. In the North, relative profitability is higher on account of cost leadership but, as noted in Section 2.1, these can be easily imitated by Northern competitors by establishing similar supply chains. However, our findings contradict the studies examining the effects of FSAs on firm survival across contrasting institutional environments (Gu et al. 2018; Getchew and Beamish, 2017). These studies show that investing in developed countries could increase firms' survival. We attribute the difference in results to our use of relative FSAs that precisely measure firms' ownership advantages compared to competing firms in that location.

Against the backdrop of rewards, exogenous and endogenous sources of uncertainty also define the switch/stay option on subsidiary investments. An increase in uncertainty (whatever the source) triggers a switch response and reduces the chances of survival (Tong and Li, 2008). From the real options perspective, it can also be suggested that EMNCs are more likely to survive when risk is managed effectively (uncertainty is resolved favorably). The financial crisis of 2008 triggered exchange rate volatility, shrank demand, and even made the survival of EMNCs difficult in the North (Athreya et al., 2021). We found very high hazard rates for these factors with the financial crisis increasing the probability of exit by

86%. Endogenous risk also presents high hazard in Northern locations and increases the probability of exit. This is because it is easier for EMNCs to exit the market when formal institutions are well developed, so both endogenous and exogenous risk trigger exits.

The institutional similarity between an EMNC's home market and Southern locations is reflected in the lack of a clear hazard associated with endogenous risks in the South. Learning from the home environment enhances the subsidiary abilities of adaptability and learning the market conditions (Bordilovska & Ugwu, 2018) which, in turn, enable them to deal with the risks arising from the lack (or absence) of market-supporting institutions and availing opportunities arising from the decreased competitive intensity.

Our results also show that home country diaspora is an endogenous risk-mitigating factor in host locations in the South. This result is in line with earlier studies that acknowledge the immigrant community as a ready market available to foreign firms in host locations (Shukla and Cantwell 2018; Foad, 2012). We argue that immigrants' insider knowledge and information about customers, suppliers, producers, and distributors, enables EMNCs to mitigate the endogenous risks in host markets and are more important for firms in locations with weak institutions which help longer survival. From this perspective, the information exchange and collaboration between home country diaspora and EMNCs helps to reduce operational barriers and risks in countries of the South. In contrast, parent learning from the experience of running other subsidiaries in the region is a mitigating factor with a much lower effect on the probability of exit. In Northern locations parent experience reduces the probability of exit by 15% for the American region and 12% for the European region, while in Southern locations this effect is larger (42% for Africa, 85% for Asia and 62% for Arab countries).

5.1. Theoretical implications

The location boundedness of FSAs emphasizes the transferability of FSAs across locations and suggests that some FSAs remain sticky to certain locations and require significant adaption to be used in other locations (Rugman and Verbeke, 2003; Narula, 2012). Earlier studies generally consider contextually embedded factors such as production-related inputs (low-cost capital, labor, and raw material) state-support, contextual knowledge, and local connections as location-bounded FSAs of EMNEs (Suter et al., 2021; Bilgili, Kedia, & Bilgili, 2016; Bhaumik et al., 2016; Wang, Hong, Kafouros, & Boateng, 2012; Rugman, 2009; Cuervo-Cazurra et al., 2007). Many of these strengths are 'location bound FSAs' (Rugman and Verbeke, 2003) which suggests EMNCs cannot be cost-efficient in foreign

markets because it is difficult to transfer the market position and the relationships with the home government abroad. Non-location-bound FSAs that are transferable to other locations do help EMNCs to expand overseas (Narula, 2012). Nevertheless, it remains difficult to explain how EMNCs possessing transferable FSAs can survive longer in one location compared to another.

We extend this line of thinking by showing that location boundedness is also influenced by the capabilities of host country firms. Our identification of relative FSAs indicates that transferable ownership advantages are valuable in certain locations where these capabilities are superior as compared to their rival firms. Recognizing that FSAs are relative and their effectiveness depends on the institutional environment would lead to a nuanced understanding of the contrasting survival pattern of EMNCs across North and South. In other words, the utilization of relative FSAs helps in better understanding the competitiveness of EMNCs across different locations, which is now a leading issue in the study of EMNCs.

Our study also outlines an alternative measurement of FSAs. In contrast to earlier studies (James et al., 2018; Gu et al., 2018; He et al., 2019) that use absolute measures of FSAs (such as absolute values of R&D expenditure and technological innovation to reflect firm's absorptive capability), our approach of measuring FSA, is based on the relative strength of FSAs of EMNCs as compared to competing firms in the host location. This not only provides an accurate picture but also directly relates to the survival likelihood of firms in the host market.

Lastly, our findings on the moderating effect of diaspora on the likelihood of firm survival are consistent with Estrin et al. (2018b) and Buch et al. (2006). By examining the contingency effect of the diaspora in EMNCs' survival, we respond to research calls for an investigation of the conditions delimiting the EMNCs' survival phenomenon (Adarkwah and Malonaes, 2020; Ozkan, 2020).

5.2. Managerial implications

The findings of the study provide important insights for practitioners. First, the study highlights the significance of relative FSAs to managers. FSAs do not bestow competitive advantage equally across all foreign markets. EMNCs' managers, when selecting a foreign location, in addition to focusing on their motivations for outward investment, must also be cognizant of the relative strength of their FSAs. Second, the nature and extent of endogenous risks differ across North and South (Buckley et al., 2020). Dealing with endogenous risks is a

component of the market and competition analysis (Ozkan, 2020). EMNE managers must pay greater attention to the foreign market risk environment scanning and designing strategies in order to deal with endogenous risks based on their FSAs. Apart from identification, a difficult task for international managers is to manage endogenous risk in foreign markets. A common strategy is establishing good relationships with host governments through deploying resources to lobbying, campaign contributions, and appointing politically connected top executives (Cui and Xu, 2019; Sheng et al., 2011). Our analysis suggests that enlisting the support of the immigrant diaspora can also be a viable strategy to mitigate endogenous risks. Such strategies have been used by technology firms in Silicon Valley that extended operations in Taiwan and India, but to the best of our knowledge it has not been highlighted among EMNCs.

Lastly, the findings of this study also offer implications for policymakers in the South (host governments) that are trying to build competencies of their domestic firms and desire to encourage domestic firms to venture out in foreign markets. As our findings indicate that EMNCs possess superior FSAs compared to domestic firms in the South, there is a strong need to increase the absorptive capacities of domestic firms so that they can acquire the assets, technology, and knowledge about superior human resources and managerial practices from EMNCs which are essential to becoming global firms.

5.3. Limitations and future research implications

Like any empirical study, this work also has some limitations, which offer opportunities for future research. We cannot distinguish between an exit decision driven by the inability to compete in the foreign market (weaker FSAs) or the strategic reconfiguration of resources. Future research using survey data could gather such information and examine how exits with two such contrasting reasons vary across locations. Moreover, we acknowledge that immigrant diaspora is not the only practice foreign firms adopt to reduce endogenous risk; there are a number of other practices that serve the same purpose (Shapiro, Vecino, & Li, 2018). Existing literature indicates that firms may adopt various risk-reducing strategies simultaneously (e.g., Adarkwah and Malonaes, 2020), but a comparative analysis is lacking. As we do not include the impact of other risk-reducing strategies in this study, future research could compare the effectiveness of different approaches such as global distribution channels, and informal networks.

Prior studies such as Duanmu (2014) show how the home-host government relationship influences the host market institutional environment which, in turn, determines

the survival of foreign investment. As globalization unfolds and the economic interdependence of countries is ever increasing, bilateral diplomatic relationships play an important role (Buckley et al., 2020). The significance of bilateral relationships for firm survival in the host market has become more apparent in the recent US-China trade war, where bilateral relations outweigh the importance of FSAs of Chinese MNCs. In this study, though we re-estimate the results without the firms operating in the US, we could not directly account for risk arising from home-host bilateral relationships. One promising line of future research could center on the role of home-host government relationships in facilitating or hampering the survival of EMNCs in foreign markets.

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Table 1: Variable Definitions

	Variables	Definitions
Firm Survival	<i>Instant Hazard Rate</i>	Instant hazard rates based on duration (difference between current year and founding year) and event (exit dummy which takes 1 for complete withdrawal, 0 otherwise) variable.
	<i>Absorptive Capacity</i>	R&D expenditures divided by total revenues.
Firm-specific Advantages	<i>Absorptive Capacity Leader</i>	Dummy takes 1 if the absorptive capacity ratio of a subsidiary is greater than its industry average in that particular host country.
	<i>Profitability</i>	Earnings before interest, taxes, depreciation and amortization (EBITDA) divided by assets.
	<i>Profitability Leader</i>	Dummy takes 1 if the profitability ratio of a subsidiary is greater than its industry average in that particular host country.
	<i>Labor Productivity</i>	Revenues divided by total number of employees.
	<i>Labor Productivity Leader</i>	Dummy takes 1 if the labor productivity ratio of a subsidiary is greater than its industry average in that particular host country.
Endogenous Risk	<i>Country Risk</i>	As Rule of Law WGI indicator of the host country in reverse order.
	<i>Institutional Distance</i>	The Kaufmann index from the WGI.
Exogenous Risk	<i>Exchange Rate Risk</i>	Volatility of Foreign Exchange Rate is measured.
	<i>Production Cost Risk</i>	Standard deviation of unit labor cost series of respective host country over the period of five years preceding the current year.
	<i>Demand Risk</i>	Standard deviation of GDP series of the individual host country over the five years preceding the current year.
	<i>Financial Crisis</i>	Dummy 1 for year 2008 and above, 0 otherwise.
Immigrant Diaspora	<i>Home Country Diaspora</i>	Ratio of the total number of immigrants from China and India residing in the host country to the total population of the respective host country.
Control	<i>Sunk Cost</i>	Sale of foreign subsidiary divided by sale of its parent firm.
	<i>ROA</i>	Net income divided by total assets of a subsidiary.
	<i>Equity Ownership</i>	Natural log of share of ownership by the parent firm in foreign subsidiary.
	<i>Asset Seeking Motive</i>	Dummy takes 1 if a subsidiary belongs to technologically advanced sectors, for instance, software-IT, automobile, chemicals, electronics, iron & steels, pharmaceuticals, and telecommunication sectors.
	<i>Parent Size</i>	Natural log of number of employees of parent firm.
	<i>Parent Experience in American Region</i>	Number of foreign subsidiaries in American Region.
	<i>Parent Experience in European Region</i>	Number of foreign subsidiaries in European Region.
	<i>Parent Experience in African Region</i>	Number of foreign subsidiaries in African Region.
	<i>Parent Experience in Asian Region</i>	Number of foreign subsidiaries in Asian Region.
	<i>Parent Experience in Arab Region</i>	Number of foreign subsidiaries in Arab Region.
	<i>Subsidiary Size</i>	Natural log of number of employees of subsidiary.
	<i>Leverage</i>	Debt to asset ratio.
	<i>State Affiliation</i>	Dummy takes 1 if a subsidiary belongs to state-owned parent firm.
	<i>China Dummy</i>	Dummy takes 1 if a subsidiary belongs to Chinese parent firms.
	<i>Subsidiary Age</i>	Difference between current year and founding year.
<i>Family Controlled</i>	Dummy takes 1 if a subsidiary is controlled by one family or sets of families.	

Table 2: Descriptive

Variable	North					South				
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
Divestment	5,848	0.031	0.172	0.000	1.000	2,979	0.021	0.143	0.000	1.000
Absorptive Capacity	5,848	0.371	0.342	0.000	2.500	2,979	0.273	0.505	0.000	2.200
Absorptive Capacity Leader	5,848	0.669	0.471	0.000	1.000	2,979	0.704	0.457	0.000	1.000
Profitability	5,848	0.198	0.456	0.000	2.983	2,979	0.210	0.620	0.000	3.450
Profitability Leader	5,848	0.801	0.375	0.000	1.000	2,979	0.810	0.392	0.000	1.000
Labor Productivity	5,848	9.350	9.461	0.000	40.979	2,979	9.944	9.758	0.000	42.837
Labor Productivity Leader	5,848	0.290	0.454	0.000	1.000	2,979	0.325	0.468	0.000	1.000
Country Risk	5,848	0.647	0.927	-2.114	2.800	2,979	0.494	0.954	-1.873	2.230
Institutional Distance	5,848	0.635	4.947	-15.300	19.000	2,979	0.097	5.117	-14.300	18.000
Exchange Rate Risk	5,848	2.182	1.353	0.000	7.856	2,979	2.050	1.229	0.000	7.312
Production Cost Risk	5,848	1.127	1.732	0.000	10.642	2,979	1.073	1.591	0.000	9.217
Demand Risk	5,848	0.092	0.131	0.000	2.034	2,979	0.085	0.079	0.000	1.044
Financial Crisis	5,848	0.659	0.474	0.000	1.000	2,979	0.713	0.452	0.000	1.000
Home Country Diaspora	5,848	0.014	0.013	0.000	0.052	2,979	0.030	0.031	0.000	0.652
Sunk Cost	5,848	0.007	0.018	0.000	0.130	2,979	0.008	0.023	0.000	0.190
ROA	5,848	0.782	0.782	0.000	4.591	2,979	0.897	0.886	0.000	4.800
Equity Ownership	5,848	-0.847	0.431	-2.708	0.105	2,979	-0.962	0.395	-2.120	-0.315
Asset Seeking Motive	5,848	0.708	0.455	0.000	1.000	2,979	0.739	0.439	0.000	1.000
Parent Size	5,848	5.027	0.580	3.784	6.184	2,979	5.172	0.651	3.526	6.223
Parent Experience in American Region	5,848	15.683	9.342	0.000	86.000	-	-	-	-	-
Parent Experience in European Region	5,848	14.324	9.863	0.000	89.000	-	-	-	-	-
Parent Experience in African Region	-	-	-	-	-	2,979	9.327	4.485	2.000	21.000
Parent Experience in Asian Region	-	-	-	-	-	2,979	7.399	3.595	2.000	16.000
Parent Experience in Arab Region	-	-	-	-	-	2,979	5.473	3.063	0.000	13.000
Subsidiary Size	5,848	3.111	0.563	1.664	4.218	2,979	3.252	0.593	1.905	4.256
Leverage	5,848	0.730	0.092	0.134	0.856	2,979	0.728	0.108	0.126	0.831
State Affiliation	5,848	0.387	0.487	0.000	1.000	2,979	0.126	0.332	0.000	1.000
China Dummy	5,848	0.575	0.494	0.000	1.000	2,979	0.545	0.498	0.000	1.000
Subsidiary Age	5,848	10.790	6.412	1.000	36.000	2,979	14.178	6.219	1.000	36.000
Family Controlled	5,848	0.120	0.325	0.000	1.000	2,979	0.140	0.347	0.000	1.000

Table 3: Correlation

		Panel A: North																										
		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	26	27
1	Divestment	1.00																										
2	Absorptive Capacity	0.03	1.00																									
3	Absorptive Capacity Leader	-0.02	0.05	1.00																								
4	Profitability	-0.06	0.06	-	1.00																							
5	Profitability Leader	-0.08	-0.07	0.11	-0.12	1.00																						
6	Labor Productivity	0.00	0.05	0.02	-0.03	-0.04	1.00																					
7	Productivity Leader	-0.03	0.02	0.02	-0.07	-0.04	0.02	1.00																				
8	Asset Seeking Motive	-0.05	-0.02	0.06	-0.05	0.06	-	0.01	1.00																			
9	Country Risk	0.04	0.07	0.02	-0.02	-0.08	-	-0.01	0.00	1.00																		
10	Institutional Distance	0.01	0.04	0.13	0.05	0.09	-	-0.03	-0.02	0.00	1.00																	
11	Exchange Rate Risk	0.05	-0.03	-	-0.05	0.01	0.01	0.01	0.02	0.10	-0.11	1.00																
12	Production Cost Risk	0.05	0.07	0.07	-0.02	-0.09	0.01	-0.02	0.01	0.00	0.01	0.01	1.00															
13	Demand Risk	0.02	0.07	0.05	0.04	0.06	0.00	0.00	0.01	-	0.08	-0.14	-	1.00														
14	Financial Crisis	0.08	0.06	0.03	-0.03	-0.01	0.02	0.02	0.00	-	0.01	0.00	0.00	-	0.03	1.00												
15	Home Country Diaspora Parent	-0.04	0.04	-	-0.04	-0.06	0.01	0.01	-0.02	-	-0.05	0.00	0.01	0.00	0.02	1.00												
16	Experience in American Region Parent	-0.11	0.00	0.03	-0.08	0.10	0.02	-0.01	0.11	-	-0.02	-0.09	-	0.02	0.03	-	1.00											
17	Experience in European Region Parent	-0.04	0.03	0.02	0.00	0.03	0.08	-0.07	0.00	-	0.02	-0.07	-	0.01	0.03	-	0.03	1.00										
18	Sunk Cost	-0.03	0.04	0.02	-0.02	-0.08	0.03	-0.02	-0.02	0.00	-0.02	-0.02	0.01	0.07	0.00	0.03	0.03	0.00	1.00									
19	ROA	-0.03	-0.05	0.06	-0.02	0.19	0.01	-0.01	0.02	0.01	-0.05	0.01	0.01	-0.08	0.03	0.01	0.04	0.13	0.00	1.00								
20	Equity Ownership	-0.11	-0.05	0.01	-0.11	-0.02	0.03	0.03	0.08	-	-0.01	-0.07	-	-0.03	-0.03	0.02	0.05	0.09	0.04	-0.08	1.00							
21	Parent Size	-0.12	-0.06	0.02	-0.09	0.12	0.02	-0.01	0.05	-	0.01	-0.01	-	-0.02	0.07	0.02	0.00	0.13	0.02	-0.03	0.09	1.00						

22	Subsidiary Size	-0.07	-0.02	0.03	-0.09	0.06	0.09	0.01	-0.01	-	-0.01	0.00	-	-0.03	0.08	0.06	0.05	0.03	0.01	-0.04	0.03	0.07	1.00										
23	Leverage	-0.01	0.02	0.01	-0.04	-0.01	0.10	0.10	-0.02	-	0.00	0.01	-	-0.02	0.00	0.02	-0.05	-0.07	0.00	-0.02	-0.01	-	0.00	1.00									
24	State Affiliation	-0.05	0.03	0.07	-0.02	0.04	0.02	0.02	0.06	0.02	-0.02	-0.01	0.03	0.03	-0.01	0.05	0.09	0.00	0.10	0.08	0.01	0.08	0.04	-0.02	1.00								
25	China Dummy	-0.01	-0.03	0.01	0.02	0.06	0.01	-0.01	0.08	0.04	0.00	0.00	-	0.00	-0.08	-	0.03	0.10	0.02	-0.10	0.02	0.02	0.01	-0.03	0.01	1.00							
26	Subsidiary Age	-0.04	0.00	0.01	-0.07	0.04	0.02	0.03	0.06	-	-0.05	0.00	-	0.00	0.01	0.02	-0.06	0.00	0.06	-0.01	0.08	0.00	-0.04	0.00	-	-0.01	1.00						
27	Family Controlled	0.01	-0.03	-	0.04	-0.02	0.01	0.01	-0.10	-	0.02	-0.02	-	0.04	0.02	0.00	-0.03	0.07	0.04	0.01	0.00	0.00	0.02	0.02	0.02	-0.07	0.04	1.00					

Panel B: South

		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	26	27							
1	Divestment	1.00																																	
2	Absorptive Capacity	-0.02	1.00																																
3	Absorptive Capacity Leader	-0.02	0.02	1.00																															
4	Profitability	-0.02	-0.02	0.02	1.00																														
5	Profitability Leader	-0.07	0.00	0.01	0.09	1.00																													
6	Labor Productivity	-0.04	0.11	0.02	-0.01	0.00	1.00																												
7	Labor Productivity Leader	-0.02	0.04	0.04	0.03	0.02	0.11	1.00																											
8	Asset Seeking Motive	-0.03	0.01	0.06	0.01	0.07	-	0.00	1.00																										
9	Country Risk	0.02	0.03	0.06	0.00	0.10	-	-0.04	0.03	1.00																									
10	Institutional Distance	-0.03	0.06	0.03	0.05	0.11	0.01	0.00	0.07	-	1.00																								
11	Exchange Rate Risk	0.02	-0.07	-	-0.02	0.04	0.02	-0.02	-0.03	0.10	0.11	1.00																							
12	Production Cost Risk	0.01	-0.01	0.02	-0.03	0.20	-	-0.01	-0.08	0.03	0.02	0.10	1.00																						
13	Demand Risk	0.02	-0.04	-	-0.02	0.08	-	-0.02	-0.07	0.02	0.12	-0.11	-	1.00																					
14	Financial Crisis	0.07	0.02	-	-0.03	-0.02	0.05	0.02	-0.02	0.04	-0.03	0.04	0.02	0.01	1.00																				
15	Home Country Diaspora Parent	-0.02	0.04	0.02	0.02	-0.02	0.13	0.03	0.02	0.02	-0.01	-0.02	0.01	-0.04	0.00	1.00																			
16	Experience in African Region	-0.14	-0.15	0.06	0.00	0.06	-	-0.01	0.02	0.05	-0.03	0.01	0.04	0.00	0.00	0.01	1.00																		

Table 4: Cox proportional hazard model coefficients (- sign indicates high survival)

VARIABLES	Overall		North		South	
	1	2	3	4	5	6
Firm Specific Advantages						
<i>Absorptive Capacity</i>	-0.383*** (0.121)	-0.399*** (0.108)	-0.369 (0.280)	-0.359 (0.299)	-0.436*** (0.136)	-0.483*** (0.138)
<i>Absorptive Capacity Leader</i>	-0.321* (0.153)	-0.345* (0.149)	-0.209 (0.165)	-0.280 (0.179)	-0.895** (0.381)	-0.812** (0.302)
<i>Labor Productivity</i>	-0.038*** (0.010)	-0.038*** (0.008)	-0.015 (0.011)	-0.014 (0.018)	-0.093*** (0.024)	-0.069*** (0.020)
<i>Labor Productivity Leader</i>	-0.736*** (0.231)	-0.731*** (0.223)	-0.359 (0.266)	-0.342 (0.278)	-1.805*** (0.559)	-1.513*** (0.535)
<i>Profitability</i>	-0.364*** (0.109)	-0.372*** (0.104)	-0.354*** (0.123)	-0.349** (0.140)	-0.708** (0.266)	-0.798*** (0.226)
<i>Profitability Leader</i>	-0.657*** (0.162)	-0.670*** (0.172)	-0.800*** (0.192)	-0.695*** (0.210)	-1.713*** (0.379)	-1.677*** (0.368)
Endogenous & Exogenous Risks						
<i>Country Risk</i>	0.843* (0.415)	0.878* (0.423)	0.712* (0.395)	0.729* (0.402)	0.690 (0.669)	0.689 (0.768)
<i>Institutional Distance</i>	0.105** (0.044)	0.147** (0.051)	0.119* (0.055)	0.174** (0.069)	0.328 (0.335)	0.412 (0.362)
<i>Exchange Rate Risk</i>	0.394*** (0.062)	0.379*** (0.045)	0.175*** (0.057)	0.089** (0.034)	0.049* (0.027)	0.038* (0.019)
<i>Production Cost Risk</i>	0.080* (0.031)	0.088** (0.034)	0.174** (0.064)	0.155*** (0.037)	0.035* (0.019)	0.050* (0.028)
<i>Demand Risk</i>	1.044*** (0.296)	1.089*** (0.198)	0.452*** (0.040)	0.588*** (0.060)	0.097* (0.047)	0.077* (0.039)
<i>Financial Crisis</i>	1.202** (0.433)	1.199** (0.415)	0.594** (0.231)	0.620** (0.246)	0.785 (0.537)	0.499 (0.578)
Endogenous Risk Mitigating factors						
<i>Home Country Diaspora</i>	-0.125** (0.055)	-0.050* (0.023)	-0.264 (0.591)	-0.168 (0.299)	-0.274** (0.104)	-0.580** (0.216)
<i>Home Country Diaspora × Country Risk</i>		-0.119* (0.061)		-0.016 (0.062)		-0.248* (0.120)
<i>Home Country Diaspora × Institutional Distance</i>		-0.007* (0.004)		-0.014 (0.019)		-0.046* (0.022)
Controls						
<i>Sunk Cost</i>	-7.069* (3.498)	-6.339** (2.272)	-5.150*** (1.400)	-4.938** (1.699)	-5.671*** (1.764)	-6.113*** (1.262)
ROA	-0.613*** (0.091)	-0.639*** (0.088)	-0.397** (0.171)	-0.219* (0.088)	-0.810*** (0.190)	-0.799*** (0.202)
<i>Equity Ownership</i>	0.216*** (0.033)	-0.233*** (0.043)	0.445** (0.168)	0.310* (0.119)	-1.325*** (0.466)	-1.513*** (0.501)
<i>Asset-seeking Motive</i>	0.319* (0.162)	0.362* (0.172)	0.481** (0.192)	0.449** (0.210)	-0.394* (0.379)	-0.318* (0.368)

	(0.148)	(0.162)	(0.175)	(0.159)	(0.209)	(0.160)
<i>Parent Size</i>	-4.626***	-4.969***	-6.442***	-5.570***	-4.633***	-6.199***
	(0.367)	(0.388)	(0.596)	(0.638)	(1.136)	(1.510)
<i>Parent Experience in American Region</i>	0.057**	-0.049*	-0.159*	-0.168*	-	-
	(0.026)	(0.024)	(0.087)	(0.080)		
<i>Parent Experience in European Region</i>	0.069*	-0.080*	0.142**	-0.128*	-	-
	(0.027)	(0.042)	(0.052)	(0.068)		
<i>Parent Experience in African Region</i>	-0.163***	-0.240**	-	-	-0.608*	-0.540*
	(0.051)	(0.092)			(0.326)	(0.249)
<i>Parent Experience in Asian Region</i>	-0.478***	-0.538***	-	-	-2.015***	-1.912**
	(0.054)	(0.091)			(0.675)	(0.761)
<i>Parent Experience in Arab Region</i>	0.239**	-0.188*	-	-	-2.773***	-3.268***
	(0.092)	(0.109)			(0.690)	(0.801)
<i>Subsidiary Size</i>	-3.907***	-4.279***	-4.299***	-3.573***	-3.992***	-4.809***
	(0.423)	(0.442)	(0.612)	(0.660)	(1.353)	(1.700)
<i>Leverage</i>	0.806*	0.519**	0.248*	0.342*	-0.679	0.668
	(0.436)	(0.199)	(0.104)	(0.168)	(1.834)	(1.899)
<i>State Affiliation</i>	-1.432***	-1.313***	-0.590***	-0.722***	-2.719***	-2.162***
	(0.205)	(0.212)	(0.198)	(0.202)	(0.577)	(0.672)
<i>China Dummy</i>	-0.356*	-0.562***	-0.529*	-0.479*	-0.305*	-0.525*
	(0.199)	(0.202)	(0.256)	(0.238)	(0.146)	(0.296)
<i>Subsidiary Age</i>	-0.127***	-0.139***	-0.130***	-0.199***	-0.182***	-0.209***
	(0.012)	(0.009)	(0.015)	(0.012)	(0.031)	(0.025)
<i>Family Controlled</i>	-0.623***	-0.644***	-0.533**	-0.529**	-0.926**	-0.919**
	(0.219)	(0.215)	(0.260)	(0.210)	(0.365)	(0.345)
Observations	8,827	8,827	5,848	5,848	2,979	2,979
Exited cases	241	241	179	179	62	62
Log Likelihood	-1520.25	-1519.72	-1173.58	-1033.22	-278.73	-276.47
Chi-square	1043.2***	1044.2***	573.3***	862.1***	321.6***	328.3***

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5: Homogeneity tests: test of equality of survival functions across North and South group

	North Vs South
Log-Rank Test	10.03 (0.0015)
Wilcoxon Test	30.537 (0.0000)
Peto–Peto Prentice	10.47 (0.0012)
Tarone Ware	17.41 (0.0000)

P-values are in parentheses. Null Hypothesis is that survival functions are same across groups, i.e., North and South. It is rejected in all four homogeneity tests, indicating that survival functions are not same across groups.

Table 6: Hazard Rates

VARIABLES	(1) Overall	(2) North	(3) South
Firm-specific Advantages			
<i>Absorptive Capacity</i>	0.670*** (0.140)	0.702 (0.639)	0.616*** (0.043)
<i>Absorptive Capacity Leader</i>	0.708** (0.262)	0.760 (0.522)	0.443*** (0.078)
<i>Labor Productivity</i>	0.962*** (0.010)	0.986 (0.759)	0.933** (0.385)
<i>Labor Productivity Leader</i>	0.482*** (0.012)	0.712 (0.699)	0.220*** (0.020)
<i>Profitability</i>	0.690*** (0.020)	0.703* (0.298)	0.450*** (0.070)
<i>Profitability Leader</i>	0.511** (0.204)	0.502* (0.209)	0.187** (0.074)
Endogenous & Exogenous Risks			
<i>Country Risk</i>	2.406* (1.265)	2.073** (0.797)	1.992 (1.529)
<i>Institutional Distance</i>	1.159*** (0.012)	1.190*** (0.019)	1.510 (1.838)
<i>Exchange Rate Risk</i>	1.460*** (0.020)	1.093*** (0.011)	1.038* (0.513)
<i>Production Cost Risk</i>	1.092*** (0.121)	1.168*** (0.138)	1.051* (0.460)
<i>Demand Risk</i>	2.971*** (0.232)	1.803*** (0.260)	1.080** (0.401)
<i>Financial Crisis</i>	3.316*** (1.050)	1.858** (0.704)	1.647 (1.529)
Risk Mitigating Factor			
<i>Home Country Diaspora</i>	0.951** (0.365)	0.845 (0.778)	0.559** (0.208)
<i>Home Country Diaspora × Country Risk</i>	0.887* (0.361)	0.984 (0.660)	0.780** (0.309)
<i>Home Country Diaspora × Institutional Distance</i>	0.993** (0.391)	0.986 (0.883)	0.955* (0.426)
Controls			
<i>Sunk Cost</i>	0.002*** (0.001)	0.007*** (0.002)	0.002*** (0.000)
ROA	0.527*** (0.018)	0.803*** (0.120)	0.449*** (0.030)
<i>Equity Ownership</i>	0.792* (0.398)	1.363* (0.680)	0.220*** (0.020)
<i>Asset-seeking Motive</i>	1.436* (0.761)	1.566** (0.621)	0.727* (0.370)

<i>Parent Size</i>	0.007*** (0.001)	0.003*** (0.001)	0.002*** (0.001)
<i>Parent Experience in American Region</i>	0.952** (0.354)	0.845*** (0.148)	-
<i>Parent Experience in European Region</i>	0.923* (0.489)	0.880** (0.331)	-
<i>Parent Experience in African Region</i>	0.786*** (0.080)	-	0.582** (0.222)
<i>Parent Experience in Asian Region</i>	0.584*** (0.058)	-	0.147*** (0.010)
<i>Parent Experience in Arab Region</i>	0.188** (0.070)	-	0.038*** (0.010)
<i>Subsidiary Size</i>	0.013*** (0.002)	0.028*** (0.003)	0.008*** (0.002)
<i>Leverage</i>	1.680* (0.689)	1.407** (0.550)	1.950 (1.999)
<i>State Affiliation</i>	0.269*** (0.055)	0.485*** (0.101)	0.115*** (0.008)
<i>China Dummy</i>	0.570** (0.201)	0.619** (0.224)	0.591* (0.320)
<i>Subsidiary Age</i>	0.870*** (0.010)	0.820*** (0.010)	0.811*** (0.008)
<i>Family Controlled</i>	0.525*** (0.110)	0.589** (0.231)	0.400*** (0.060)
Observations	8,827	5,848	2,979
Exited cases	241	179	62
Log Likelihood	-1519.72	-1033.22	-276.47
Chi-square	1044.2***	862.1***	328.3***

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

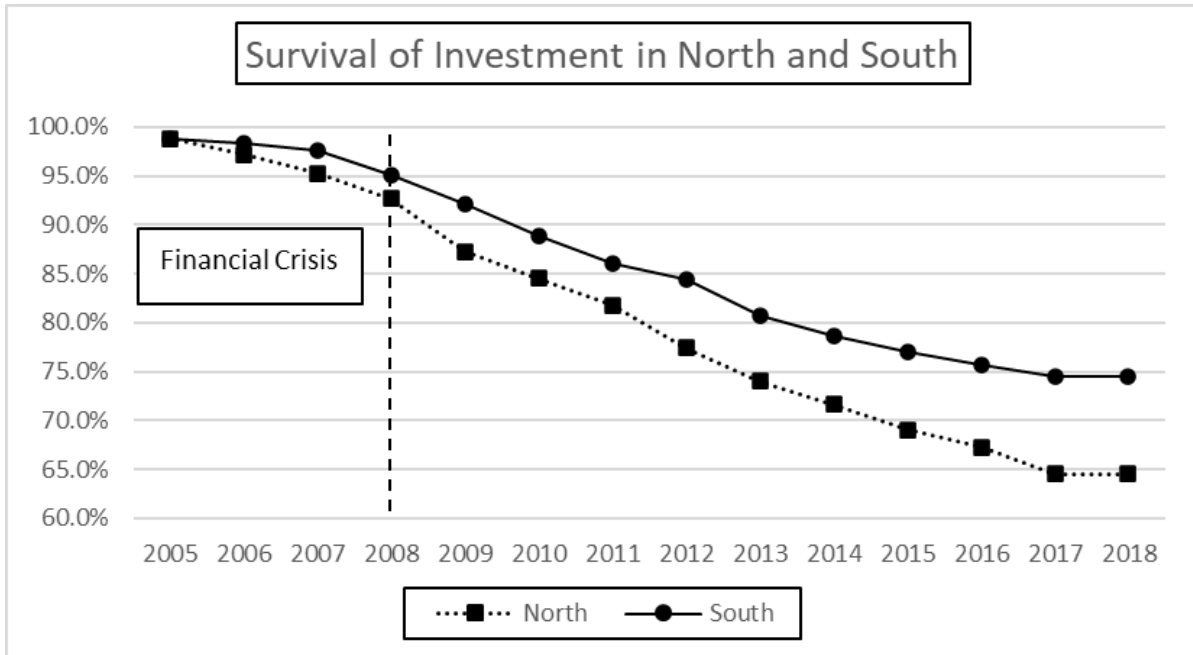


Figure 1: EMNCs' survival rate in North and South