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Abstract

This paper deals with multiple-site acquisitions by International Terminal Operators (ITOs). A multiple-site acquisition is an external growth strategy focusing on the simultaneous take-over of an entire terminal portfolio as part of a unique transaction. The paper presents a theoretical framework about how spatial and temporal dimensions of foreign expansion are influenced by these multiple-site acquisitions. It also analyses the impact of multiple acquisitions on the sustainable growth of firms by focusing on the transaction package problem, the locational diversity problem and the irregular growth path problem. The proposed theoretical arguments are illustrated and supported by an analysis of a comprehensive global terminal-specific dataset related to the 1997-2010 period, and case studies on strategic market entry behaviour of two major ITOs.

Keywords: entry modes, multiple-site acquisition, International Terminal Operators, firm growth, time compression diseconomies.

1. Introduction

Over the last two decades, the container port industry experienced unprecedented transformations driven by port reform processes, which lead many terminal operators to outgrow their respective home ports. A growing number of international terminal operators (ITOs) progressively expanded their operations overseas, looking for portfolio diversification, network and scale effects in their cost base and additional financial margins (Olivier, 2005; Peters, 2001).

Empirical evidence underlines that several ITOs from emerging countries, "leapfrog" traditional temporal phases of internationalization and develop accelerated patterns of spatial outreach (Olivier et al., 2007; Parola et al., 2006). Moreover, as the growth of international containerized trade made the container port industry increasingly profitable, a number of financial operators was attracted to this business looking for global opportunities large enough to accommodate the vast quantities of capital at their disposal (Rodrigue et al., 2011).

Some ITOs successfully accelerated their internationalization by adopting aggressive market entry strategies, including both conventional acquisition (i.e. taking over a single facility or a firm as a whole, located at a single location or site), and multiple-site acquisition, namely the simultaneous take-over of an entire terminal portfolio in a single transaction (Parola et al., 2013b). The relevance of this "bundling" strategy for ITOs' internationalization strategies is witnessed by the number of multiple-site acquisitions carried out in the 1997-2010 period (which accounted for 35 major financial transactions), as well as by the overall amount of financial resources committed (over USD 38 billion) (Notteboom and Rodrigue, 2012; Olivier et al., 2007).

Through organic growth strategies based on terminal lease or concession agreements (Drewry Shipping Consultants, 2011; Notteboom et al., 2012), external entry modes allow ITOs to compress the time between the decision of entry and the beginning of terminal operations (Olivier et al., 2007), to circumvent some of the economic, institutional or normative barriers to market entry and to reduce the transaction risk (De Langen and Pallis, 2007).

Despite of the critical relevance of multiple acquisitions within the container port industry, their impact on spatial and temporal dimensions of ITOs' internationalization processes has not well been addressed in academic literature, leaving a significant gap to be filled (Satta et al., 2014). For this purpose, relying on general management theories, the paper proposes a conceptual framework for investigating how multiple-site acquisitions impact on spatial and temporal dimensions of ITOs' internationalization processes and why this strategic option may involve managerial concerns.

According to management literature, multiple-site acquisition is commonly expected to minimize the entry time in different locations and to give direct access to the existing market-related linkages of the targeted local firms (Belderbos, 2003), but it may also generate so-called "time-compression

diseconomies" which negatively affect a firm's absorptive capacity (Li, 2007; Mathews, 2006; Yeoh, 2011; Zhang et al., 2010). This is particularly the case when the portfolio being acquired is capital intensive and operationally complex. Multiple-site acquisitions heavily affect both spatial and temporal dimensions of a firm's foreign expansion patterns and alter its internationalization process (Roberts, 1999). These theoretical arguments are supported by empirical evidences gathered from the container port industry by applying a multiple-case studies methodology, which should unveil the main implications of multiple acquisitions for ITO's internationalization processes and suggest caution in the consideration of spatial and temporal setbacks undermining the sustainability of foreign expansion.

The paper is organised as follows. Section 2, building on existing literature, provides a conceptual framework for interpreting the impact of multiple-site acquisitions on temporal and spatial dimensions of ITOs' internationalization processes, as well as major managerial concerns originating from them. Section 3 focuses on the empirical context and the multiple-case study method. Section 4 reports the main outcomes of the multiple-case study. Section 5 discusses the validity of the conceptual framework, addresses drivers of multiple-site acquisition effects on ITOs' internationalization processes and provides implications for academics and practitioners.

2. Multiple-site acquisitions: space, time and managerial concerns

2.1 Multiple-site acquisitions and spatial-temporal dimensions of internationalization

Through multiple-site acquisitions, firms may enter several foreign markets simultaneously and reach a significant international presence and competitive position, catching-up on early movers (Li, 2003). Therefore, multiple acquisitions emerge as "abnormal events" in the overall corporate internationalization pathway. The resulting shockwave is expected to deeply affect both spatial and temporal dimensions of the process (Figure 1).

INSERT FIGURE 1 HERE

Concerning its spatial dimension, multiple acquisitions imply a variety of decisions related to the geographic scope of firm's operations, including the criteria related to new market selection, the target markets, the overall number of countries to be entered, etc. (Brouthers and Brouthers, 2003; Dow and Karunaratna, 2006). In the container port domain, the selection of (multiple) target markets represents a critical decision as the acquisition of new facilities overseas requires a large amount of financial resources and may expose ITOs to high sunk costs in case of divestiture (Pallis and De Langen, 2010;

Pallis et al., 2008). In addition, the selection of host countries is of strategic importance for shareholders and competitors (Airriess, 2001; Olivier, 2010).

As argued by managerial academic contributions, multiple-site acquisitions often determine a wide enlargement of firm's geographic scope (Δs_{ma}), defined as the range of locations where the company operates (Zahra and George, 2002) simultaneously entering new sites located in diverse host countries.

By combining the number of host countries and subsidiaries entered, a multiple-site acquisition may generate three different entry patterns. First a "multiple acquisition within a country" emerges when the firm penetrates a specific host country by investing in two or more facilities (*option a*). In this case, managerial concerns and organizational complexities come out in the effort to coordinate activities across various subsidiaries (Ma and Delios, 2007). In "multiple acquisition across countries" (*option b*) managers invest financial resources in more than one country simultaneously (Billinghton, 1999). Here the complexity originates from the potential heterogeneity of the different regulatory, legal, cultural and competitive backgrounds where the firm operates simultaneously (Globerman and Shapiro, 2002; Rosenzweig and Singh, 1991; Shimizu et al., 2004). Finally, "multiple acquisition within and across countries" (*option c*) takes place when a firm enters in several host country markets, by investing in two or more facilities in each market. This strategic decision results in the highest level of organizational and managerial complexity and poses high risks, both from a financial and market potential perspective (Theodosiou and Leonidou, 2003).

At the same time, the timeframe required for achieving this geographic expansion (Δt_{ma}) is drastically narrower in respect to other entry options. Managerial scholars suggest that multiple-site acquisitions impact on the temporal interactions among investment choices in foreign markets, including: i) the sequence of investments in a specific country, i.e. "the timing within a country" (Chang and Chen, 2012; Tan and Vertinsky, 1996); ii) the temporal dynamic linking market entries in different foreign nations, i.e. "the timing across countries" (Hadjikhami, 1997; Mitra and Golder, 2002).

Specifically, in the container port industry, multiple-site acquisitions ensure the compression of the timeframe ranging from the decision of entry to the actual beginning of operations (Olivier et al., 2007), or to overtake economic, institutional or normative barriers for entering new markets (De Langen and Pallis, 2007). Nevertheless, this strategic option may force an ITO to acquire facilities located in markets where it already operates, or to enter several new host countries simultaneously. An ITO's decision on the timing within a country and the timing across countries are strongly influenced by the existence of "strategic windows" for entering new markets, i.e., the existence of short temporal intervals in which the fit between market requirements and a firm's competences

reaches an optimum (Abell, 1978). This could correspond to a national port reform process where a country decides to open its previously publically operated terminals to international terminal operators or an existing terminal operator that becomes available for a complete or partial acquisition of its assets.

The combined effect of multiple-site acquisition on Δs_{ma} growth and Δt_{ma} compression determines a significant acceleration in the pace (p_{ma}) of international expansion, measured as follows:

$$p_{ma} = \frac{\Delta s_{ma}}{\Delta t_{ma}} \qquad [1]$$

As the geographic scope and the degree of international diversification of a specific firm may be operationalized through various and diverse indicators (Sullivan, 1994), the international speed may be measured accordingly (Casillas and Acedo, 2013). In this regard, Vermeulen and Barkema (2002) attempted to provide a clearer measurement of these concepts, by defining the speed of a firm's internationalization process as "the number of new foreign expansions a firm undertakes in a certain period of time". Although the number of new subsidiaries (or facilities) is a proxy of ITOs' geographic scope, it provides insightful evidence on the organizational and managerial complexity related to the scope of ITOs' activities worldwide.

Academics also agree that the sudden acceleration of a firm's internationalization process leads to a sharp increase in the managerial and organizational complexity (Nadolska and Barkema, 2007), thereby affecting the rhythm (r_{ma}) of the pathway, i.e. the regularity at which new foreign subsidiaries are established over time (Vermeulen and Barkema, 2002). This phenomenon is measured as follows:

$$r_{ma} = \frac{\Delta p_{ma}}{\Delta t_{ma}} \qquad [2]$$

By applying general management theories in the port domain, the conceptual framework and the arguments developed lead to the following proposition:

Proposition 1: Multiple-site acquisitions impact on spatial and temporal dimensions of an ITO's internationalization by suddenly and sharply enlarging the geographic scope of activities in a compressed timeframe and, therefore, accelerate the pace of international expansion as well as its rhythm (i.e. the '*How?' dimension*).

2.2 Managing multiple-site acquisitions: time compression diseconomies and absorptive capacity

When performing a multiple-site acquisition, a firm is expected to be subjected to time compression diseconomies as the sudden enlargement of the subsidiaries operated and foreign markets entered is accompanied by an increase in the organizational and environmental complexity (Chang, 2011; Yeoh, 2011). The rapid acceleration in the firm's internationalization process produced by a multiple-site acquisition may exhaust absorptive capacity, i.e. the ability to exploit prior experiences to identify new information and to combine it to create useful knowledge in an ongoing business (Cohen and Levinthal, 1990; Simonin, 1999). The resulting inadequate structural adaptation, in turn, may trigger negative effects on the firm's overall performance (Chang, 2011). When a firm operates in different foreign countries, it tends to accumulate a wide spectrum of knowledge, which strengthen its absorptive capacity to identify new business opportunities (Cohen and Levinthal, 1990). Nevertheless, when entering various countries simultaneously, firms need to integrate knowledge from different markets in a compressed timeframe, which challenges the speed of the firm's learning process (Zahra et al., 2000).

It can be argued that the impact of a multiple acquisition on a firm's absorptive capacity also depends on the length of the pre-internationalization phase defined as the number of years since the firm started its internationalization process (Weerawardena et al., 2007) and the overall degree of internationalization it has already reached. Absorptive capacity also refers to the procedural knowledge a firm can transfer from one market to another within the foreign expansion process (Peteraf, 1993; Teece, 1982).

In this regard, contrary to early movers that internationalized in an incremental fashion, latecomer ITOs, i.e. those terminal operators which have begun their foreign expansion at a later stage (late '90s) (Peters, 2001), tend to use multiple-site acquisitions in order to pursue accelerated internationalization patterns. In undertaking their internationalization process, latecomers face a dual dilemma, since they are challenged to balance the search for global outreach with the need to empower competences and capabilities. So, these ITOs tend to enter developing countries (where they can gain size and operational scale and generate profits) and developed countries (in which it is possible to upgrade competences and capabilities) simultaneously, in line with the arguments developed in management studies (Li, 2007; Mathews, 2006).

One key factor mitigating complexity in the ITO industry is that containerization has conferred a standard operational paradigm that can be readily replicated in different port settings. Still, as previously stated, several geographical and regulatory differences exist between countries. Three key concerns arise when studying the effects of multiple-site acquisitions on the spatial and temporal dimensions of an ITO's internationalization pattern: i) the transaction package problem; ii) the

locational diversity problem; iii) the irregular growth path problem. These problems refer to time-compression diseconomies, which negatively affect a firm's absorptive capacity.

The *transaction package problem* refers to the situation that in multiple-site acquisitions some terminals are acquired just because they are in the "transaction package", without being the main target (i.e. the notion of "jewels of the crown") (Notteboom and Rodrigue, 2012; Rodrigue et al., 2011). These (extra) facilities might represent a "burden" at corporate level under various perspectives and could be subjected to withdrawal.

The *locational diversity problem* essentially refers to the quick timeframe of the transaction as well as its overall complexity linked to the entry in multiple locations (often located in different countries) characterized by diverse institutional and legislative backgrounds, cultural and social heritage as well as market conditions (Dunning 2006; Rosenzweig and Singh, 1991; Zahra et al., 2000). Such complexity may raise problems of integration of the new facilities (e.g. in terms of human resources, organization, managerial thinking, etc.) into the international corporation (Bartlett and Ghoshal, 1989; Rozenzweig and Singh, 1991). In multiple-site acquisitions, indeed, the traditional concerns related to the psychological distance at the dyadic level (home country vs. host country) is hardly augmented by multifaceted diversities at the network level (home country vs. various different host countries) (Li, 2003).

Finally, there is *an irregular growth path problem* originating from the growth patterns of the firm resorting to multiple acquisitions that experiences phases of accelerations, and show irregular and discontinuous evolution over time (Delmar et al., 2003; Vermeulen and Barkema, 2002). Multiple-site acquisitions, therefore, by posing an irregular growth path problem, contribute to shape a boom-and-bust cycle (Li, 2003; Li and Chang, 2000) along the overall pattern of its evolution. Therefore, this strategic option may lead to corporate over-fitting and generate problems on long-term performance and corporate responsiveness. The application of the above assumptions to the container port domain leads to this proposition:

Proposition 2: Multiple-site acquisitions create transaction management concerns as they increase organizational and environmental complexity, produce time compression diseconomies and can cause an overstretching of an ITO's absorptive capacity (i.e. the '*Why?' dimension*).

In particular:

Proposition 2a: Multiple-site acquisitions may provoke a transaction package problem imposing an ITO to also acquire "dead weight" assets.

Proposition 2b: Multiple-site acquisitions may provoke locational diversity problems because of the quick entry across multiple locations with different institutional, legislative, economic, cultural and social background.

Proposition 2c: Multiple-site acquisitions may trigger irregular growth path problems, shaping a boom-and-bust cycle along the overall pattern of an ITO's evolution and driving to corporate over-fitting and low performances.

Figure 2 summarises the conceptual framework and the analytic flow and causalities leading to the development of our propositions.

INSERT FIGURE 2 HERE

3. Method

3.1. Empirical context

The fast growing container terminal operating industry represents an interesting field for an empirical investigation of the impact of multiple-site acquisitions on international growth patterns (Notteboom and Rodrigue, 2012; Olivier et al., 2007).

In particular, the acceleration imposed by financial deals recently incited the wide adoption of this "bundling" strategic approach in many financial transactions carried out by ITOs (Rodrigue and Notteboom, 2011). Table 1 reports the main multiple-site acquisitions performed by ITOs during the 1997-2010 period. Empirical evidence underlines the growing magnitude of this phenomenon. In the sampled timeframe 35 relevant multiple-site acquisitions have taken place, involving around 20 ITOs as buyers, coming from 12 countries, and over 30 target companies from 14 nations. Pure stevedores and financial operators emerge as dominant actors in this type of transaction. In 24 cases the target corporation is a pure stevedore whereas in 7 cases a shipping line is involved.

INSERT TABLE 1 HERE

Contractual arrangements to acquire the control over additional terminal facilities range from the simultaneous acquisition of diverse assets/facilities (AS), to the take-over of the whole corporation (CO) and the private negotiation of blocks of shares (SH).

On average each multiple entry targeted 7 new facilities located in 2.8 different countries. This allowed buyer firms to penetrate 2.3 new host country markets. The major transactions were the takeover of ICTSI by Hutchison Port Holdings (2001), the acquisition of P&O Ports by DP World

(2006), and the acquisition of a 20% stake in the HPH holding by PSA International (2006). The overall amount of financial resources committed (when disclosed) in the above transactions surpass USD 38 billion.

Each transaction required on average more than USD 1.5 billion. Not only the amount of the transaction, but also the buyers' willingness to pay underline the strategic importance of multiple acquisitions. ITOs were typically paying multiples of 12 to 25 on EBITDA when 8 to 10 represents the normal (Rodrigue et al., 2011). This suggests that multiple-site acquisitions represent a strategic value to the ITOs next to a pure financial and operational value. The spatial behaviour of the acquisitions is also revealing (Figure 3) as it is dominantly focusing on the three main poles of the global economy, East Asia, Europe and North America.

INSERT FIGURE 3 HERE

Figure 3 also suggests that the most active ports are either major commercial gateways in which ITOs are seeking to position themselves (e.g., Hong Kong, Rotterdam, Long Beach, etc.) or contentious ports with limited commercial opportunities subjected to multiple deals over a short period of time (e.g., Marseille, Teesport, etc.). Thus, commercial strength and fragility are jointly factors of multiple deals.

3.2 Research design and case study selection

Guided by the theoretical framework developed in Section 2, propositions P.1 (*how*) and P.2 (*why*) are empirically tested by analyzing the international growth patterns of two leading ITOs who performed significant multiple-site acquisitions in the selected timeframe: PSA International (PSA) and Dubai Ports World (DPW). The case study methodology is applied, as it is "*an extremely useful technique for researching relationships, behaviors, attitudes, motivations and stressors in organizational settings*" (Berg, 2009, p.331) as well as it is the preferred strategy when "how" or "why" questions are being posed (Yin, 2003). Two cases have been selected because the multiple-case studies technique is recognized as more compelling and robust (Herriott and Firestone, 1983) and allows the investigator to pursue a replication logic thus facilitating both literature replication (i.e. the prediction of similar results) and theoretical replication (i.e. the prediction of contrasting results but for predictable reasons) (Yin, 2003).

After the development of research questions and propositions (see Section 2), i.e. the ITO's internationalization process has been identified as the unit of analysis, while each multiple-site acquisition performed by the ITO within the process was taken as a sub-unit of analysis, leading to

the development of a more complex research design (i.e. multiple embedded cases) (Yin, 2003). Moreover, the embedded longitudinal case studies methodology has been recognized to be a proper technique to advance more complete and consistent knowledge on the internationalization process of multinationals (e.g. Andersen, 1993; Yeoh, 2011).

For selecting the case studies we preliminary defined a number of operational criteria whereby candidates were deemed qualified to serve as cases. In particular, we shortlisted firms by screening several dimensions within the 1997-2010 period, including: *i*) international leadership (market share); *ii*) internationalization speed (average growth per year of foreign TEU throughput; number of additional overseas subsidiaries); *iii*) relevance of multiple-site acquisitions within the internationalization process (number and size of multiple-site acquisitions). As a result, five potential candidates have been identified: APM Terminal (A.P. Møller – Mærsk Group); DPW, Goldman Sachs, Hutchison Port Holding and PSA. For each candidate we assessed their suitability for the research objectives. Finally, PSA and DPW have been selected due to their unique accelerated growth patterns and the undertaking of the biggest multiple acquisitions ever, as widely recognized by academic literature (Olivier et al., 2007; Rodrigue and Notteboom, 2011). In addition, these companies rely the strongest on multiple-site acquisitions to support their internationalization path and are therefore more likely to have encountered problems related to the time-compression diseconomies linked to these transactions.

Documents describing and commenting on the international process of the sample ITOs and their multiple-site acquisitions were collected and screened. The main sources include ITO's press releases, company's websites and annual reports as well as archival records. Information has been cross-referenced and corroborated by additional contents provided in the media and academic contributions. Local and foreign media reports such as The Wall Street Journal, The Washington Post, The Business Times Singapore, South China Morning Post and The Straits Time (Singapore) were collected from Nexis-Lexis Academic database. Data has been further cross-checked by consulting other specialized sources including World Cargo News, Lloyds List, Journal of Commerce and American Association of Ports Authorities (AAPA), and Drewry Shipping Consultants annual reports. Academic contributions related to sample ITO's multiple acquisition were gathered from Transportation database.

To investigate the impact of multiple-site acquisitions on corporate growth patterns of the ITOs we collected: *i*) 119 press releases from domestic media reports; *ii*) 61 press releases from foreign media reports; *iii*) 14 corporate annual reports (8 for PSA and 6 for DPW); *iv*) a number of conference, roadshows and annual general meetings.

Each document has been examined, categorized and tabulated to address the main propositions of the study according to a pre-defined protocol. Data collection and organization were driven by the propositions investigated, and the gathering process was performed by applying overriding principles of evidence collection, i.e. multiple sources of evidence for triangulation purposes (Deng, 2010), the development of a case study database and a chain of evidence (Yin, 2003).

Finally, the case studies reports have been additionally validated, using open-ended interviews with middle-management from ITOs' regional headquarters as source of corroboratory or contrary evidence. The first-hand experience of some of the authors as advisers/experts in specific acquisition processes of the selected ITOs concludes the range of inputs for the case studies.

Overall the research design abided to four criteria, as suggested by literature (Trochim, 1989; Yin, 2003): *i)* construct validity (we use multiple sources of evidence, established a clear chain of evidence and corroborate the draft case study report interviewing key informants); *ii*) internal validity (we tested the existence of pattern-matching and produced logic models); *iii*) external validity (we applied replication logic in multiple-case studies to verify outcomes generalizability); *iv*) reliability (we used an ad-hoc protocol for collecting information and produced a database related to ITO's multiple-site acquisition).

4. Empirical evidence

In this section, the internationalization patterns of the two sample ITOs, i.e. PSA International and Dubai Ports World, are discussed in order to identify the effects of multiple-site acquisitions on spatial and temporal dimensions, as well as the major concerns related to the management of the transaction package in a concrete setting. The two selected case studies also share some valuable commonalities, as they are publicly owned companies with a corporatized management. In addition, PSA and DPW unveil a peculiar strategic impetus in overseas growth because of their high-growth domestic demand, the availability of cash flow and the development of technology and know-how which are replicable abroad. In this vein, the two ITOs show a strategic and geopolitical value for their respective governments, as the multiple-site acquisitions made by PSA and DPW strengthen the position of the two States on an international scale. Nevertheless, empirical evidence unveils that multiple-site acquisitions not only accelerate the firm's internationalization process but may also put the firm's absorptive capacities under pressure, inciting managerial and organizational concerns.

The multiple-site acquisitions of PSA and DPW have been performed through cross-border M&A operations implying a long process of implementation and integration among diverse organizations. The sample case studies provide evidences of transaction package problems, locational diversity problems and irregular growth path problems affecting spatial and temporal dimensions of ITO's

internationalization patterns. The outcomes, therefore, question the sustainability of this pattern of internationalization.

4.1. The PSA International case

PSA, with its global headquarters and home port in Singapore, is the leading container terminal operator in the world (Notteboom and Rodrigue, 2012). The company is owned by the Temasek Holding. Which is itself a subsidiary of the Ministry of Finance of Singapore. In essence, PSA is a public terminal operating company characterized by an efficiency-driven management style. The original Port of Singapore Authority (PSA) was founded in 1964, while in 1997 it was corporatized to become PSA Corporation with the specific mission to expand into investing, developing and operating international port terminals.

PSA first built a stronghold at its home base of Singapore before undertaking internationalization. Once the company established itself as an international benchmark, its ambitions went global through a mixed strategy of organic growth and acquisitions backed by a sound financial status. This development accelerated in the late 1990s when its Singapore terminals faced increasing competition from neighbouring Port Klang and Tanjung Pelepas in Malaysia.

Figure 4 presents the internationalization process of PSA, focusing on key internationalization events. The timeline indicates the start of operations as well as the start of the internationalization process and the temporal location of multiple-site acquisitions.

INSERT FIGURE 4 HERE

The multiple-site acquisitions of PSA came in various forms and sizes, but overall this entry strategy proved to be a key component of PSA's internationalization process (see Table 2).

INSERT TABLE 2 HERE

After its first international port project in Dalian (China) in 1996, PSA International entered the European market in 1998 by undertaking its first multiple-site acquisition (60% share of the Italian logistics company Sinport). In March 1999, PSA Corporation's Group President Khoo Teng Chye stated: "*PSA's investment in Sinport is its first major investment in Europe, in line with our strategy of becoming a world-wide port and logistics company*". For obtaining the jewel in the Sinport crown (Voltri Terminal Europa, VTE, in the port of Genoa) PSA was required to take also control of residual facilities included in the transaction package. When entering the European market PSA was triggered

to face for the first time a location diversity problem, for the on-going transformation taking place at EU institutional and regulatory level. The merger and acquisition (M&A) knowledge developed during the multi-step acquisition process, fostered PSA absorptive capabilities given the moderate size of the transaction.

This prepared the ground for a second crucial entry of much higher magnitude: the acquisition of Hesse-Noordnatie (HNN) in Belgium in March 2001. The HNN transaction can be categorised as a "multiple acquisition within a country" (*option a*). The acquisition was completed after the Belgian competition authorities gave clearance in the summer of 2001. The take-over of HNN involved a large number of container, roro and breakbulk terminals in the Belgian ports of Antwerp and Zeebrugge. The deal represented a key transaction for PSA as it enabled the company to instantly get a strong foothold in the Rhine-Scheldt Delta, the most important multi-port gateway region in Europe (Notteboom, 2010). It also gave PSA strong leverage to regionally compete with Hong Kong-based Hutchison Port Holdings (HPH) who in 1999 took over ECT, by far the largest container terminal operator in Rotterdam, the biggest container port of Europe and the most important competitor of the Belgian ports of Antwerp and Zeebrugge.

The scale of the HNN take-over (both in terms of number of terminals and financial resources required) as well as the speed of entry in this foreign and highly competitive terminal market confronted PSA with time-compression diseconomies. First, soon after the take-over it became clear that PSA had no interest in operating other terminals than container terminals. However, since HNN's business portfolio included large-scale car terminals and breakbulk facilities, PSA got confronted with a transaction package problem. In the years after the take-over PSA gradually sold all their Belgian non-container activities, according to insiders at a less than favourable price.

Secondly, PSA to a certain degree also faced a locational diversity problem despite the fact that both Antwerp and Zeebrugge are in the same country and only 100 km apart. The differences between the governance systems and practices in both ports and in the organization of the dock labour pools made it difficult to treat and manage the Antwerp and Zeebrugge facilities in the same way. These differences might have played a role in PSA's decision taken in 2010 to restructure the Belgian branch, renouncing to integrate the two organizational structures. While before PSA HNN was in charge of all terminals in Belgium, the modified company structure at local level now consists of an Antwerp business unit (PSA Antwerp) and a Zeebrugge business unit (PSA Zeebrugge) each with separate KPI targets set by the headquarters in Singapore.

Finally, the acquisition of HNN generated an irregular growth path in PSA's internationalization process. At present, the terminals in Belgium still remain the largest terminal facilities of PSA outside Singapore. At the time of the take-over, it was by far the largest acquisition in PSA's short

internationalization history. As all previous steps towards internationalization were small compared to the scale of home port Singapore, the large scale entry in Belgium marked the real start of PSA's path towards less reliance on Singapore. Hence, the Antwerp facilities became a sort of test bed for PSA's global strategy, and determined an impressive acceleration in PSA internationalization pace.

After having assimilated the magnitude of such transaction, a few years later PSA targeted the home base of its main competitor, Hutchison Port Holdings (HPH). In 2005, PSA undertook two other multiple entries by acquiring a 20% share in Hong Kong International Terminals (HIT) and then the facilities of NWS Holdings in the port of Hong Kong, traditionally characterized by high entry barriers. This aggressive move was just the prologue before the achievement of the real strategic objective of PSA, to undermine the global leadership of HPH. One year later PSA performed its most important transaction by acquiring a 20% share in the HPH holding. Although the minority shareholding was mainly driven by financial objectives, the magnitude of the transaction (4.4 billion USD) represented a shock in the regularity of the path of internationalization, leading Ms Grace Fu, PSA International's CEO for South-east Asia and Japan, to state that "*The costs of acquiring ports have risen 'astronomically' and the business is getting a lot more competitive. When there is a privatisation or sale of ports, many of the big container terminal operators get involved in the bidding. So we have to be flexible. The key is to be able to compete with gusto but, at the same time, keep a level head*" (The Straits Time, Singapore, May 2006). This operation in principle allowed to enter 38 terminals located in 18 countries (5 new regions and 14 new countries), consigning the world leadership to PSA. In practice, the impact of PSA's minority shareholding in HPH was only situated at a pure strategic, (top) managerial and financial level with hardly any implications at the operational and organizational levels. To date the HNN take-over proved to be PSA's biggest test in terms of the firm's absorptive capacity when engaging in a multiple acquisition. The case of PSA underlines that the pre-existing role of Singapore as a global financial hub and a long history of commercial interactions is associated with a cultural and commercial environment which is prone to internationalization.

4.2. The Dubai Ports World case

Dubai Ports World (DPW) is part of the Dubai World holding company owned by the government of Dubai in the United Arab Emirates. DP World was founded in 2005 by merging Dubai Ports Authority and Dubai Ports International (DPI). The latter company was founded in 1999 to develop an internationalization strategy leading to several projects in the early 2000s in Jeddah, Djibouti, India and Constanta (Figure 5).

INSERT FIGURE 5 HERE

DPI took the first major step towards the establishment of a more comprehensive global network by acquiring CSX World Terminals in January 2005. This multiple-site acquisition involved major operations in Hong Kong and China as well as operations in Australia, Germany, the Dominican Republic and Venezuela. This transaction can thus be categorised as a "multiple acquisition within and across countries" (option c). After the creation of DPW in late 2005, the company developed even stronger ambitions to transform Dubai into a global hub port and to join the top players in the container terminal industry. The second and biggest step forward came with the take-over of P&O Ports. Including joint venture interests, P&O Ports handled 13.8 million TEU in 2005 implying that the addition of P&O Ports lifted DPW from around 11 million TEU in 2005 to about 25 million TEU in 2006, ahead of APM Terminals and much closer to PSA and HPH. The transaction price was viewed as very high. Part of the explanation is that PSA and DPW got in a price war to get their hands on P&O Ports. The access to skilled people was another factor behind the (high) price paid by DPW. Mohammad Sharaf, DPW CEO at the time, phrased it as follows: "*skilled people don't come ready-made, you have to grab them as and when they are available, keep them and when the time is right you deploy them and it pays off. This long-term view was also a factor into DPW's valuation of P&O's terminal network. [..]Our strategy is to develop and grow our business long-term, not short term, and if you look at the assets we acquired like in Europe, these assets don't come easy and they don't come fast."* (The Business Times, Singapore, May 2006).

The fact that the P&O Ports take-over came very soon after the CSX World Terminals transaction and that both involved multiple acquisitions within and across countries (option c) greatly added to the complexity, time compression diseconomies and absorptive capacity challenges for DPW. By strongly relying on the existing operational expertise and organizational skills in the acquired companies, DPW tried to keep the managerial implications of the wave of acquisitions for its staff to a minimum.

DPW faced a transaction package problem of a unique kind when taking over P&O Ports' global portfolio. The sale of the P&O ports activities in major US seaports to DPW led to a national US controversy in early 2006. Although the sale was approved by the executive branch of the United States Government, various United States political figures argued that the takeover would compromise US national security, thereby explicitly referring to the Middle Eastern background of DPW. In March 2006, the US House Panel blocked the deal. In the end, DPW decided to sell P&O's American operations to American International Group (AIG) for an undisclosed sum. As a consequence, DPW's terminal in Vancouver remains its only facility in North America.

Figure 5 reveals that the historical CSX World Terminals and P&O Ports portfolios (excl. US activities) together represent some 80% of the current number of terminals operated by DPW. The potentially huge locational diversity problem linked to the acquisition of P&O Ports was partly solved by having former P&O Ports managers run most of the global operations. Sticking to existing management also helped to channel the challenges linked to the highly irregular growth path DPW faced in its recent internationalization strategy. Since 2007, the company is no longer involved in multiple-site acquisitions but relies more on smaller scale single acquisitions and greenfield developments. The company has also divested. In December 2010, DPW took the decision to revise the initial P&O Ports transaction package by selling a stake in its Australian unit (originally part of P&O Ports) for USD 1.5 billion. The deal allowed the company to remain actively involved in Australia while helping cut debt. In press statements, Chairman Sultan Ahmed bin Sulayem underlined there was no plan to sell assets in any other region. The divestment transaction should be considered as a strategic step by DPW to better manage the financial means and to use it in higher-margin markets of South Asia, Africa and South America. In this vein, the original transaction package of the multiple-site acquisition of P&O Ports has been altered towards higher-margin markets. Moreover, the DPW case questions the long-term sustainability of an aggressive growth strategy paved on multiple-site acquisitions.

Table 3 summarizes DPW's multiple acquisitions, focusing on both spatial and temporal dimension of the internationalization process as well as managerial and organizational concerns. While the complexity is the highest in a scenario of a multiple acquisition within and across countries (option c), the DPW case suggests that a fast international growth can be achieved through acquisition. Nevertheless, aiming to develop a sustainable strategy, a strong focus on target companies with a rich global expertise (i.e. CSX World Terminals and P&O Ports) is needed. In this vein, in fact, DPW tried to solve managerial and organizational concerns originating from the implementation process by keeping the local staff and management as much as possible on board as well as paying attention to the integration process among organizational structures.

INSERT TABLE 3 HERE

5. Discussion and Implications

Empirical evidence from multiple embedded cases provides a background for assessing the impact of multiple-site acquisitions on ITOs' internationalization pattern. The case histories illustrate *"how"* this aggressive entry strategy affects spatial and temporal dimensions of ITOs' overseas growth, by suddenly and sharply enlarging the geographic scope of activities in a compressed timeframe

(*Proposition 1*). Multiple-site acquisitions performed by the sample ITOs, indeed, have clearly accelerated their pace and rhythm of international expansion.

In the early stages of internationalization, multiple-site acquisitions are a viable strategic option for latecomer ITOs pursuing aggressive catching-up strategies. Nevertheless, in this inception phase, ITOs risk to underestimate the complexity of cross-border acquisitions and exaggerate the synergies and opportunities of this strategic option as suggested by mainstream management literature (Child et al., 2001).

Empirical evidence unveils that due to the complexity and the duration of bidding procedures and the limited time windows opportunities characterizing the port business (Jacobs and Notteboom, 2011; Parola et al., 2013a), the undertaking of multiple-site acquisitions remains an appealing strategy across the entire internationalization process, despite the problems they may raise.

The PSA International and DPW cases explain *"why"* multiple-site acquisitions may generate transaction management concerns. By increasing organizational and environmental complexity, multiple-site acquisitions produce time compression diseconomies, and can overstretch ITO's absorptive capacity (*Proposition 2*).

By addressing and testing Propositions 1 and 2, the paper adds to the existing port literature with the development of a conceptual framework that sheds some lights on the causalities among multiple acquisitions, the spatial and temporal dimension of internationalization, and managerial concerns.

The contribution also provides a number of managerial implications. In particular, managers have to evaluate carefully the opportunity of carrying out major multiple-site acquisitions. Such transactions allow to increase rapidly the number of subsidiaries and the number of countries (geographic scope) in which the corporation is present. However, they can result in transactional acquisition values (bundling price of the target facilities) reaching beyond the real book and/or market value of the assets. More importantly, they commonly generate some organizational and managerial concerns related to the accelerated growth.

While selecting an entry mode and exploring growth options, managers are first invited to take into account organic solutions, such as privatization or greenfield projects. For instance, a "carpet bombing strategy" in approaching (many) simultaneous bidding procedures could drive to similar results (in terms of geographic scope, not in terms of entry timing) of a multiple acquisition.

Moreover, the multiple embedded cases allow to identify those conditions under which one of the main managerial and organizational concerns is more likely to be found (or with a higher impact on the ITO's internationalization process) as well as the conditions when it is not likely to be found (or with a lower impact). In other terms, empirical evidence provides useful insights for developing a rich theoretical framework about those conditions that could produce different results within a

multiple acquisition process. Table 4 articulates some of these relevant conditions more explicitly and shows for each typology of managerial and organizational concern its moderating (-) or leveraging (+) effect.

INSERT TABLE 4 HERE

When addressing multiple acquisition choices, managers have to consider the complexity of the overall transaction from diverse perspectives. First, the transaction size, i.e. the number of facilities/countries simultaneously entered as well as the total amount of financial resources committed, dramatically increases transactional package problem and irregular growth path problem (see PSA's takeover of HNN).

Second, the number of the new countries (or cultural areas) which are entered through the multiple-site acquisition, and the "cultural distance" (psychic distance) between the home country and the new host countries are expected to deeply worsen the location diversity problem (as the case of the DPW takeover of CSX World Terminals underlined). Multiple-site acquisition involving the entry in a wide array of new countries and regions have been found to create conflicts over the degree of cultural adaptation and obstacles in achieving integration benefits consistent with evidences from other sectors (Bjorkman et al., 2007; Stahl and Voigt, 2008). Clashes between different organizational practices are commonly expected when the new countries entered are characterized by different legal systems, regulatory hurdles and language (Shimizu et al., 2004).

Third, the degree of complexity of the transaction is potentially very different as it depends on the nature and the magnitude of the deal. Solutions can range from the simultaneous acquisition of diverse assets/facilities (AS), to the take-over of the whole corporation (CO) and the private negotiation of blocks of shares (SH). Managers are therefore strongly encouraged to consider the repercussions of diverse contractual arrangements on the sustainability of the firm's internationalization pattern. For example, an exclusive financial involvement may lower transaction package problem and location diversity problem, imposing to the ITO a limited managerial and organizational commitment (such as the PSA acquisition of a 20% share in HPH).

The international knowledge previously accumulated as well as the prior experience in M&A operations, moreover, may significantly moderate the managerial and organizational concerns originating from multiple-site acquisitions as argued by managerial literature (Tuppura et al., 2008). The accumulation of international experience boosts firms' absorptive capacity, favours the creation of *ad-hoc* procedures and routines for identifying, combining and exploiting knowledge in new markets (Cohen and Levinthal, 1990; Chang, 2011), and therefore reduces location diversity problems

(see the problem encountered by PSA in its first multiple-site acquisition of Sinport facilities). Moreover, previous experience in M&A activities enable managers to correctly estimate the complexities of foreign acquisitions and not exaggerate the synergies from combination of the acquired assets (Child et al., 2001). The acquisition of HIT and NWS Holding terminals in Hong Kong by PSA is a valuable application of this concept in the port domain.

Finally also the institutional and regulatory conditions, as well as the competitive dynamics of the foreign markets entered should be carefully monitored by ITO's managers due to their attitude to emphasize both transaction package and location diversity problems (see the DPW purchase of P&O Ports network).

6. Limitations and conclusion

By addressing the container port industry, the study contributed to the debate on the effects of multiple-site acquisitions in location-bound services, stimulating in-depth analysis on spatial and temporal dimensions. Investigating multiple embedded cases, the paper analysed the impact of multiple acquisitions on the sustainable growth of ITOs, identifying critical managerial and organizational concerns.

Nevertheless, the contribution still faces some inherent limitations. First, the theoretical propositions developed in the paper should be corroborated by testing them on a wider sample of ITOs. In this sense the application of complementary research methods (e.g. OLS regression, etc.) are expected to provide more sound statistical outcomes.

Second, this paper neglects to measure the magnitude of managerial and organizational concerns provoked by multiple-site acquisitions, identifying *ad-hoc* quantitative indicators. In particular, further studies would help to define proper key performance indicators and assess the impact of multiple acquisitions on the sustainability of an ITO's internationalization path.

Third, the study omits to identify and discuss indicators measuring the consequences of multiple-site acquisitions at corporate level, in terms of operational and financial performance.

Finally, by setting aside the sample timeframe further studies need to consider if the multiple-site acquisitions experienced in recent years are just a transitional phase towards a more mature industry characterized by several global actors with various regional portfolios. The "window of opportunity" for large deals may already have closed. Apparently, the only markets where such multiple-site acquisition strategies may still be possible are in Latin America and Africa.

References

Abell, D.F. (1978) 'Strategic Windows', *Journal of Marketing*, July, pp.21-26.

Airriess, C.A. (2001) 'The Regionalization of Hutchison Port Holdings in Mainland China', *Journal of Transport Geography*, Vol. 9 No.4, pp.267-278.

Andersen, O. (1993) 'On the internationalization process of firms: a critical analysis', *Journal of International Business Studies*, Vol. 24, pp.209-231.

Bartlett, C.A. and Ghoshal, S. (1989) *Managing across Borders: the Transnational Solution*, Harvard Business School Press, Boston, MA.

Belderbos, R. (2003) 'Entry mode, organizational learning, and R&D in foreign affiliates: evidence from Japanese firms', *Strategic Management Journal*, Vol. 24 No.3, pp.235-259.

Berg, B.L. (2009) *Qualitative research methods for the social sciences*, 7th ed., Allyn & Bacon, Boston, MA.

Billington, N. (1999) 'The location of foreign direct investment: An empirical analysis', *Applied Economics*, Vol. 31 No.1, pp.65-76.

Bjorkman, I., Stahl, G.K. and Vaara, E. (2007) 'Cultural differences and capability transfer in cross-border acquisitions: The mediating roles of capability complementarity, absorptive capacity, and social integration', *Journal of International Business Studies*, Vol. 38, pp.658-672.

Brouthers, K.D. and Brouthers, L.E. (2003) 'Why Service and Manufacturing Entry Mode Choices Differ: The Influence of Transaction Cost Factors, Risk and Trust', *Journal of Management Studies*, Vol. 40 No.5, pp.1179-1204.

Casillas, J.C. and Acedo, F.J. (2013) 'Speed in the Internationalization Process of the Firm', *International Journal of Management Reviews*, Vol. 15 No.1, pp.15-29.

Chang, C.-C., and Chen, J.L. (2012) 'A foreign expansion model with multisite locations in service industries', *International Journal of Production Economics*, Vol. 136, pp. 102-109.

Chang, J. (2011) 'The early and rapid internationalization of Asian emerging MNEs', *Competitiveness Review: An International Business Journal*, Vol. 21 No.2, pp.171-187.

Child, J., Faulkner, D. and Pitkethly, R. (2001) *The Management of International Acquisition*, Oxford University Press, Oxford.

Cohen, W.M. and Levinthal, D.A. (1990) 'Absorptive capacity: A new perspective on learning and innovation', *Administrative Science Quarterly*, Vol. 35, pp.128-152.

De Langen, P.W. and Pallis, A.A. (2007) 'Entry barriers in seaports', *Maritime Policy & Management*, Vol. 34 No.5, pp.427-440.

Delmar, F., Davidsson, P. and Gartner, W. (2003) 'Arriving at the high growth firm', *Journal of Business Venturing*, Vol. 18 No.2, pp.189-216.

Deng, P. (2010) ‘Absorptive capacity and a failed cross-border M&A’, *Management Research Review*, Vol. 33 No.7, pp. 673-682.

Dow, D. and Karunaratna, A. (2006) ‘Developing a multidimensional instrument to measure psychic distance stimuli’, *Journal of International Business Studies*, Vol. 37, pp.578-602.

Drewry Shipping Consultants (2011) *Annual Review of Global Container Terminal Operators*, London, UK.

Dunning, J.H. (2006) ‘Towards a paradigm of development: implications for the determinants of international business activity’, *Transnational Corporations*, Vol. 15 No.1, pp.173-227.

Globerman, S. and Shapiro, D. (2002) ‘Global foreign direct investment flows: the role of governance infrastructure’, *World Development*, Vol. 30 No.11, pp.1899-1919.

Hadjikhani, A. (1997) ‘A Note on the Criticisms Against the Internationalization Process Model’, *Management International Review*, Vol. 37 No.2, pp.43-66.

Herriott, R.E., Firestone, W.A. (1983) ‘Multisite qualitative policy research: Optimizing description and generalizability’, *Educational Research*, Vol. 12, pp.14-19.

Jacobs, W. and Notteboom, T. (2011) ‘An evolutionary perspective on regional port systems: the role of windows of opportunity in shaping seaport competition’; *Environment and Planning A*, Vol. 43 No.7, pp.1674-1692.

Li, P.P. (2003) ‘Towards a geocentric theory of multinational evolution: the implications from the Asian MNEs as latecomers’, *Asia Pacific Journal of Management*, Vol. 20 No.2, pp.217-242.

Li, P.P. (2007) ‘Toward an integrated theory of multinational evolution: the evidence of Chinese multinational enterprises as latecomers’, *Journal of International Management*, Vol. 13 No.3, pp.296-318.

Li, P.P. and Chang, S.T. (2000) ‘The Asian paradox of miracle and debacle: an exploratory study’, *International Finance Review*, Vol.1, pp.429-453.

Ma, X. and Delios, A. (2007) ‘A new tale of two cities: Japanese FDIs in Shanghai and Beijing, 1979-2003’, *International Business Review*, Vol. 16 No.2, pp.207-228.

Mathews, J.A. (2006) ‘Dragon multinationals: new players in 21st century globalization’, *Asia Pacific Journal of Management*, Vol. 23 No.1, pp.5-27.

Mitra, D. and Golder, P.N. (2002) ‘Whose culture matters? Near-market knowledge and its impact on foreign market entry timing’, *Journal of Marketing Research*, Vol. 39 No.3, pp.350-365.

Nadolska, A. and Barkema, H.G. (2007) ‘Learning to internationalize: The pace and success of foreign acquisitions’, *Journal of International Business Studies*, Vol. 38 No.7, pp.1170-1186.

Notteboom, T. (2010) ‘Concentration and the formation of multi-port gateway regions in the European container port system: an update’, *Journal of Transport Geography*, Vol. 18 No.4, pp.567-583.

Notteboom, T. and Rodrigue, J.P. (2012) ‘The corporate geography of global container terminal operators’, *Maritime Policy & Management*, Vol. 39 No.3, pp.249-279.

Notteboom, T., Verhoeven, P. and Fontanet, M. (2012) ‘Current practices in European port on the awarding of seaport terminals to private operators: towards an industry good practice guide’, *Maritime Policy & Management*, Vol. 39 No.1, pp.107-123.

Olivier, D. (2005) ‘Private Entry and emerging partnerships in the container terminal industry: evidence from Asia’, *Maritime Economics & Logistics*, Vol. 7 No.2, pp.87-115.

Olivier, D. (2010) *Dynamics of Globalisation in the Container Port Industry: Asia Rising*, VDM Verlag Dr. Müller, Saarbrücken.

Olivier, D., Parola, F., Slack, B. and Wang, J. (2007) ‘The time scale of internationalization: the case of the container port industry’, *Maritime Economics & Logistics*, Vol. 9 No.1, pp.1-34.

Pallis, A.A., De Langen, P.W. (2010) ‘Seaports and the Structural implications of the economic crisis’, *Research in Transportation Economics*, Vol. 27 No.1, pp.10-18.

Pallis, A.A., Notteboom, T. and De Langen, P.W. (2008) ‘Concession agreements and market entry in the container terminal industry’, *Maritime Economics & Logistics*, Vol. 10 No.3, pp.209-228.

Parola, F., Lee, S.W. and Ferrari, C. (2006), ‘On the integration of logistics activities by shipping lines: The case of East-Asia’, *Journal of International Logistics and Trade*, Vol. 4 No. 1, pp.113-136.

Parola, F., Satta, G. and Persico, L. (2013a) ‘Time, space, and international diversification of service firms: Assessing the abnormal growth of container port MNEs’, *Journal of Industrial and Business Economics*, Vol. 40 No. 1, pp. 89-115.

Parola, F., Satta, G., Persico, L. and Di Bella, E. (2013b) ‘Entry mode choices in international markets: examining the antecedents of service firms’ strategies’, *International Journal of Globalization and Small Business*, Vol. 5 No.1/2, pp.34-57.

Peteraf, M.A. (1993) ‘The cornerstones of competitive advantage: a resource-based view’, *Strategic Management Journal*, Vol. 14, pp.179-191.

Peters, H. (2001) ‘Developments in Global Seatrade and Container Shipping Markets: Their Effects on the Port Industry and private Sector Involvement’, *International Journal of Maritime Economics*, Vol. 3, pp.3-26.

Roberts, J. (1999) ‘The internationalization of Business Service Firms: A Stage Approach’, *The service Industries Journal*, Vol. 19 No. 4, pp.68-88.

Rodrigue, J-P., Notteboom, T. and Pallis, A.A. (2011) 'The financialisation of the port and terminal industry: revisiting risk and embeddendness', *Maritime Policy & Management*, Vol. 38 No.2, pp.191-213.

Rosenzweig, P.M. and Singh, J.V. (1991) 'Organizational Environments and the Multinational Enterprise', *The Academy of Management Review*, Vol. 16 No.2, pp.340-361.

Satta, G., Parola, F. and Persico, L. (2014) 'Temporal and Spatial Constructs in Service Firms' Internationalization Patterns: The Determinants of the Accelerated Growth of Emerging MNEs', *Journal of International Management*, doi: dx.doi.org/10.1016/j.intman.2014.05.001

Shimizu, K., Hitt, M.A., Vaidyanath, D. and Pisano, V. (2004) 'Theoretical foundations of crossborder mergers and acquisitions: A review of current research and recommendations for the future', *Journal of International Management*, Vol. 10, pp.307-355.

Simonin, B.L. (1999) 'Ambiguity and the process of knowledge transfer in strategic alliances', *Strategic Management Journal*, Vol. 20, pp.595-623.

Stahl, G.K. and Voigt, A. (2008) 'Do cultural differences matter in mergers and acquisitions? A tentative model and examination', *Organization Science*, Vol. 19 No.1, pp.160-176.

Sullivan, D. (1994) 'Measuring the Degree of Internationalization of a Firm', *Journal of International Business Studies*, Vol. 25 No.2, pp.325-342.

Tan, B. and Vertinsky, I. (1996) 'Foreign Direct Investment by Japanese Electronics Firms in the United States and Canada: Modeling the Timing of Entry', *Journal of International Business Studies*, Vol. 27 No.4, pp.655-681.

Teece, D.J. (1982) 'Towards an economic theory of the multiproduct firm', *Journal of Economic Behaviour and Organisation*, Vol. 3, pp.39-63.

Theodosiou, M. and Leonidou, L.C. (2003) 'Standardization versus adaptation of international marketing strategy: an integrative assessment of the empirical research', *International Business Review*, Vol. 12 No.2, pp.141-171.

Trochim, W. (1989) 'Outcome pattern matching and program theory', *Evaluation and Program Planning*, Vol. 12, pp.355-366.

Tuppura, A., Saarenketo, S., Puumalainen, K., Jantunen, A. and Kyläheiko, K. (2008) 'Linking knowledge, entry timing and internationalization strategy', *International Business Review*, Vol. 17, pp.473-487.

Vermeulen, F. and Barkema, H. (2002) 'Pace, rhythm, and scope: process dependence in building a profitable multinational corporation', *Strategic Management Journal*, Vol. 23 No.7, pp.637-653.

Warner, M., Ng, S.H. and Xu, X. (2004) 'Late development' experience and the evolution of transnational firms in the People's Republic of China', *Asia Pacific Business Review*, Vol. 10 No.3/4, pp.324-345.

Weerawardena, J., Mort, G.S., Liesch, P.W. and Knight, G. (2007) 'Conceptualizing accelerated internationalization in the born global firm: A dynamic capabilities perspective', *Journal of World Business*, Vol. 42, pp.294-306.

Yeoh, P.-L. (2011) 'Location choice and the internationalization sequence: Insights from Indian pharmaceutical companies', *International Marketing Review*, Vol. 28 No.3, pp.291-312.

Yin, R.K. (2003) *Case Study Research: Design and Methods*, 3rd ed., Sage Publication, Thousand Oaks, CA.

Zahra, S. A. and George, G. (2002) 'International entrepreneurship: the current status of the field and future research agenda', in Hitt, M.A. et al. (Eds.), *Strategic Entrepreneurship: Creating a New Mindset*, Blackwell, Oxford, pp.255–288.

Zahra, S., Ireland, D. and Hitt, M. (2000) 'International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance', *Academy of Management Journal*, Vol. 43, pp.925-950.

Zhang, Y., Li H., Li, Y. and Zhou, L.-A. (2010) 'FDI spillovers in an emerging market: the role of foreign firms' country origin diversity and domestic firms' absorptive capacity', *Strategic Management Journal*, Vol. 31 No.9, pp.969-989.

Table 1 – Main multiple-site acquisitions in the container port industry (1997-2010)

Year	*Buyer*			*Target company*			*Transaction package*			*Transaction data*	
	Name	*Typology**	*Country of origin*	*Name*	*Typology**	*Country of origin*	*N. of terminals*	*N. of countries*	*N. of new countries*	*Type***	*Transaction value (data in million $)*
1997	Neptune Orient Lines (NOL)	C	Singapore	American President Lines (APL)	C	USA	10	5	5	CO	825
1998	China Merchant Holdings (CHM)	F	Hong Kong	Modern Terminal Limited (MTL)	F	Hong Kong	4	1	0	SH (20.3%)	1,700
1998	PSA Corporation (PSA)	S	Singapore	Sinport	S	Italy	2	1	1	SH (60%)	undisclosed
1999	CSX World Terminals (CSX)	S	USA	Sealand	C	USA	7	6	6	AS	undisclosed
1999	Eurokai	S	Germany	Contship Italia	S	Italy	3	1	1	SH (34%+66%)	undisclosed
1999	Maesk Line (Maersk)	H	Denmark	Sealand	C	USA	13	2	1	CO	800
1999	P&O Ports	S	UK	International Terminal Operating Co. (ITO)	S	USA	5	1	1	CO	93
2001	Hutchison Port Holdings (HPH)	S	Hong Kong	ECT Rotterdam	S	Netherlands	2	1	1	CO	589
2001	Hutchison Port Holdings (HPH)	S	Hong Kong	Int. Container Terminal Services Inc. (ICTSI)	S	Philippines	8	6	6	AS	563,4
2002	PSA Corporation (PSA)	S	Singapore	Hesse Noord Natie	S	Belgium	5	1	1	CO	717
2002	Hutchison Port Holdings (HPH)	S	Hong Kong	Hyundai Merchant Marine (Hyundai)	C	South Korea	4	1	1	AS	215
2002	Nippon Yusen Kaisha (NYK)	H	Japan	Ceres	S	USA	5	3	2	CO	250
2003	CMA-CGM	H	France	EGIS Ports	S	France	3	1	1	SH (80%)	undisclosed
2003	P&O Ports	S	UK	EGIS Ports	S	France	4	1	1	SH (20%)	undisclosed
2004	Dubai Ports World (DPW)	S	UAE	CSX World Terminals (CSX)	S	USA	7	6	6	CO	1,150
2005	PSA Corporation (PSA)	S	Singapore	Hong Kong International Terminals (HIT)	S	Hong Kong	5	1	1	SH (20%)	925
2005	China Merchant Holdings (CHM)	F	Hong Kong	Shanghai Int. Port Group (SIPG)	S	China	9	1	0	SH (30%)	undisclosed
2005	PSA Corporation (PSA)	S	Singapore	NWS Holding	F	Hong Kong	2	1	0	AS	386
2006	Babcock & Brown Infrastructures (B&B)	F	Australia	PD Ports	S	UK	4	2	2	CO	1,368
2006	RREEF (Deutsche Bank)	F	Germany	Maher Terminals	S	USA	2	2	2	CO	2,100
2006	Dubai Ports World (DPW)	S	UAE	P&O Ports	S	UK	33	15	12	CO	6,800
2006	Goldman Sachs	F	USA	Associated British Ports (ABP)	S	UK	7	1	1	SH (23.33%)	4,600
2006	Macquarie	F	Australia	Hanjin Terminals (Hanjin)	C	South Korea	6	3	3	SH (40%)	870
2006	APM Terminals (Maersk)	H	Denmark	P&O Nedlloyd (PONL)	C	UK-Netherlands	2	2	1	CO	undisclosed
2006	PSA Corporation (PSA)	S	Singapore	Hutchison Port Holdings (HPH)	S	Hong Kong	38	18	14	SH (20%)	4,400
2007	RREEF (Deutsche Bank)	F	Germany	Peel Ports	S	UK	4	2	2	SH (49%)	1,430
2007	Goldman Sachs	F	USA	Stevedoring Services Association (SSA)	S	USA	12	4	4	SH (49%)	2,800
2007	Ontario Teachers Pension Fund (OTTP)	F	Canada	Orient Overseas Container Line (OOCL)	C	Hong Kong	4	2	2	AS	2,350
2007	Ports America (Highstar Capital)	F	USA	Dubai Ports World (DPW)	S	UAE	6	1	1	AS	1,100
2007	Ports America (Highstar Capital)	F	USA	Amports Terminal Baltimore	S	USA	6	1	0	AS	430
2007	Ports America (Highstar Capital)	F	USA	Marine Terminals Corporation (MTC)	S	USA	8	1	0	CO	800
2009	Brookfield	F	Canada	Babcock & Brown Infrastructures (B&B)	F	Australia	4	1	1	AS	625
2009	Euroports	S	Luxembourg	Babcock & Brown Infrastructures (B&B)	F	Australia	4	2	2	AS	undisclosed
2009	Nippon Yusen Kaisha (NYK)	H	Japan	Hutchison Port Holdings (HPH)	S	Hong Kong	2	1	0	SH (4.5%)	(equity swap)
2010	JP Morgan	F	USA	Dragados	S	Spain	5	1	1	AS	720

* S = stevedore; C = carrier; H = hybrid; F = financial operator.

** Transaction type: AS = asset acquisition; CO = company/firm acquisition; SH = acquisition of a share in a company.

Source: Authors' own elaboration from Drewry (various years) and corporate websites

Table 2. Space, time and managerial concerns in multiple-site acquisitions: The PSA International case.

	Target	**Sinport**	**Hesse Noord Natie**	**Hong Kong Inter. Terminals (HIT)**	**NWS Holdings**	**Hutchison Port Holdings**
Multiple acquisition: relevant information	Year	*1998*	*2001*	*2005*	*2005*	*2006*
	Contractual arrangement	Shareholding acquisition (60%)	Company acquisition after prior merger between local Belgian stevedores Hessenatie and Noordnatie	Shareholding acquisition (20%)	Assets acquisition	Shareholding acquisition (20%)
	Transaction size (million USD $)	undisclosed	717	925	386	4,400
	International experience	2	5	9	9	10
	Main country/ies targeted	Italy	Belgium	Hong Kong	Hong Kong	Global target
	Cultural distance	High	High	Low	Low	Mixed, depending on the regions
	Relevant context conditions	Problems related to unclear rules on port funding.	Potential violation of EU antitrust rules. Need of competitive response to HPH-ECT deal.	Breaking of entry barriers for penetrating the Hong Kong market, monopolized by incumbent rival firms.	Breaking of entry barriers for penetrating the Hong Kong market, monopolized by incumbent rival firms.	Potential cartel and collusive behaviours. Potential disputes at regional/national level on violation of antitrust rules.
Spatial and temporal dimensions (Pace & Rhythm)	New terminals acquired (No.)	2	5	5	2	38
	Countries entered (No.)	1	1	1	1	18
	New countries entered (No.)	1	1	1	0	14
	New regions entered (No.)	1	1	0	0	5
	Foreign throughput (%)	6.1% → 9.0%	12.1% → 25.5%	30.8% → 33.9%	30.8% → 33.9%	33.9% → 44.5%
	World rank pre/post acquisition	2nd	2nd	2nd	2nd	2nd → 1st
Managerial and organizational concerns	Transaction package problem	Voltri Terminal Europa as jewel in the Sinport crown more other residual unrequested facilities (majority stake in Venice Container Terminal and two other transport and logistics businesses).	Involvement in a large number of container, roro and breakbulk terminals in the ports of Antwerp and Zeebrugge, gradually sold at a less than favourable price a few years later.	Very limited effects as the minority shareholding included no redundant or non-targeted activities	Very limited effects.	Limited effects given the contractual arrangement adopted (minority share at corporate level), and the scarce involvement in operations and day-to-day management.
	Location diversity problem	Difficulty to deal with diverse port backgrounds in Genoa and Venice. The	Strong differences between the governance systems and practices in	Although cultural differences are small the transaction changed the traditional	Adding to changing rivalry between Singapore and Hong Kong	Limited effects given the contractual arrangement adopted (minority share at corporate level), and the

		institutional transformations took place in the two ports following different timeframes and reform logics.	Antwerp and Zeebrugge (organization of the dock labour pools, etc.) driving to restructure the Belgian branch.	rivalry patterns between the hubs Hong Kong and Singapore.		scarce involvement in operations and day-to-day management.
	Irregularity pattern problem	PSA's first step on the European continent also meant the first real experience with a different social, cultural and economic environment requiring managerial adaptations	The large scale entry in Belgium marked the real mental start of PSA's path towards less reliance on Singapore. Given the size of the transaction, some years were required for "digesting" this large investment.	Limited. Only local Hong Kong dimension.	Limited. Only local Hong Kong dimension.	Impacts only felt at a pure strategic and financial level with hardly any implications at the operational and organizational levels

Source: Authors' own elaboration from "PSA International" case study database.

Table 3. Space, time and managerial concerns in multiple-site acquisitions: The Dubai Ports World case.

	Target	**CSX World Terminals**	**P&O Ports**
Multiple acquisition: relevant information	Year	*2004*	*2006*
	Contractual arrangement	Company acquisition	Company acquisition
	Transaction size (million USD $)	1,150	6,800
	International experience	5	7
	Main country/ies targeted	Australia, Dominican Republic, Venezuela, Hong Kong, China, and Russia	Global target (2006) (Forced) withdrawal from the US (2007). Partial divestment in Australian terminals (2010)
	Cultural distance	High	Depending on the regions
	Relevant context conditions	Breaking of entry barriers for penetrating closed markets (e.g. China, Russia, etc.).	Highly hostile institutional conditions in the US market. Severe liquidity challenges after parent holding Dubai World got in financial difficulties (2010)
Spatial and temporal dimensions (Pace & Rhythm)	New terminals acquired (No.)	7	33
	Countries entered (No.)	6	15
	New countries entered (No.)	6	12
	New regions entered (No.)	5	4
	Foreign throughput (%)	6.8% → 20.6%	22.4% → 65.4%
	World rank pre/post acquisition	8th → 5th	5th → 4th
Managerial and organizational concerns	Transaction package problem	Transaction mainly focused on fast global growth in terminal operations by incorporating skilled personnel in DP World. Multiple countries in the transaction seen as an asset towards global network formation, not a transaction package problem.	Same as in the case of CSX World Terminals. Later terminal network adjustments due to political forces (US) or liquidity needs (Australia) can be considered as reverse transaction package problems (disposal/divestment imposed by circumstances not because of redundancy).
	Location diversity problem	Problem confined by keeping local CSX World Terminals staff and management as much as possible on board.	Potentially huge locational diversity problem partly solved by having former P&O Ports managers run most of the global operations and even keeping a lot of the systems and methods in place.
	Irregularity pattern problem	Problem confined by keeping local CSX World Terminals staff and management as much as possible on board.	Keeping existing management of acquired firms helped to channel the highly irregular growth path DP World faced.

Source: Authors' own elaboration from "Dubai Ports World" case study database.

Table 4. Drivers and moderators of managerial and organizational concerns in multiple-site acquisitions: a conceptual framework

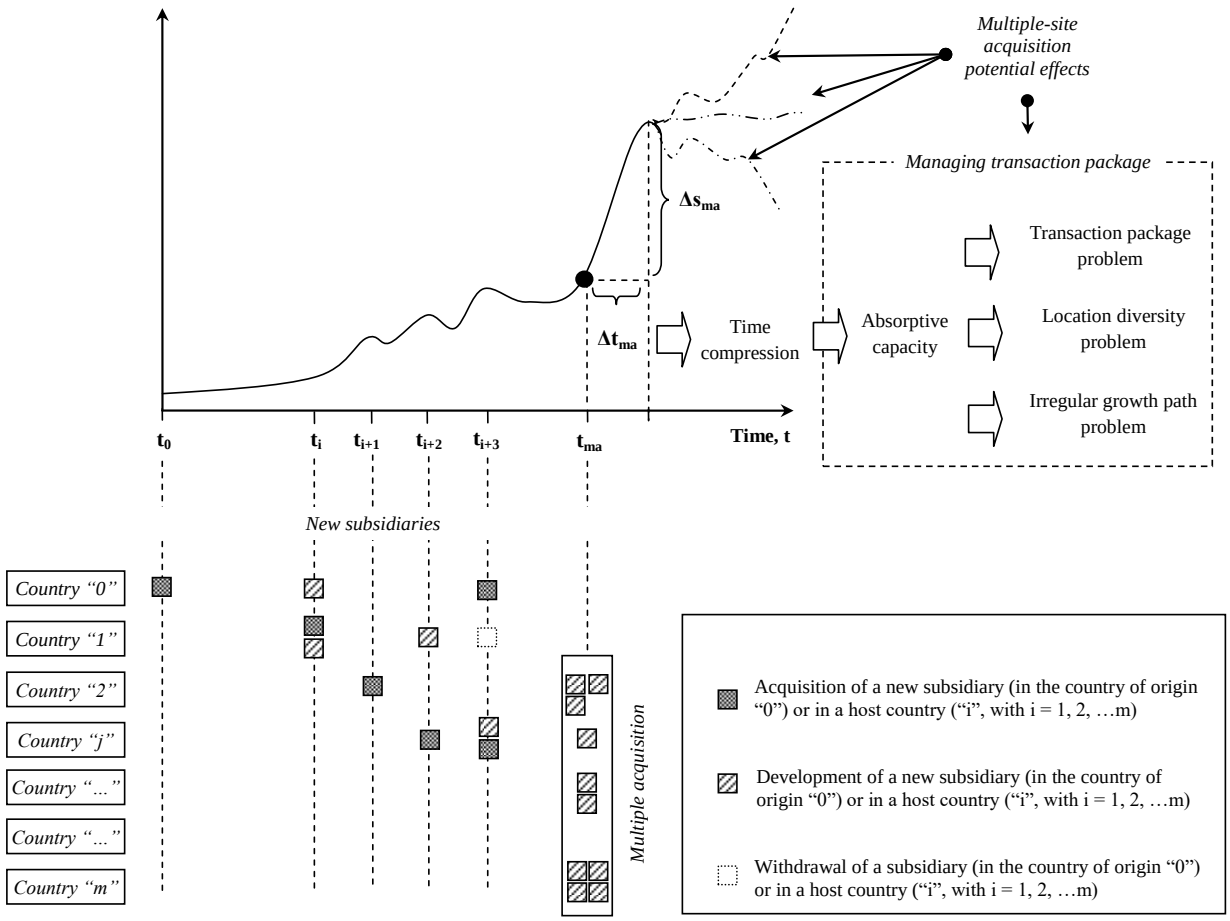
Drivers and Moderators	*Transaction package problem*	*Location diversity problem*	*Irregularity pattern problem*
Transaction size: financial resources committed; number of facilities/countries simultaneously entered, etc.	+++	+++	+++
Cross-cultural complexity: number of new regions and countries entered; cultural distance among home country and host countries; etc.	+	+++	++
Contractual arrangement: contractual solutions limited to the financial involvement, e.g. the private negotiation of blocks of shares (SH), imply a lower managerial and organizational commitment compared to the simultaneous acquisition of diverse assets/facilities (AS) and the take-over of the whole corporation (CO).	--	--	=
International experience and foreign market knowledge: number of countries where the firm operates; foreign market knowledge accumulated during the internationalization process; number of years since the first overseas investment; etc.	-	---	--
M&A previous experience: prior knowledge related to M&A operations that stimulates the selective acquisition of strategic assets, and facilitates the correct handling of the multiple acquisition.	---	-	--
Institutional and regulatory conditions: include host countries dimensions such as political stability, government effectiveness, regulatory quality, rule of law and control of corruption, etc.	++	++	=
Competitive arena: host countries market structure, market openness, hostile reactions by incumbent ITOs, degree of market entry barriers, etc.	+	+	=

(+); (++); (+++) : drivers of managerial and organizational concerns in multiple acquisitions
(-); (--); (---) : moderators of managerial and organizational concerns in multiple acquisitions
(=) : neutral effect

Source: Authors' own elaboration.

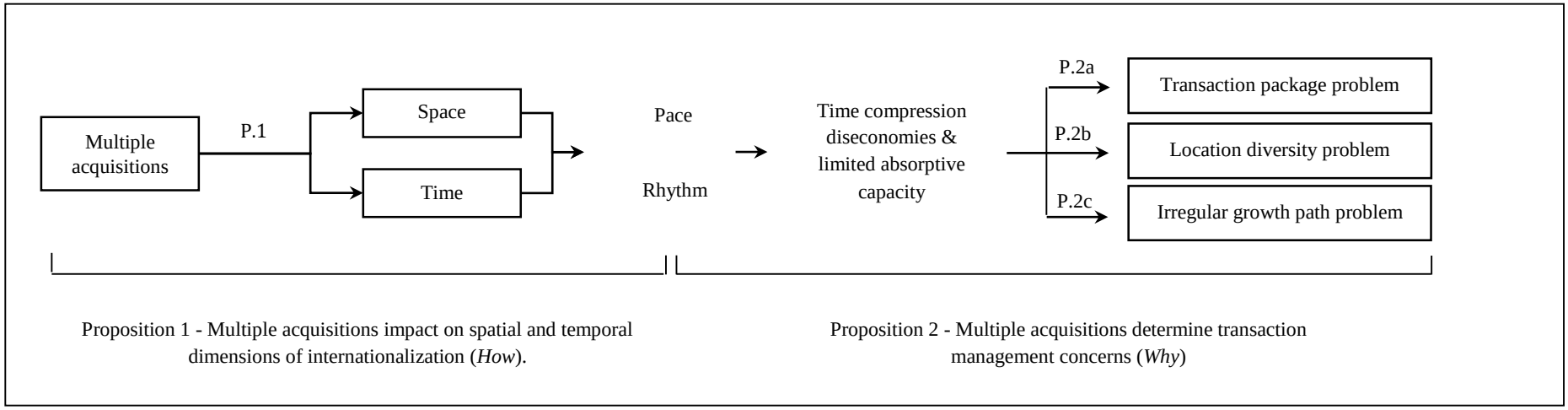
Figures

Figure 1 – Space, time and managerial concerns in multiple acquisitions: a conceptual framework.



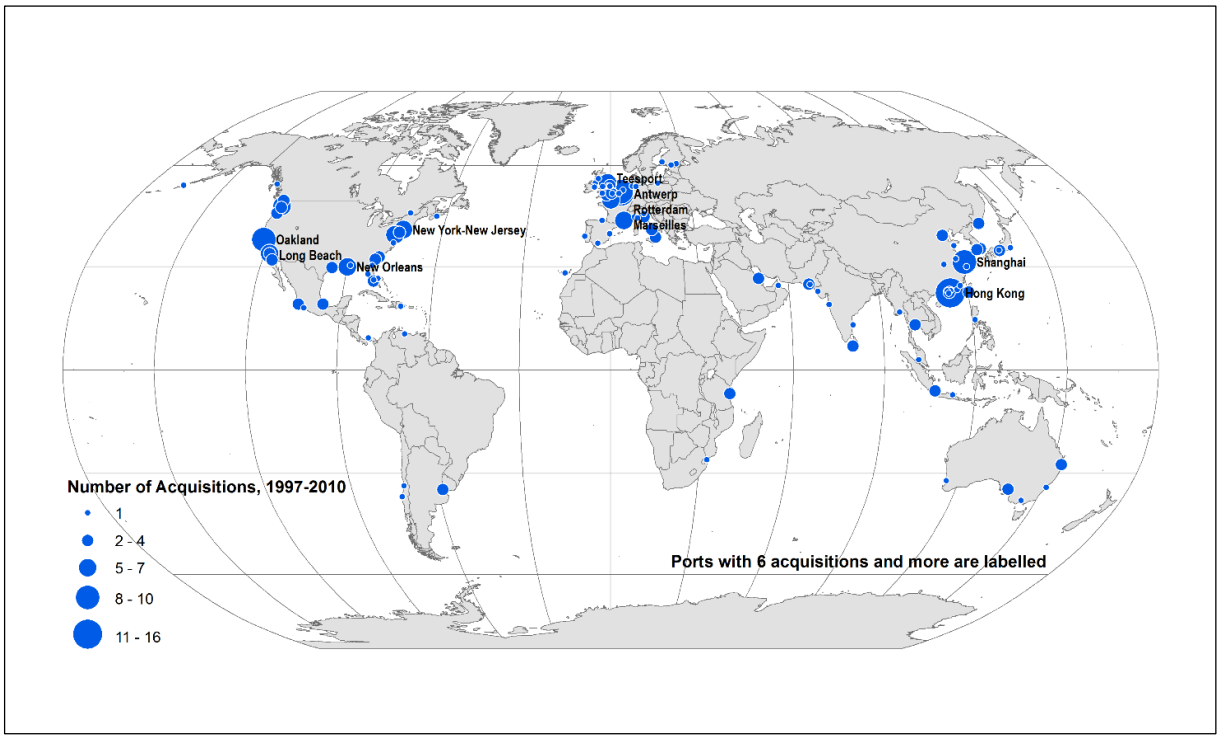
Source: authors' own elaboration

Figure 2 – Research design and propositions development.



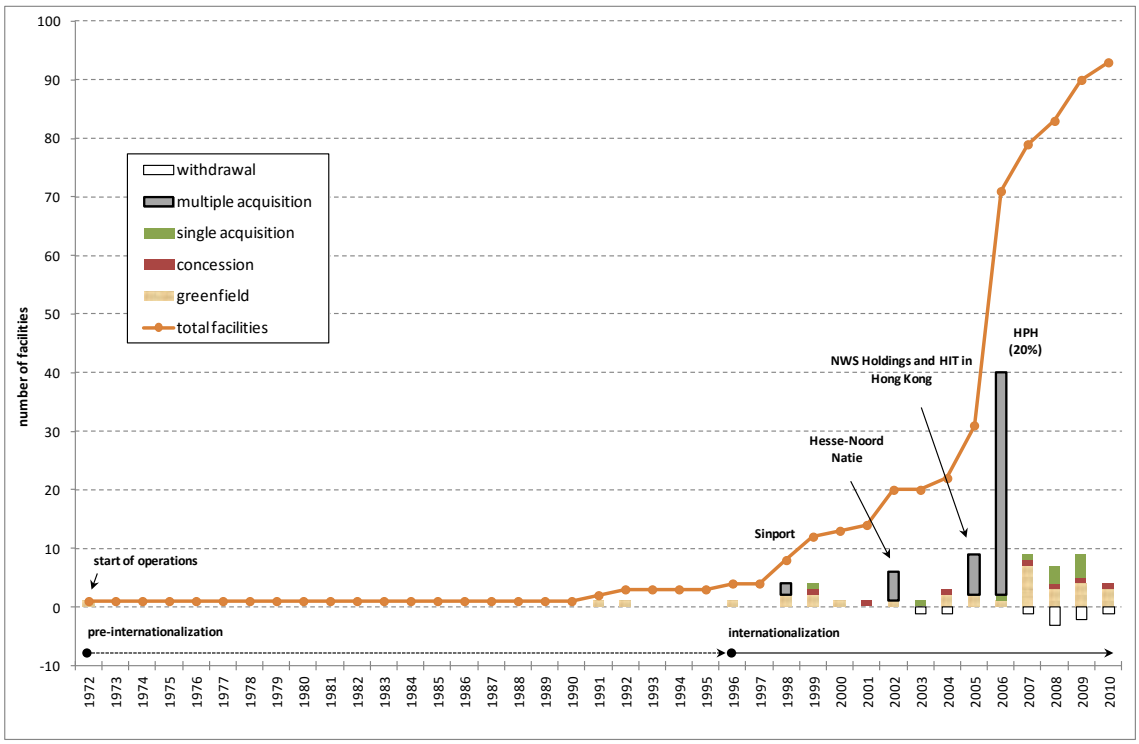
Source: authors' own elaboration.

Figure 3 – Number of terminal acquisitions at the port level, 1997-2010.



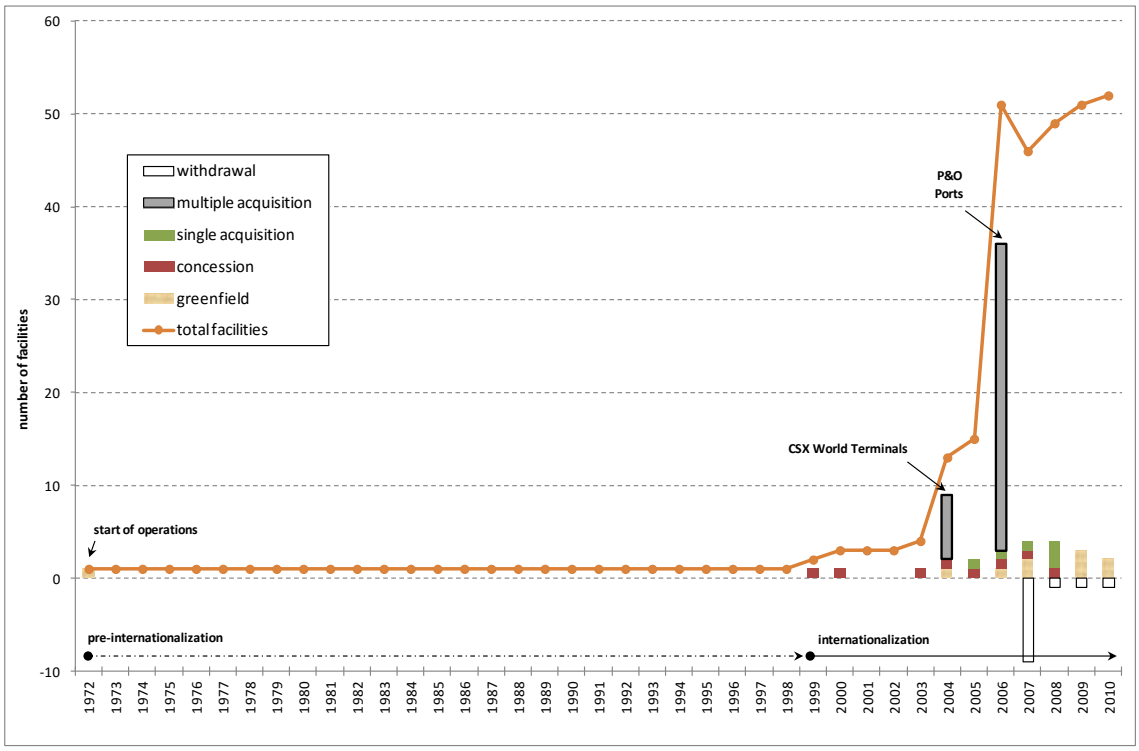
Source: authors' own elaboration from Drewry (various years) and corporate websites.

Figure 4 – Internationalization process, multiple acquisitions and absorptive capacity: the PSA case.



Source: authors' own elaboration

Figure 5 – Internationalization process, multiple acquisitions and absorptive capacity: the DPW case.



Source: authors' own elaboration.