



# Temporal and Spatial Constructs in Service Firms' Internationalization Patterns: The Determinants of the Accelerated Growth of Emerging MNEs

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## ABSTRACT

The recent years have witnessed an unprecedented surge of Emerging Multinational Enterprises (EMNEs), i.e. firms from the emerging economies that have started internationalization very late and have expanded abroad in a rather accelerated fashion.

In particular, pace and international diversification emerge as distinctive features of service EMNEs' successful internationalization patterns, inducing scholars to question the applicability of traditional internationalization theories to EMNEs. The Linkage–Leverage–Learning (LLL) Model and the springboard perspective identified some of the critical EMNEs uniqueness and investigated potential antecedents of their abnormal patterns. Nevertheless, previous contributions neglected to provide a solid empirical base for measuring spatio-temporal dimensions of EMNEs' internationalization.

This paper aims to empirically investigate the dimensions affecting the pace at which EMNEs enlarge their geographic scope, by performing OLS regression analysis.

The main outcomes demonstrate the crucial role of cumulative benefits from inward internationalization and inter-regional diversification strategies in boosting EMNEs' overseas expansion, in opposition to traditional MNEs (TMNEs). The results corroborate some assumptions of emerging theories on EMNEs, and provide insight for extending traditional MNEs theories by rethinking concepts, relations and causalities.

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## 1. Introduction

Since the 1990s, the global competitive environment is growingly populated by multinational enterprises (MNEs) originating in emerging economies and developing countries such as China, India, Brazil, Turkey, Mexico, Chile and Indonesia (Child and Rodrigues, 2005; Moghaddam et al., 2014; Verma et al., 2011).

This happens particularly in regulated service industries, where suddenly firms have the opportunity to participate in government privatization programs in high-growth businesses that opened after liberalization (Yaprak and Karademir, 2010). In addition, some MNEs from emerging economies have been growingly making acquisitions and expanding their presence in the infrastructure industries and other services sectors of rich countries (Guillén and García-Canal, 2009).

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The new species of MNEs, commonly labeled as Emerging Multinational Enterprises (EMNEs), includes firms from the emerging economies that have started internationalization very late (Luo and Tung, 2007) and have expanded abroad in a rather accelerated fashion (Li, 2007, 2010; Mathews and Zander, 2007).

Contrary to Traditional MNEs (TMNEs) from developed economies internationalizing along with an incremental and sequential established chain (Johanson and Vahlne, 1977; 1990), EMNEs pursue catching-up and accelerated foreign pathways because of their vision, mission and strategic ambitions (Li, 2003; Mathews, 2006). Such enterprises, largely due to their latecomer status and need for asset-exploring, launch their initial major Foreign Direct Investment (FDI) projects in culturally distant countries (Li, 2007) and rapidly achieve a wide geographic scope (Guillén and García-Canal, 2009).

The unique characteristics of EMNEs' foreign expansion patterns stimulate the ongoing academic debate questioning the applicability of traditional internationalization theories and models to them (Child and Rodrigues, 2005; Gammeltoft et al., 2010; Kumar et al., 2013; Li, 2007, 2010).

In this vein, Li (2007) argues the incompleteness of extant MNE theories in their coverage of spatial and temporal dimensions of internationalization and identifies the distinctive characteristics of EMNEs internationalization content (i.e. ultimate intent, external context, internal profile, strategic choice and market effect) and process (i.e. simultaneity, directionality and rhythm). Moreover, as internationalization speed is arguably the most important time-base dimension, and faster speed translates into higher rates of geographic diversification (Gao and Pan, 2010; Persinger et al., 2007), EMNEs' strategies may provide insight on the nexus between spatial and temporal dimensions of foreign growth (Bartlett and Ghoshal, 2000; Mathews, 2006).

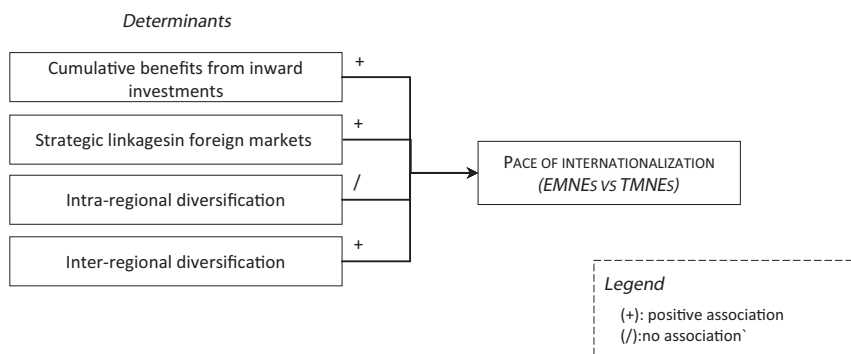
Nevertheless, extant contributions neglect to specifically address the most salient antecedents of the EMNE's accelerated internationalization catching-up process. Relatedly, Prashantham and Young (2011) also claim that a solid empirical base for the measurement of spatial and temporal dimensions of EMNEs' abnormal overseas expansion is needed.

Therefore, this paper aims to investigate the dimensions affecting the pace at which EMNEs enlarge their geographic scope, emphasizing the differences with theories and research focused on TMNEs. Paving on the Linkage–Leverage–Learning (LLL) Model (Li, 2007; Mathews, 2006; cf. Narula, 2006) and the springboard perspective (Luo and Tung, 2007; Rui and Yip, 2008) and emphasizing EMNEs' distinctive relational capabilities as determinants of EMNEs internationalization patterns. With respect to TMNEs, EMNEs relational capabilities originate from the early stages of their domestic growth thanks to the cumulated benefits from inward investments, mushroom by creating linkages with partners in foreign market and rapidly allow to enlarge the geographic scope of the firm, regardless of psychic distance. In this vein, the paper models EMNEs distinctive relational capabilities in three salient dimensions, i.e. cumulated benefits from inward investments, strategic linkages in foreign markets and disregard for psychic distance in geographic diversification, and demonstrates their impact on the speed at which EMNEs enlarge their geographic scope (Fig. 1).

By addressing the container port industry, the contribution questions the applicability of extant internationalization theories to EMNEs, extending and rethinking some of the theoretical constructs related to spatial and temporal dimensions. Due to its intrinsic characteristics, the selected sector represents an ideal site for empirically challenging the internationalization patterns of EMNEs within the services industry. The recent liberalization and privatization processes experienced by this sector worldwide (Cullinane and Song, 2002; Peters, 2001), combined with its “location-boundedness” (Boddewyn et al., 1986; Li and Guisinger, 1992), trigger latecomer EMNEs to “leapfrog” traditional temporal phases of internationalization and develop different patterns of spatial outreach (Li, 2003; Olivier et al., 2007).

This contribution makes a step forward in the EMNEs' theorization and suggests further research avenues for International Business (IB) studies on internationalization pace.

The paper also provides insights for both managers and practitioners, suggesting some viable strategic options for firms coming from emerging countries, which aim to accelerate their internationalization speed.



Source: Authors' own elaboration.

Fig. 1. Conceptual framework: the determinants of EMNEs' internationalization pace.

The remainder of the paper is structured as follows. **Section 2** illustrates theoretical background and develops hypotheses. **Section 3** provides a brief outline of the selected industry, the sampling procedures and the method. **Section 4** reports the empirical findings, while **Section 5** discusses implications for academics, practitioners and policy makers, before concluding.

## 2. Literature review and hypotheses development

Although traditional IB theories argue that MNEs follow a sequential and incremental foreign expansion pathway (Johanson and Vahlne, 1977), empirical evidences from the rapid internationalization of EMNEs suggest the existence of accelerated and unconventional patterns in overseas growth (Mathews, 2006; Warner et al., 2004). By jumping and leapfrogging the established chain, many latecomer EMNEs quickly enter faraway foreign markets, regardless of psychic distance concerns, successfully catching-up with the early-mover TMNEs from the developed countries (Li, 2003).

This theme assumes a topical relevance in regulated service industries, where firms suddenly have the opportunity to participate in government privatization programs in high-growth businesses that opened after liberalization (Yaprak and Karademir, 2010). Often fostered by a protected home market and a significant state support (Child and Rodrigues, 2005; Nolan, 2001), these firms pursue rapid international expansion by committing large amounts of financial resources, leveraging on political capabilities (Persinger et al., 2007; Sarkar et al., 1999) and exploiting open window opportunities (Luo and Tung, 2007). This is especially the case in the service sectors such as electricity, telecommunications, transport and logistics, port operations, tourism, retailing, and finance (Guillén, 2005; Guillén and García-Canal, 2009; UNCTAD, 2006; Yaprak and Karademir, 2010).

Service EMNEs, therefore, provide an ideal site for challenging two specific constructs of extant internationalization theories: i) time, i.e. the pace in pursuing international diversification, and ii) space, i.e. the geographic scope of a firm, modeled as intra- and inter-regional geographic diversification.

Some authors, who have recently studied the current dramatic growth of EMNEs, specifically address EMNEs uniqueness in the attempt to model their accelerated and unconventional internationalization patterns and the related determinants. Child and Rodrigues (2005) examine the patterns of and the motives for internationalization by Chinese firms and argue that they make overseas investments challenging competitive disadvantages, in opposition to TMNEs' rationales. Mathews (2006), addressing Dragon Multinationals strategic intents, suggests to adopt a different theoretical perspective to interpret their internationalization patterns and proposes the LLL Model to explain the key dimensions shaping EMNEs international expansion. Peng and Delios (2006) question the relations between space and time in the internationalization process of Asian MNEs and propose to advance an institutional-based view on the international diversification strategies of emerging Asian firms. Luo and Tung (2007) introduce a springboard perspective to describe the internationalization of EMNEs, and suggest that those enterprises heavily rely on their home base to overcome their latecomer disadvantage in the global landscape as well as exploit aggressive acquisitions to pursue accelerated growth patterns. Li (2007), grounding on the empirical evidence of the Chinese MNEs suggests to integrate the traditional OLI Model and new LLL Model into the content-process framework of MNEs evolution, combining both spatial and temporal constructs. In this vein, Li (2010) makes a step forward proposing a learning-based view for explaining the accelerated internationalization of latecomer MNEs as the new species of MNEs from emerging economies. Moreover, Yaprak and Karademir (2010) argue that business group affiliation is a worthwhile ingredient in the rapid international expansion of EMNEs, recognizing the role played by formal and informal ties. Finally, Guillén and García-Canal (2009) provide useful insight on the way in which EMNEs pursue accelerated trajectories for internationalization, by becoming key actors in FDI, cross-border acquisitions, alliances and joint ventures, through the exploitation of large amounts of financial resources.

The debate on the applicability of extant MNE theories to EMNEs suggests that those theories are incomplete in their coverage of spatial and temporal dimensions of internationalization (Li, 2007) and that a systematic and empirical attempt to refine existing theories is required to adequately capture the dynamics of EMNEs (Buckley et al., 2008). Although there is not yet a consensus about what a new EMNEs theory could look like (Gammeltoft et al., 2010), previous contributions shed light on the mutual interactions between internationalization pace (time) and geographic scope (space). In particular, most studies on EMNEs internationalization emphasize the role of distinctive relational capabilities as antecedents of their foreign growth (Child and Rodrigues, 2005; Kothari et al., 2013; Li, 2010; Yaprak and Karademir, 2010). With respect to TMNEs, EMNEs are proved to rely on links with foreign partners in the home country (i.e., inward steps of internationalization) since the pre-internationalization phase, in order to acquire technology, market knowledge and resources for accelerating their internationalization pace (Luo and Tung, 2007). In so doing, EMNEs shape the content of their internationalization, in terms of internal profile and strategic approach, shifting from a firm-level to a network-level logic (Li, 2007). As argued in the LLL Model, EMNEs engage external linkages with skilled partners and leverage on informal ties in a distinctive fashion with respect to TMNEs (Mathews, 2006). While all firms use strategic linkages to a certain extent, EMNEs are proved to have stronger inclination to build and exploit relational capabilities to offset their late-mover disadvantages and to compete against global rivals (Luo and Rui, 2009).

Also, grounding on distinctive relational capabilities, EMNEs overcome the liability of foreignness in new countries, and thus foster internationalization speed (Mathews, 2006). The availability of reliable partners and the need for asset-exploring overseas, lead EMNEs to differentiate their internationalization process with respect to TMNEs both in terms of ultimate intent and external context (De Beule et al., 2014; Li, 2007). In fact, EMNEs jump from a local to a global perspective and undertake their initial major FDI projects in faraway countries despite greater cultural distances (Child and Rodrigues, 2005).

Therefore, paving on the distinctive relational capabilities of EMNEs, this study proposes an analytical framework for investigating the determinants of EMNEs' foreign expansion, in opposition to the traditional antecedents of TMNEs' patterns. In particular, the cumulative benefits from inward investments, the strategic linkages in foreign markets and the lower constraints related to psychic

distance in entering new markets are proved to be distinctive relational capabilities which shape the speed and the scope of EMNE's internationalization pattern in a unique manner respect to TMNEs.

### 2.1. Cumulative benefits from inward investments

In the attempt to explain the rapid EMNEs' internationalization process, several authors argue the cumulative benefits originating from inward investments (Li, 2007). In particular, according to the springboard perspective, EMNEs, unlike TMNEs, accelerate their pace of internationalization leveraging on resources acquired through links established since the pre-internationalization phase with foreign partners in the home country (Luo and Tung, 2007).

Inward internationalization, indeed, allows EMNEs to upgrade marketing knowledge as well as technological and managerial skills, accumulate significant financial resources, and develop learning experiences (Li, 2007). By reducing EMNEs' liability of foreignness (Luo and Tung, 2007) and boosting absorptive capacity related to international knowledge accumulation process (Guthrie, 2005; Young et al., 1996), inward internationalization fosters EMNEs foreign growth more rapidly in comparison with TMNEs overseas growth.

Prior international ties, moreover, favor EMNEs' internationalization, by providing opportunities to expand abroad as a contractor to an existing MNE or being carried by a multinational customer into new foreign countries (Andersen et al., 1997; Mathews, 2006). EMNEs, pursuing customers in many foreign markets simultaneously, quickly reach a wide geographic breath and accelerate their pace of expansion (Luo and Tung, 2007). Therefore, we expect that:

**H1.** Cumulative benefits from inward investments positively affect EMNE's internationalization pace, in contrast to TMNE.

### 2.2. Strategic linkages in foreign markets

Empirical evidence related to EMNEs' internationalization patterns suggests that strategic alliances, joint ventures and cooperative agreements represent a viable option for these latecomers to enter new markets and catch up with early-mover MNEs in a rapid fashion (Ernst, 2000; Hobday, 1997; Li, 1994, 2007; Mathews, 2002).

As a result, several authors raise the need to incorporate the implications of strategic alliances, links and ties into extant internationalization theories (Li, 2007). In this perspective, the LLL Model proposed by Mathews (2006), claims that EMNEs engage in FDIs to achieve new competitive advantages via external linkages and argue that those firms are able to quickly expand abroad, leveraging on partnerships and joint ventures more diffusely than TMNEs. Buckley et al. (2008) and Yaprak and Karademir (2010) find analogous empirical evidence related to EMNEs abnormal expansion strategies.

Partnerships, alliances and diverse linkages with other MNEs are used by EMNEs to simultaneously overcome the liability of foreignness in the country of the partner/target firm and to acquire new resources and capabilities (Guillén and García-Canal, 2009).

In addition, Child and Rodrigues (2005) note that EMNEs tend to heavily rely on ethnic networks in host countries entered through FDI projects, in opposition to TMNEs. These cultural and ethnic ties provide relevant information on business opportunities and the management of local labor, as well as assistance in dealing with local officials (Brown, 1995; Yeung and Olds, 2000).

Formal and informal linkages, in fact, allow sharing information about business opportunities, market barriers, and other potential partners. Persinger et al. (2007) make a step forward, suggesting that these networks serve a much more important purpose for emerging economies where credit-rating agencies or chambers of commerce may not be available for the screening of potential partners. As all these types of linkages foster and boost EMNEs internationalization speed (Prashantham and Young, 2011), we expect that:

**H2.** Strategic inter-firm linkages in foreign markets positively affect EMNE's internationalization pace, in contrast to TMNE.

### 2.3. Geographic diversification and psychic distance

As widely recognized, traditional internationalization theories suggest that TMNEs enter new markets involving increasingly greater psychic distance, i.e. differences in language, culture, economic and political systems (Johanson and Vahlne, 1977). In fact, TMNEs start internationalization in those markets where they can easily spot opportunities, and where they perceive lower liabilities of foreignness (Davidson, 1980).

In this sense, recent studies on TMNEs show empirical evidence of more concentrated regional strategies rather than globally outstretched operations (Rugman, 2005; Rugman and Verbeke, 2008). To measure and weigh these phenomena, Qian et al. (2010) propose a two-tier geographic diversification approach, applying the notion of intra- and inter-regional diversification. In particular, the relevance of intra-regional diversification in TMNEs' foreign expansion, which captures geographic diversification across similar countries within a region (Qian et al., 2010), unveils how psychic distance does affect TMNEs' geographic scope. Moreover, scholars have gone to great lengths to emphasize that service TMNEs "encounter a liability of inter-regional foreignness" (Rugman and Verbeke, 2008). Therefore, these firms privilege intra-regional rather than inter-regional geographic diversification, consistent with the theory of regional strategy (Rugman and Verbeke, 2007).

Nevertheless, several authors argue that, while exploiting the ex-ante stock of knowledge is salient to TMNE, exploring the ex-post flow of knowledge is central to EMNEs given their goals of accelerated internationalization (Li, 2010). The conventional models devoted to TMNEs, neglect to consider that EMNEs see cross-border diversity between the host and home countries not only as negative

uncertainties and liabilities, but also as positive opportunities and benefits (Barkema and Drogendijk, 2007; Jones and Coviello, 2005; Tsang and Yip, 2007).

Largely due to the need for asset-exploring, EMNEs launch their initial major FDI projects in faraway countries despite greater cultural distances (Child and Rodrigues, 2005; Denk et al., 2012; Li, 2007) and enter developed and developing countries simultaneously from early-stages of internationalization, in order to accelerate their foreign growth (Guillén and García-Canal, 2009). Therefore, EMNEs ignore traditional patterns of early FDIs in “culturally close” countries (Li, 2010) and pursue inter-regional diversification strategy, thus reaching a wide geographic scope in a more compressed timeframe with respect to TMNEs (Mathews, 2006).

As liability of foreignness are partially mitigated by the process of inward internationalization, EMNEs shy away from psychic distance and leapfrog foreign expansion trajectories (Luo and Tung, 2007). As a result, we expect that:

**H.3.** Intra-regional geographic diversification does not affect EMNE's internationalization pace, in contrast to TMNE.

**H.4.** Inter-regional geographic diversification positively affects EMNE's internationalization pace, in contrast to TMNE.

### 3. Data and method

#### 3.1. Empirical context

To challenge temporal and spatial constructs proposed by mainstream IB theories, and investigate the determinants of EMNEs' internationalization pace, the container port sector represents an ideal site within the services industry. In attempting to update and extend traditional theories to EMNEs, Li (2007) and Gao and Pan (2010) suggest to focus on those sectors characterized by accelerated internationalization and globalization processes, as well as, on those where a paradigm shift from “hierarchy capitalism” to “alliance capitalism” is emphasized. In this regard, the rate at which spatio-temporal dynamics of change have taken place in the container port industry triggers a revisited theoretical toolbox (Olivier and Slack, 2006). Moreover, differently from many other businesses, that currently enjoy advanced stages of internationalization, worldwide liberalization and privatization of the port sector is an ongoing phenomenon that only accelerated since the mid-1990s (Peters, 2001). Since 2000 BRIC economies experienced a tremendous growth in inward FDIs from both developed and developing countries, registering 108 foreign investments in container port facilities (2000–2011 period). In this regard, China and India proved to be among the most attractive locations worldwide. The progressive liberalization of this industry, in fact, stimulated over 80 foreign entries in China and 15 in India from the early 2000s, with an unprecedented acceleration of investments since 2005. Over the last decade, a number of developing countries underwent a similar process of deregulation, including Mexico (14 projects involving foreign firms), Indonesia (10), Pakistan (10), Argentina (9), Thailand (7), Philippines (5), and Turkey (3).

Such international opening stimulated several container port MNEs to expand their operations abroad and drove to the emergence of leading players capable of managing wide portfolios of subsidiaries across various nations (Cullinane and Song, 2002; Olivier, 2005).

In particular, container port MNEs from emerging countries acted as a powerful force spearheading the internationalization drive, and rapidly “leapfrogged” traditional temporal phases of internationalization, sketching patterns of spatial outreach different from those of TMNEs (Olivier et al., 2007). Since 2000, for example, ICTSI Group (Philippines) expanded overseas in 12 port facilities, Yildirim Group (Turkey) in over 20 projects and PSA International (Singapore) in 90 port terminals. These EMNEs, due to their late-comer status are somehow driven to pursue more risky and accelerated overseas paths, leveraging on the cumulated benefits generated by inward operations. The formerly regulated nature of this sector, moreover, forces container port EMNEs to commit large amounts of resources and establish new subsidiaries as soon as new opportunities arose from privatization, as argued by Guillén and García-Canal (2009) regarding EMNEs.

In addition, as other services, port operations require simultaneous production and consumption, consistent with the concept of “location-boundedness” (Boddewyn et al., 1986; Li and Guisinger, 1992). This feature largely affects container port MNE's entry mode choice, imposing FDIs in order to reach new markets.

Furthermore, the exacerbation of competition materializing in the industry, drives container port MNEs to increasingly resort to equity joint-venture (EJV) agreements, thus building up large networks of inter-firm communities around the globe (Parola et al., 2014).

#### 3.2. Sampling frame

The hypotheses illustrated in the previous section are tested on the basis of longitudinal data regarding foreign expansion pathways of container port MNEs. The overseas growth of these firms is considerable. In fact, the World Bank (2013) for the period 2002–2011 reports over 220 new port projects involving private participations referring to developing countries alone, for a total FDI amount of approximately 38 billion USD. This study uses the universe of container-port MNEs, defined as firms holding at least one foreign subsidiary (i.e. operating a facility overseas), within the selected time frame. Data is collected from Drewry Shipping Consultants, the leading maritime advisor in this business, and integrated by information sourced from the consolidated firm's annual reports and financial statements, company websites and press releases. This approach achieves a high degree of completeness and consistency for all the observations. Group structure is taken into account in dataset processing. As a result, after consolidation, 56 holding firms are sampled.

Consistent with Größler et al. (2013) the overall MNEs sample is split into two sub-samples, separating EMNEs and TMNEs. For our purposes, EMNEs have been defined as international companies coming from emerging markets, engaged in outward FDI (Luo and Tung, 2007). Therefore, the EMNEs sub-sample is made up of 23 MNEs headquartered in 9 emerging countries (e.g. China, Chile, Turkey) as defined by the World Bank (Persinger et al., 2007), while the TMNE sub-sample includes 33 MNEs originating from 13 developed economies (e.g. USA, Japan, United Kingdom).

Data are collected over a 10-year period 2002–2011, thereby providing reliable and updated information. More than 5100 records make up the dataset. Each record includes relevant information data on each subsidiary (e.g. location of the facility, year of entry, investor partners, shareholding, total output) for each year the MNE belongs to the sample. Overall, 544 subsidiaries located in 90 different nations are monitored across the sampling time frame, including 232 wholly owned subsidiaries and 312 equity joint-ventures.

### 3.3. Variables

The paper addresses spatial and temporal dimensions of EMNEs' international growth and explores their internationalization pace in relation to four potential determinants, i.e. cumulative benefits from inward investments, strategic linkages in foreign markets, intra-regional and inter-regional geographic diversification. First, we tested the uniqueness of EMNEs with respect to TMNEs belonging to the sample by performing a multivariate analysis of variance (MANOVA), corroborating the appropriateness of the sample split into two subgroups.

In order to test the hypotheses, OLS regression models are performed, introducing a wide set of dependent, independent and control variables, defined and operationalized according to the scope of the analysis (Table 1).

### 3.4. Dependent variable

In this contribution, we address the determinants of EMNEs' internationalization pace, which notably indicates the speed with which a firm pursues the internationalization process (Casillas and Acedo, 2013).

**Table 1**

Definition and operationalization of dependent, independent and control variables.

Code	Variable	Definition and operationalization	Hp	Predicted sign
<i>Dependent variable</i>				
PACE	Internationalization pace	Measured as the average number of new overseas subsidiaries established or acquired by each MNE per year in the selected timeframe (2002–2011).		
<i>Independent variables</i>				
INWA	Cumulative benefits from inward investments	Measured as the average number of ties (i.e., equity agreements) with foreign partners in domestic subsidiaries per year since the preinternationalization phase.	H.1	+
LINK	Linkage	Measured as the average number of ties (i.e., equity agreements) with strategic partners in foreign subsidiaries per year in the sample timeframe (2002–2011).	H.2	+
INTRA	Intra-regional geographic diversification	Reflects the intra-regional geographic diversification of the MNE (Qian et al., 2010). Measured as the mean of yearly $\delta_{intra}$ in the sample timeframe (2002–2011). See Appendix A.	H.3	/
INTER	Inter-regional geographic diversification	Reflects the inter-regional geographic diversification of the MNE (Qian et al., 2010). Measured as the mean of yearly $\delta_{inter}$ in the sample time frame (2002–2011). See Appendix A.	H.4	+
<i>Control variables</i>				
SIZE	Firm size	Measured as MNE's average physical output (i.e. container throughput) per year in the selected timeframe (2002–2011). In particular, we use the natural logarithmic transformation of this variable in order to moderate collinearity concerns.		
RHYT	Rhythm in the internationalization process	Measured as the standard deviation of MNE's speed of internationalization in each sample year.		
PREI	Pre-internationalization experience	Measured as the number of years between the beginning of domestic operations and the first foreign venture of the MNE.		
EXPE	International experience	Operationalized as the number of years that the MNE has been operating in foreign markets.		
WAVE	Internationalization wave	Dummy variable which takes value 1 if the MNE started its internationalization process after the beginning of the new millennium, and 0 otherwise.		
FINA	Financial resources	Reflects the firm's listing status and its ease of accessing to financial resources. It takes value 1 if the firm is listed on a Stock Exchange, 0 otherwise (source: authors' own elaboration from S&P Capital I-Q).		
BGA	Business group affiliation	Dummy variable which takes value 1 if the MNE belongs to a diversified business group, and 0 otherwise (Yaprak and Karademir, 2010).		
INST	Home country institutional settings	Measured through World Bank Governance Indicators which include: control of corruption, government effectiveness, political stability, regulatory quality, rule of law, voice and accountability. The higher the indicator the higher the quality of the home country institutional settings.		
COMP	Competition in the home country	Count variable which measures the number of years between the first openness of the firm's home market to foreign competitors and MNE's first investment overseas.		

Source: Authors' own elaboration from Drewry Shipping Consultants (2002–2011), World Bank (2002–2011), corporate disclosure documents and websites.

To measure the notion of pace and simplify empirical testing, several academics propose diverse operationalization, which take into account dimensions such as the number of countries or continents entered, the proportion of international revenues achieved and/or sourcing of inputs (Prashantham and Young, 2011).

For the aim of this study, consistent with Vermeulen and Barkema (2002), we measure the pace of internationalization in each year as the number of foreign ventures a MNE undertakes in that year. We therefore calculate MNE's internationalization speed (PACE) as the average number of new overseas subsidiaries established or acquired per year in the selected timeframe.

### 3.5. Independent variables

Four independent variables are introduced in the OLS regression models. First, the variable “cumulated benefits from inward investments” (INWA) is inserted in the model by estimating the resources and opportunities for each MNE, which originate from the establishment of equity agreements with foreign partners in domestic projects since the pre-internationalization phase. In particular, INWA is operationalized as the average number of ties with foreign partners in domestic subsidiaries per year.

Second, we introduce the variable “strategic linkages in foreign markets” (LINK) aiming to appreciate the MNE's propensity to develop strategic alliances, joint ventures and cooperative agreements with other partners in entering foreign markets. Specifically, LINK is measured as the average number of links with strategic partners in foreign subsidiaries per year during the sampled timeframe.

Finally, in order to address international diversification (e.g. Heenan and Perlmutter, 1979; Hitt et al., 2006; Sullivan, 1994), consistent with previous academic literature (Hitt et al., 1997), we introduce an ad hoc entropy measure, conceived by Jacquemin and Berry (1979) and further developed by Vachani (1991), which captures related (intra-regional) and unrelated (inter-regional) geographic diversification. Considering the strong place-specific nature of services (and, in particular, of the port sector), first, for the  $h$ -th firm, we calculate the total geographic diversification ( $\delta_{\text{total}, h}$ ) for each year, taking into account the geographical distribution of the physical output of the subsidiaries located in each country (see Appendix A). Then we split the index into intra-regional ( $\delta_{\text{intra}, h}$ ), capturing geographic diversification across countries within a region and inter-regional ( $\delta_{\text{inter}, h}$ ), measuring diversification across various regions (Qian et al., 2010). These indexes are calculated for each year within the timeframe and then, for each operator, two variables are identified: “intra-regional geographic diversification” (INTRA) and “inter-regional geographic diversification” (INTER), measured as the mean of the corresponding yearly values.

Regions may be classified in different ways. Previous works mostly adopted a four-region (Hitt et al., 1997) or a triadic approach (Ohmae, 1985). This paper uses as its main information source Drewry's classification, including 12 regions. Such a classification, being based on the homogeneity of intra-regional competitive dynamics, is data consistent.

### 3.6. Control variables

The proposed OLS models also include nine control variables derived from mainstream IB literature. First, we take into account firm's size by introducing SIZE variable as control variable. It is measured as MNE's average physical output per year in the selected timeframe.

As recognized by several authors, the achievement of accelerated internationalization pattern imposes abnormal events (such as stage overlap, jump and compression), shaping an irregular and non-sequential pattern (Li, 2003; Li and Chang, 2000; Mathews, 2006; Warner et al., 2004). Therefore, we introduce the rhythm of internationalization process as control variable (RHYT), in order to assess how the regularity of the process influences the internationalization pace. Consistent with Vermeulen and Barkema (2002), who define rhythm as the regularity at which new foreign subsidiaries are established over time, we operationalize RHYT as the standard deviation of MNE's speed of internationalization in each sampled year.

Moreover, we introduce two time-based control variables “pre-internationalization experience” (PREI) and “international experience” (EXPE), which have been recognized as determinants of internationalization speed by previous contributions (Li, 2010; Pitelis and Verbeke, 2007). In particular, PREI is operationalized for each MNE as the number of years between the beginning of domestic operations and its first foreign venture (Prashantham and Young, 2011). EXPE is defined as the number of years that the firm has been operating in foreign markets (Hennart and Reddy, 1997; Luo and Peng, 1999). We also test for the existence of a curvilinear relationship between international experience and pace.

Moreover, the empirical evidence related to diverse waves of FDIs both from emerging (Child and Rodrigues, 2005; Mathews, 2006) and developed countries – see the rise of “born-global” and “born-again born global” MNEs (Bell et al., 2001) – suggest that extant theories have to restate their validity for any MNE in the context of globalization (Coviello, 2006). Therefore, in order to catch this phenomenon, the control variable “wave of internationalization” (WAVE) is introduced, assessing the impact of a later-stage internationalization on MNEs speed.

Extant theories argue that EMNEs pursue aggressive acquisitions of critical assets from mature MNEs and greenfield investments in emerging/developed countries to accelerate their international expansion (Luo and Tung, 2007; Mathews, 2006). Such a strategic approach is possible due to the EMNEs' privileged access to financial resources, as well as government subsidies and capital market imperfections (Buckley et al., 2008; Guillén and García-Canal, 2009). In this vein, several EMNEs raise funds for boosting their rapid international growth, by going for an Initial Public Offering (IPO) and become listed on the Stock Exchange (Child and Rodrigues, 2005). As a result, we also include the variable FINA to assess the impact of the firm's “financial strength” on internationalization speed.

As “business group affiliation” has been proved to accelerate EMNEs' international expansion (Yaprak and Karademir, 2010), we also insert an ad hoc control variable (BGA).

Finally, aiming to test how home country factors shape internationalization speed two control variables are introduced, i.e. “home country institutional settings” (INST) and “competition in the home country” (COMP). In fact, new theories argue that EMNEs use

**Table 2**  
Descriptive statistics and correlation matrix (Pearson's product moment correlation coefficients).

Variable	Min	Max	Mean	S.D.	INWA	LINK	INTRA	INTER	SIZE	RHYT	PREI	EXPE	WAVE	FINA	BGA	INST	COMP	Collinearity diagnostics		
																		Tolerance	VIF	
PACE	-0.22	6.89	0.96	1.30																
INWA	0.00	21.40	3.05	4.00	1														0.59	1.68
LINK	0.00	91.10	10.66	16.95	-0.036	1													0.30	3.32
INTRA	0.00	1.05	0.25	0.27	-0.152	0.391***	1												0.68	1.48
INTER	0.00	1.93	0.56	0.50	-0.040	0.563***	0.293**	1											0.38	2.65
SIZE	5.50	10.58	7.75	1.17	0.332**	0.687***	0.331**	0.458***	1										0.29	3.40
RHYT	0.00	12.20	1.40	2.16	-0.159	-0.021	-0.185	-0.059	-0.148	1									0.76	1.32
PREI	0.00	33.00	6.50	9.52	0.199	0.159	-0.096	-0.035	0.289*	-0.161	1								0.58	1.72
EXPE	1.00	40.00	13.02	11.45	-0.080	0.316**	0.251*	0.516***	0.379***	-0.174	-0.051	1							0.30	3.38
WAVE	0.00	1.00	0.50	0.50	-0.163	-0.367***	-0.141	-0.449***	-0.499***	0.053	-0.201	-0.722***	1						0.34	2.93
FINA	0.00	1.00	0.78	0.42	-0.066	-0.150	0.055	-0.398***	-0.132	0.175	-0.297*	-0.363***	0.316**	1					0.41	2.43
BGA	0.00	1.00	0.45	0.50	0.000	0.267**	0.116	0.026	0.102	-0.256*	0.032	0.331**	-0.251*	-0.250*	1				0.63	1.60
INST	-0.93	2.45	1.24	0.89	-0.282*	0.297**	0.332**	0.144	0.146	0.120	-0.006	0.018	-0.046	0.378***	-0.158	1			0.57	1.74
COMP	0.00	40.00	18.00	14.66	0.100	-0.039	0.009	-0.138	0.011	0.157	0.069	-0.426***	0.317**	0.408***	-0.227*	0.082	1		0.64	1.56

Note: \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ . \*, \*\* and \*\*\* denote 10%, 5% and 1% levels of significance, respectively.

Source: Authors' own elaboration.



international growth as a mean to alleviate domestic institutional (Buckley et al., 2008; Guillén and García-Canal, 2009; Luo and Tung, 2007) and competitive constraints (Chan et al., 2006; Chang and Park, 2005; Luo and Tung, 2007).

#### 4. Empirical findings

##### 4.1. Descriptive statistics

Before performing the OLS regression models we investigate the distributions of dependent, independent and control variables. Table 2, discloses the main descriptive statistics and the correlation matrix, unveiling some variance; a few variables appear to be correlated with others. Indeed, further analysis discloses that multicollinearity does not constitute a serious threat to regression results, as the tolerance ( $T > 0.2$ ) and the variance inflation factors ( $VIF < 5$ ) are largely within the accepted range (Belsley et al., 1980; Hair et al., 1995).

In particular, the dependent variable PACE ranges from  $-0.22$  (min) to  $6.89$  (max), with an average value of  $0.96$  and standard deviation of  $1.30$ . On average the sample MNEs established four inter-firm ties with foreign partners in domestic subsidiaries per year since the pre-internationalization phase. The average number of ties with strategic partners in foreign subsidiaries is equal to  $10.66$  per year in the sampled timeframe, corroborating the “alliance capitalism” nature of the sector. The intra-regional (INTRA) and inter-regional (INTER) diversification indexes show average value of  $0.25$  and  $0.56$ , respectively.

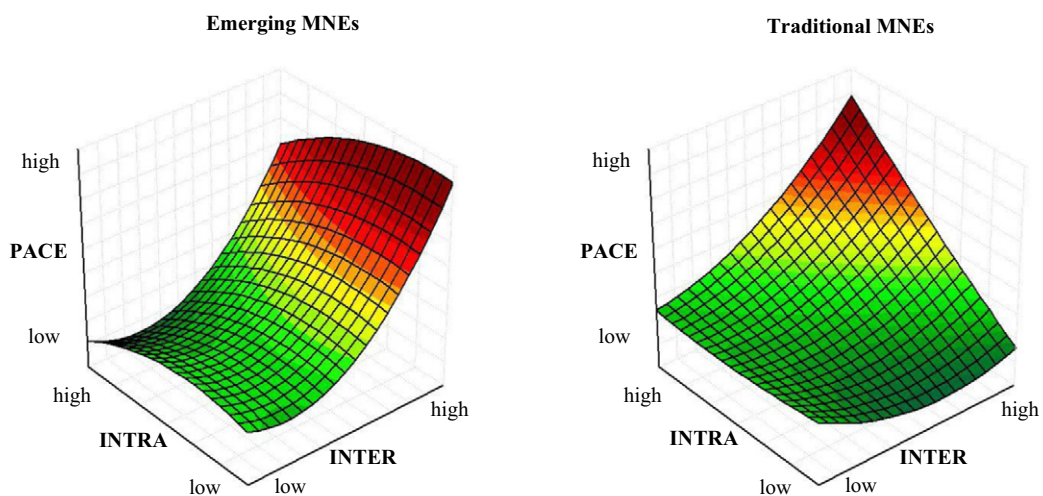
Aiming to test within the overall sample the existence of the EMNEs unique characteristics recognized by emerging theories in opposition to TMNEs, and therefore corroborate the appropriateness of the sample split into two subgroups (EMNEs vs. TMNEs), a multivariate analysis of variance (MANOVA) is performed. The results confirm a significant difference between sub-samples, both considering dependent and independent variables only (approx.  $F = 2.575$ ,  $p$ -value  $< 0.05$ ), and also including control variables (approx.  $F = 2.541$ ;  $p$ -value  $< 0.01$ ). In particular, EMNEs unveil a higher internationalization speed with respect to TMNEs ( $1.08$  vs.  $0.87$  on average), a much higher propensity to establish strategic linkages in foreign subsidiaries ( $13.63$  vs.  $8.60$ ), and a lower intra-regional diversification ( $0.23$  vs.  $0.27$ ).

As expected, pace emerges as distinctive feature of EMNEs' internationalization process. Therefore, before test developed hypotheses through OLS regression models, the relations between spatial and temporal dimension are preliminarily investigated. In particular, Fig. 2 provides the 3D plots related to pace, intra- and inter-regional geographic diversification both in EMNEs and TMNEs subgroups. Indeed, geographic scope, modeled as intra- and inter-regional diversification, impacts on EMNEs' internationalization pace in a very differentiating fashion with respect to TMNEs. Fig. 2 suggests that, within EMNEs subgroup, a higher level of inter-regional diversification is associated to a high internationalization pace, regardless of the degree of intra-regional diversification. On the contrary, TMNEs require combining high levels of inter- and intra-regional diversification, in order to reach a significant level of foreign growth speed.

##### 4.2. OLS regression

Overall, three models are developed including four independent variables and nine control variables.

The results of the models are presented in Table 3, which also provides additional information about the OLS regression assumption checks.



Source: Authors' own elaboration.

Fig. 2. Spatial and temporal dimensions of internationalization in EMNEs and TMNEs: 3D plots.

**Table 3**

OLS regression models: all sample, EMNEs and TMNEs.

	Model 1	Model 2	Model 3
(Intercept)	0.334 (0.957)	0.365 (2.178)	1.696 (1.433)
<i>Independent variables</i>			
INWA <sup>(1)</sup>	0.102 (0.094)	0.424 * (0.223)	0.083 (0.122)
LINK <sup>(1)</sup>	-0.017 (0.132)	-0.141 (0.269)	0.418 (0.261)
INTRA <sup>(1)</sup>	0.313 *** (0.090)	0.258 (0.255)	0.297 *** (0.099)
INTER <sup>(1)</sup>	0.147 (0.123)	1.271 *** (0.402)	-0.066 (0.175)
<i>Control variables</i>			
SIZE <sup>(1)</sup>	-0.056 (0.115)	-0.062 (0.257)	-0.165 (0.166)
RHYT <sup>(1)</sup>	0.885 *** (0.084)	0.751 *** (0.147)	0.869 *** (0.105)
PREI	0.053 (0.102)	0.046 (0.264)	0.292 * (0.148)
EXPE <sup>(1)</sup>	-0.417 (0.413)	-2.062 * (1.057)	-1.389 ** (0.631)
EXPE2	0.120 (0.344)	0.919 * (0.603)	0.914 (0.542)
WAVE	0.157 (0.262)	0.320 (0.761)	0.342 (0.309)
FINA	0.222 (0.249)	3.534 *** (0.953)	0.021 (0.334)
BGA	0.247 (0.183)	-0.396 (0.365)	0.385 * (0.281)
INST	-0.125 (0.109)	-0.289 (0.185)	-0.489 (0.341)
COMP <sup>(1)</sup>	-0.214 ** (0.093)	-0.593 ** (0.258)	-0.336 ** (0.120)
Residual standard error	0.535	0.552	0.480
Multiple R-squared	0.786	0.889	0.870
Adjusted R-squared	0.713	0.696	0.769
F-statistic:	10.77	4.60	8.63
p-value	1.22E-09	1.81E-02	2.47E-05
<i>Normality tests: statistic (p-value)</i>			
Kolmogorov–Smirnov	0.09 (0.340)	0.12 (0.580)	0.08 (0.843)
Pearson chi-square	7.25 (0.510)	3.09 (0.687)	3.27 (0.774)
<i>Tests for serial correlation: statistic (p-value)</i>			
Breusch–Godfrey	2.24 (0.135)	2.92 (0.088)	0.48 (0.504)
Durbin–Watson	1.64 (0.109)	2.42 (0.916)	2.14 (0.576)
<i>Test for heteroskedasticity: statistic (p-value)</i>			
Breusch–Pagan	22.18 (0.075)	9.15 (0.821)	22.01 (0.078)
<i>Ramsey's RESET test for functional form: statistic (p-value)</i>			
	1.84 (0.172)	2.78 (0.140)	1.07 (0.365)

<sup>(1)</sup>Standardized variables.

Standard errors are in parentheses; \*p &lt; 0.10; \*\*p &lt; 0.05; \*\*\*p &lt; 0.01.

\*, \*\* and \*\*\* denote 10%, 5% and 1% levels of significance, respectively.

Source: Authors' own elaboration.

For all Models, the assumptions of classical linear regression method are verified in order to check the applicability of the OLS regression. In particular, we verify the normality of the errors distribution (Kolmogorov–Smirnov and Pearson Chi-square normality tests), the absence of serial correlation of errors (Breusch–Godfrey and Durbin–Watson tests) and the homoscedasticity of the error term (Breusch–Pagan test). Moreover, in order to check the correctness of functional form specified in the models (see Eq. (1)), a Ramsey's RESET test is performed confirming its correct specification.

$$\begin{aligned}
 PACE = & \beta_0 + \beta_1 INWA + \beta_2 LINK + \beta_3 INTRA + \beta_4 INTER + \beta_5 SIZE + \beta_6 RHYT + \beta_7 PREI + \beta_8 EXPE + \beta_9 EXPE^2 \\
 & + \beta_{10} WAVE + \beta_{11} FINA + \beta_{12} BGA + \beta_{13} INST + \beta_{14} COMP + \varepsilon
 \end{aligned}
 \tag{1}$$

All the tests confirm the assumptions of classical linear regression method for the three Models, although a slight concern emerges about heteroscedasticity for Model 1 and Model 3.

Model 1, which refers to the overall sample, appears statistically significant (F-statistics = 10.77; p-value = 1.22E-09) while only the coefficient related to INTRA is statistically significant and positively signed, thus showing the opportunity to split the overall sample into two sub-samples including EMNEs and TMNEs, respectively. For the purpose of this study, Model 2 addresses the determinants of EMNEs' internationalization pace, in opposition to TMNEs' behavior (Model 3).

Both Model 2 (F-statistic = 4.60) and Model 3 (F-statistic = 8.63) are found to be highly significant (p-value equal to 1.81E-02 and 2.47E-05, respectively). Concerning Model 2, the coefficients related to the variables INWA (p-value < 0.1) and INTER (p-value < 0.01) are statistically significant and correctly signed. Therefore, H.1 and H.4 are accepted. Moreover, the coefficient of variable INTRA is not statistically significant; therefore H.3, supposing that EMNE's intra-regional geographic diversification does not affect EMNE's internationalization pace, is supported. Finally, as the coefficient related to variable LINK is correctly signed, but statistically not significant (p-value > 0.1), H.2 is not supported. In addition, the comparison with Model 3, also allows to better appreciate the differences between EMNEs and TMNEs. In fact, in Model 3, all the coefficients related to independent variable are not statistically significant; except the variable INTRA, which is positively signed and statistically significant (p-value < 0.01). In order to test the difference between the values of the coefficients of INTRA in Models 2 and 3, an additional regression analysis is performed on the entire sample (MNEs), considering both the emerging/traditional nature of firms (developing an ad hoc dummy variable) and its interaction with the variable INTRA.

The outcome of this robustness check (p-value < 0.01) confirms the argument that EMNEs do not greatly rely on intra-regional diversification to expand their international activities, in opposition to TMNEs, which show empirical evidence of more concentrated regional strategies. Instead, EMNEs launch their initial major FDI projects in faraway countries despite greater cultural distances (Li, 2007) from early-stages of internationalization, in order to accelerate their foreign growth (Guillén and García-Canal, 2009).

Overall, the empirical outputs corroborate the role of EMNEs' unique relational capabilities as determinants of internationalization pace, and emphasize the interactions between spatial and temporal dimensions of their overseas growth. In particular, EMNEs' foreign growth speed is positively affected by cumulative benefits from inward investments and inter-regional geographic diversification, in contrast with TMNEs' internationalization patterns. Moreover, while intra-regional geographic diversification does not affect EMNEs' internationalization speed, it appears as a key determinant of TMNEs' pace. Finally, despite the arguments raised by literature, strategic linkages do not seem to greatly affect the pace at which MNEs internationalize.

The Chow's test is performed to further confirm the appropriateness of the split of the sample into two sub-sample aiming to investigate the determinants of EMNEs and TMNEs' internationalization pace. The test allows checking the existence of differences between two or more regressions (Chow, 1960). Indeed Model 2 (EMNEs) and Model 3 (TMNEs) are proved to be statistically different (F-statistic = 2.07; p-value < 0.05).

Regarding control variables, the rhythm of internationalization (RHYT) is positively associated with the internationalization pace in all the models, supporting the evidence that fast growth imposes higher irregularity in the foreign pathway.

The length of the pre-internationalization (PREI) phase does affect TMNEs' speed, consistent with IB extant theories, while it is not a good predictor for EMNEs. Concerning the variable EXPE, a quadratic relationship between international experience and pace emerge for EMNEs, according to a U-shaped curve. Conversely for TMNEs a linear negative association exists, as depicted in Model 3. The unexpected outcomes related to EXPE suggest that accelerated and ongoing globalization processes taking place in the sample port industry, force international players to suddenly exploit the time-window opportunities arising worldwide, and to start international operations with high commitment since their early beginning (Peters, 2001). Financial strength (FINA) appears to be a valuable antecedent of EMNEs' accelerated growth, while business group affiliation (BGA) positively affects only TMNEs internationalization speed. The competition in the home country (COMP) stimulates the rapid overseas expansion both of EMNEs and TMNEs, since the related coefficient is statistically significant and negatively signed in Models 2 and 3.

Finally, some robustness checks are carried out in order to validate the empirical results and disclose their consistency. For parsimony, outcomes are not tabulated whereas they are summarized below. Basically, we perform additional regression analysis (Models 4, 5 and 6, investigating MNEs, EMNEs and TMNEs, respectively) for testing the influential effect of time on the main findings. For this purpose, a number of time/year dummies (one for each 2-year period) are introduced in the regression. Each dummy relates to the starting year of MNE's internationalization process. All the models are highly significant (Model 4: F-statistic = 8.179, p-value = 4.38E-08; Model 5: F-statistic = 9.252, p-value 1.10E-02; Model 6: F-statistics = 6.302; p-value 4.17E-04) and corroborate the results of Models 1 to 3. In addition, the outcomes demonstrate that the results are not sensitive to time, except for the EMNEs sub-sample (Model 5). In this case, in fact, the coefficient of the variable associated to the period 2008–2009 is found to be significant and positively signed. Therefore, it is argued that EMNEs starting their internationalization process in this timeframe were able to acquire foreign subsidiaries at a cheaper market price, exploiting the fall of asset value caused by the crisis. Moreover, the coefficient of the variable INST is found to be significant in Model 5, suggesting that EMNEs are prone to accelerate their internationalization pace in order to overcome some weaknesses and threats of their country of origin, e.g. lower legal protection of private property, difficulty in start/doing business, etc. (Child and Rodrigues, 2005).

## 5. Discussion

### 5.1. Academic insights for further theoretical advances

The present contribution adds to the extant IB theories by challenging the determinants of EMNE's accelerated foreign patterns, emphasizing the interactions between spatial and temporal constructs.

In particular, the main findings corroborate some assumptions of emerging theories on EMNEs (e.g. LLL model and springboard perspective) through a wide empirical base, and provide a sound theoretical framework for explaining the rationales behind the accelerated and geographically outstretched international growth of this new species of MNEs. By addressing the main dimensions of the content and process of EMNEs' international expansion, the paper investigates EMNEs' distinctive relational capabilities as predictors of abnormal internationalization pace.

The empirical outcomes demonstrate the crucial role of cumulative benefits from inward internationalization in boosting EMNEs' overseas expansion, in opposition to TMNEs. In fact, by reducing EMNEs' liability of foreignness (Luo and Tung, 2007) and fostering its absorptive capacity during the international knowledge accumulation process (Guthrie, 2005; Young et al., 1996), inward internationalization facilitates the rapid overseas expansion of EMNEs.

Contrary to expectations, the establishment of strategic linkages in foreign markets does not appear to be a key dimension affecting the EMNEs internationalization pace, as it does not discriminate their overseas behavior from TMNEs. Such evidence may originate from the current environmental and competitive landscape. In the emerging "alliance capitalism" (Dunning, 1995; 2006), the tendency to adopt strategic alliances seems to be a pre-condition for firm survival, especially in capital intensive service industries, rather than an EMNE's unique dimension ensuring accelerated foreign patterns.

Finally, empirical outcomes suggest that the dichotomous EMNE/TMNE approach toward the study of the spatial and temporal dimension of internationalization may update and refresh extant theories on MNEs, confirming that the question of scope shows varying answers across different regions of the world (Wright et al., 2005). In other terms, geographic scope, modeled as intra- and inter-regional geographic diversification, impacts on EMNEs' internationalization pace in a very differentiating fashion in respect to TMNEs. The findings, in fact, while confirming the relevance of intra-regional diversification for TMNEs' speed of internationalization, demonstrate that EMNEs ignore traditional patterns of early FDIs in "culturally close" countries (Li, 2010) and pursue inter-regional diversification strategy. By this way they accelerate their foreign expansion trajectories and reach a wide geographic scope in a more compressed timeframe in respect to TMNEs (Mathews, 2006).

In conclusion, this contribution makes a step forward in the EMNEs' theorization and suggests further research avenues for IB studies under an overarching and integrated analytical lens.

The paper, in fact, addressing cumulated benefits from inward investments, strategic linkages in foreign markets and disregard for psychic distance in geographic diversification, emphasizes the predicting role of distinctive relational capabilities in modeling spatio-temporal dimensions of EMNEs' internationalization. The dichotomous EMNE/TMNE approach toward the study of this phenomenon, indeed, provides insightful opportunities for extending rather than replacing traditional theories of MNEs, by rethinking concepts, relations and causalities (Gammeltoft et al., 2010).

At the same time, this analytical angle represents just one of the potential perspectives for investigating the theme of internationalization pace and its determinants, as suggested by the latecomer perspective (Child and Rodrigues, 2005), the emergence of born-global MNEs (Oviatt and McDougall, 1994) and the international new venture (INV) perspective (Coviello, 2006; Persinger et al., 2007).

Basically, the contribution empirically corroborates the proposition of Gammeltoft et al. (2010), who argue that EMNEs internationalization patterns unveil a "fertile ground to look either at somewhat novel phenomena or existing ones in a somewhat novel manner". Moreover, this paper makes a step forward, suggesting the opportunity to investigate MNE's internationalization pace by integrating and combining diverse analytical angles already recognized in literature.

## 5.2. Implications for practitioners and policy makers

The contribution provides insights both for practitioners and policy makers. First, empirical results suggest some strategic options, which the managers of firms coming from emerging countries might implement in order to accelerate firm's internationalization speed since the early beginning of the overseas expansion.

In particular, as inward internationalization steps boost the EMNE's initial foreign growth, managers of local firms with overseas ambitions are invited to strongly cooperate and interact with foreign players in the home market. Indeed, indigenous firms may leverage on their knowledge of the home market (environmental, competitive and institutional conditions, etc.) in order to establish durable ties with foreign MNEs, to reduce liability of foreignness and to boost absorptive capacity related to international knowledge accumulation process (Guthrie, 2005). In this sense, strong commercial relationships and EJV local projects with foreign partners are encouraged in order to enhance the firm's relational capabilities.

In addition, although limited evidence is found on the role of strategic inter-firm linkages in shaping service EMNEs' internationalization pace, managers should be aware that partnerships, alliances and diverse ties in foreign markets mitigate the liability of foreignness, allow to overcome political and institutional barriers and quickly give access to new resources and capabilities (Guillén and García-Canal, 2009).

Finally, the outcomes suggest that EMNEs pursuing accelerated internationalization strategies may develop initial FDI projects in faraway countries despite greater cultural distances (Child and Rodrigues, 2005; Li, 2007). Therefore EMNE's managers should be aware not only of the negative uncertainties and liabilities related to cross-border diversity between the host and home countries, but also of the positive opportunities and benefits originating from inter-regional diversification strategies (Li, 2007; Mathews, 2006). As a result, the dynamic interactions between temporal and spatial dimensions of internationalization should be monitored and kept on the agenda by EMNE's managers.

Such insights, indeed, are also of practical relevance to public authorities and policy makers of emerging countries. Hence, governments are invited to encourage their business to go global, providing public funds and reverse investments sequentially, as well as other forms of governmental support.

First, fiscal policies should favor those local enterprises that enter equity partnerships or strategic agreements with foreign players that include contractual conditions related to technology and knowledge transfer.

Second, FDI projects of EMNEs should be supported by their respective governments through the establishment of public agencies responsible for favoring EMNEs' entry in new foreign markets. These entities, indeed, are called to provide internationalizing EMNEs with insights about business opportunities, market barriers, and potential partners in the newly entered foreign markets.

## 6. Limitations and conclusions

This paper explores the determinants of service EMNE's accelerated foreign patterns, in opposition to TMNE's sequential and incremental internationalization process. In this vein, the study models EMNEs distinctive relational capabilities in three salient dimensions, i.e. cumulated benefits from inward investments, strategic linkages in foreign markets and disregard for psychic distance in geographic diversification, and demonstrates their impact on the pace at which EMNEs enlarge their geographic scope.

By emphasizing the interactions between spatial and temporal constructs the theoretical arguments developed enable the evaluation and measurement of two specific dimensions of internationalization patterns: (i) time, that is the internationalization pace, and (ii) space, that is the geographic scope of a firm, modeled as inter- and intra-regional diversification.

The main findings corroborate some assumptions of emerging theories on EMNEs (e.g. LLL Model and springboard perspective) through a wide empirical base, and provide a sound theoretical framework for explaining the rationales behind the accelerated internationalization growth of this new species of MNEs. Moreover, the paper suggests investigating this phenomenon establishing a direct link between EMNEs' unique pace and scope of internationalization, thus feeding the debate over if the traditional IB theories may be applied to MNEs from emerging countries.

This study has some inherent limitations. First, this manuscript only focuses on to the universe of container-port firms. So, cross-sectorial comparisons are required, in order to verify the outputs' generalizability across similar service industries, such as telecommunications, electricity, finance, etc. Second, some independent and control variables should be operationalized in a different manner in order to iron out bias and test the robustness of outcomes. Third, the manuscript neglects to address some other potential determinants of EMNEs' internationalization pace, such as company's historical background and corporate governance. In addition, host country institutional and political factors should be better included in the conceptual framework (Kumar et al., 2013), strengthening the theoretical underpinning. Fourth, as emerging and developing economies represent a heterogeneous population of countries, further studies are invited to discriminate cautiously among the strategic behavior of the MNEs originating from diverse nations (Gammeltoft et al., 2010). Finally, in regard to the latecomer status of the firms pursuing unconventional international strategies, the selected sample may suffer from the "survivor bias", as it does not include internationalizing firms, which exited the market before 2002.

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## Appendix A

$T_{h,i,j}$ : Total throughput of the  $h$ -th firm in the  $j$ -th Nation of the  $i$ -th Region.

$\pi_{h,i} = \frac{\sum_j T_{h,i,j}}{\sum_i \sum_j T_{h,i,j}}$ : Regional throughput percentage of the  $h$ -th firm with respect to its total throughput.

$\pi_{h,j} = \frac{T_{h,i,j}}{\sum_i \sum_j T_{h,i,j}}$ : National throughput percentage of the  $h$ -th firm with respect to its total throughput.

$\pi_{h,i,j} = \frac{T_{h,i,j}}{\sum_j T_{h,i,j}}$ : National throughput percentage of the  $h$ -th firm with respect to its regional throughput.

$\Psi(x_i) = -\sum_i x_i \ln(x_i)$ : Shannon diversity index or entropy information. It is used to measure international diversification of throughput.

$\delta_{total,h} = \Psi(\pi_{h,j}) = -\sum_j \pi_{h,j} \ln(\pi_{h,j})$ : total throughput diversification between the nations.

$\delta_{inter,h} = \Psi(\pi_{h,i}) = -\sum_i \pi_{h,i} \ln(\pi_{h,i})$ : throughput diversification between the regions.

$\delta_{intra,h} = \sum_i \Psi(\pi_{h,i,j}) \cdot \pi_{h,i} = \sum_i (-\sum_j \pi_{h,i,j} \ln(\pi_{h,i,j})) \cdot \pi_{h,i}$ : throughput diversification within the regions between the nations.

$\Psi(\pi_{h,j}) = \Psi(\pi_{h,i}) + \sum_i \Psi(\pi_{h,i,j}) \cdot \pi_{h,i}$  OR  $\delta_{total,h} = \delta_{inter,h} + \delta_{intra,h}$ : throughput diversification index decomposition.

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