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NEW MARITIME ALLIANCES AND COMPETITION IN A NEW ECONOMIC ENVIRONMENT

ABSTRACT

The recent creation of transport and information networks opens up two new and outstanding options: the interconnection of the economic areas and a new mediation between offer and demand in shipping. In this document the different ways of organization adopted by shipping companies were reviewed; their agreements, alliances, mergers and acquisitions, so as to determine the different levels of hierarchy among them. Secondly, a new port classification was proposed in accordance with the structure and development of shipping companies, together with the degree of port specialization within the framework of the recent spatial integration.

KEY WORDS

maritime container transport; maritime policy; economic environment; port development; inter-modality; container ports;

1. INTRODUCTION: CHANGES IN PORT MODELS

In recent years, and, particularly from 1990 onwards, very deep changes in port activities regarding organisation and behaviour patterns have been witnessed [1]. UNCTAD itself [2] carried out a study on the conceptual models of ports, which was focused on three key criteria: policies, strategies, and operations of port activities; the scope of port activities; and the integration of these activities. This classification gave the chance to establish a three-generation sequence.

The first generation ports, prior to 1960s, operated in an isolated way, by acting as interface between land and sea, and different firms that operated in the port acted independently, without carrying out joint activities for commercial promotion of the port. The second generation ports performed a range of functions and acted as centres of trade, commercial and transport services, “adding value” to cargoes [3]. Then, ports do not act in an isolated way, but in relation with transport industry [4], dealing with complex market structures, where firms and alliances are involved in a changing map of market power positions. The third generation ports took off in 1990s: the globalisation era. They became dynamic nodes in the complex international network of production/distribution [5, 6]. Port management is characterised by the development of integrated transport centres, and by the creation of logistic platforms [7, 8]. Port services have become specialised, more variable and they combine a great deal of services and provisions. They adapt to technological advances and equipment. New industrial areas are created to generate greater yields in cargoes regarding ports, and environmental and security measures are strengthened [9, 10].

This is because, on the one hand, the port reforms, which should re-define the port areas, favour the presence of private companies and concentrate most on the next industrial activities in urban areas [11]; then, the port authorities feel forced to carry out a planned and negotiated action for port uses. On the other

hand, it is necessary to define the port areas: maritime enterprises become a business or logistic bases inside of global supply chains, reinforcing the international competitiveness and stimulating local economies [12]. Thus, there is a prevention of conflicts with the city [13] and the environment [14]. Marseille / Fox; Rotterdam; Le Havre; Genoa; La Spezia, Antwerp; Livorno; or Barcelona are good examples.

Finally, in the third generation ports there is a remarkable improvement regarding administrative efficiency, since they improve and standardise bureaucratic documents.

The greater intensity of economic globalisation make possible that the logistic distribution services of port operations develop in a very remarkable way [7, 15, 16]. There is a change of traditional concepts and functions: ports become “corridors” and “pivots” [17]. With the aim to eliminate the concept of storage and render new services that contribute to “add value to goods” since the cargo transshipment has increased the value of goods, because the port is considered as “a part of the logistic chain” [18, 19]. *Table 1* shows the main trends and key issues for the maritime transport nowadays. The method for conducting this work relies on the revision of the academic literature, the analysis of entrepreneurship agreements and the market structure, together with services provided by ports and the evolution of vessel size and routes.

Summarizing, the present millennium opens new expectations in the sphere of port operations and systems. There have been identified several axes that change the previous performances: the cargo types have changed, due to the increasing specialisation and automation in the load/unload operations in ports, changes in vessel size, and in port infrastructures [20, 6, 17]. Regarding the port ownership, until the early 1980s the port infrastructures were public, with the exception of the United Kingdom. Nowadays the presence of private actors is greater and greater in the ownership of port terminals [21, 22, 23]. In this

context, the vertical agreements are a source of reduction of production cost and a way of increasing efficiency [24]. Finally, there is a change from the segmented transport to an integrated transport. Firms act with greater (both vertical and horizontal) integration, increasing concentration with more complex functions, the relationship port - users increases, which brings about the creation of Maritime Industrial Development Areas (MIDAS) [25, 19, 1, 3].

The issues summarized in *Table 1* are addressed through new scenarios, which take into account the views of different actors, in a context of more competitive and concentrated markets, which are discussed in the following section.

2. VERTICAL RESTRICTIONS, OLIGOPOLIES AND MARKET POWER

The described scenario is becoming more concentrated, both vertically and horizontally, towards a variety of forms of vertical cooperation and integration [27], which is justified by the highest efficiency level achieved by the companies providing services in different levels of the shipping cycle (*Figure 1*), due to specific agreements or joint ventures or mergers. The vertical and the horizontal integration are the two major ways of establishing partnerships. The first one is related to the dynamics of containerization, trying to provide door-to-door, as basis to intermodal services. Thus, the shipping concept is wider and associated with terminal operators, road and rail transportation, etc. The most advanced in this field are the companies Maersk / AP Möller; NOL / APL; NYK. Thus, most terminal operators of large global trade ports are dependent on international groups: Hutchinson Port Holdings; PSA; Dubai Ports; etc., and shipping companies helping to shape a network of port terminals around the globe, as Maersk, for example. Horizontal integration is seeking economies of scale; either through maritime alliances (2M; O-3, G-6; CKYH) between the various

Table 1 – Key aspects and trends in maritime traffic.

Routes and regions	Ports
<ul style="list-style-type: none"> • Concentration of maritime routes in the great central East-West and North-South areas. • Concentration of flows on the long branch routes. • High growth rate of traffic with the East. • Imbalance in flows between regions. 	<ul style="list-style-type: none"> • Development of hub ports at connection points on branch routes and feeder routes. • Evolution from maritime-land interfaces towards logistical platforms and intermodal nodes. • Increase in ferry activity.
Shipowners	Terminal operators
<ul style="list-style-type: none"> • Process of fusions and acquisitions between global operators. • Streamlining traffic for economies of scale. • Using ships with increased capacity. • Local alliances between large and small shipowners for feeder routes. • Vertical alliances with logistic operators 	<ul style="list-style-type: none"> • Growth in the participation of global operators. • Vertical integration of shipowners, terminal operators and logistic operators. • Dominant presence of global operators in Asia, Europe and North America. • The markets in Latin America, Oceania and Africa are developing.

Source: Pérez Fiaño, J.E. [26]

competitors, which become then allies; either through the establishment of partial agreements to be competitive on very specific niche markets (Maersk / Safmarine, HapagLloyd / CP Ships; CGMCMA / Delmas), which could be through mergers and acquisitions [27].

Economic theory justifies this concentration for sake of efficiency, since the elimination of the market in the intermediate processes between some the two phases of the indicated cycle creates, in general, more benefits than disadvantages for both providers and recipients of services [27]. Thus, companies internalize transactions that otherwise would be made on the market, which is reducing cost and time and it benefits all agents, but it generates a higher level of market concentration.

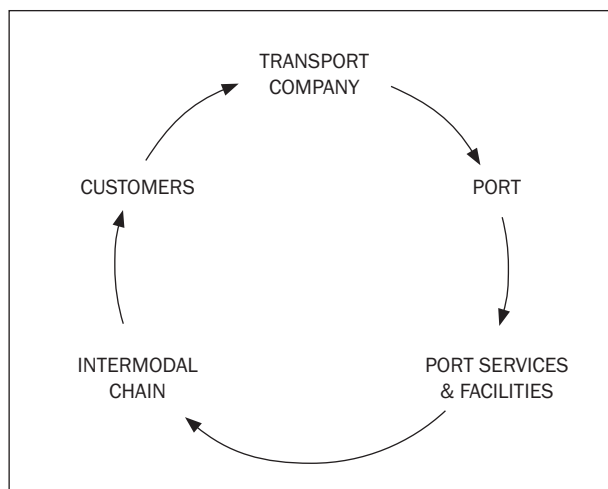


Figure 1 – The maritime transport cycle
Source: Author

Furthermore, the characteristics of each of the different stages are presented in Figure 1. Moreover, sometimes conditions conducive to concentration are generated, i.e. when there are situations close to market structures of natural monopoly, where econo-

mies of scale justify the concentration of demand in the same company (that is the case for some port facilities), on the other hand, larger vessels need larger companies as owners. Thus, the stage is set as an oligopolistic market, where the concentration in larger corporate structures responds to the pursuit of efficiency (these bigger sizes are compatible only with those companies holding large binders or financial resources). The combination of vertical restraints with horizontal mergers of maritime transport companies makes shipping markets turn toward increasingly concentrated markets.

This explains why carrier competition frequently exhibits an oligopolistic nature due to dominant carriers and the merger of the carriers' industry [29], and hierarchical interactions occur between ocean carriers and port terminal operators and between port terminal operators and land carriers, respectively at the upper level interaction port service [30].

Main oligopolistic non-cooperative markets are divided by traditional Microeconomics in quantity and price setting models: the former are usually referred to as Cournot models, and the latter as Bertrand models, both of them being Cournot-Nash models with homogeneous product. Liner operators could initially be thought of as Cournot competitors, because they chose capacity (number of vessels, vessel size) without knowing their competitor's choice and then compete as price setters while capacities become common knowledge [31].

Thus, the pursuit of economic efficiency in terms of vertical restraints and horizontal competition in terms of searching higher returns from companies, inexorably leads to a market with an increasing concentration, which explains the growing tendency for business alliances. The scale and scope effects are instrumental to companies' merger and diversification strategies and they also affect the feasibility of long-term sustainability of the competitive advantage [27]. The main objectives and instruments of maritime agents (shown in Table 2) are not only related to seeking increasing

Table 2 – Objectives and instruments of maritime agents

	Maritime Companies	Terminal Operators	Port Authorities
Objectives	Maximising profits; position on the markets; controlling logistic chains	Maximising profits; customer loyalty and logistic services; and increasing value-added.	Contribution to minimising costs through logistic chains and maximising cargo maintenance
Instruments	Fees; controlling costs in terms of capacity, cargo volume, time, cooperation etc, marketing and services.	Prices; maintenance technology for improving quality, speed, safety, information etc.	Maritime access, territorial regulation and concessions; socio-economic negotiation; pricing policies.
Impacts	Large ships; streamlining sailing networks; alliances and consortiums; and specialised terminals.	Economies of Scale, industrial logistics	Information about maritime access, guarantee of social and economic stability, industrial strategy and concessions policy.

Source: Novo-Corti & González-Laxe [28]

profitability, but also for market efficiency, towards both vertical chains and horizontal agreements. This result is compatible with Sys et al. [32] findings, when they stated that the market structure of container shipping industry does not correspond to a neoclassical monopolist, collusive oligopoly or conjectural-variations short-run oligopoly.

3. SHIPOWNERS' STRATEGIES AND THE ESTABLISHMENT OF COORDINATION NETWORKS

Globalisation has expanded the markets [33]. This situation requires adaptation to new environment through the cooperation of companies, so, the vertical agreements are a good way to increase competitiveness, and those agreements are the first step towards a merger based on vertical integration which could become a higher capacity to constituting alliances and to strengthening the mergers and acquisitions. This process is giving, as a result, an increasing size of firms involved in maritime transport and, at the same time, it is inducing a change in competition bias, by means of a closer position to oligopolistic structures [34], which not only renders firms more efficient but also more profitable. Sys, Meersman, Van De Voorde have proven, operators involved in mergers and acquisitions have higher revenues in later years [32]. The cooperation could be towards a) alliances and creation of maritime groups (Grand Alliance, New World Alliance, the Global Alliance); b) cooperation among companies for scheduling lines of maritime transport; c) establishment of subsidiaries in every company [35]. This process of vertical integration has been continuous and sustainable in the last decade. The combination of this concentration with the conformation of maritime terminals, whose main target lies in making load/unload services faster, so that logistic chains can be developed. The target achieved lead maximising tonnage and value added of carried goods, and, then, maximising the opportunities that services generate in the hinterland.

4. THE CONFORMATION OF THE MARITIME MANAGERIAL ALLIANCES

Frémont & Soppé [36] and Notteboom & Rodrigue [37] showed the strategies carried out by shipping lines, where the final schemes show that the traffic of goods underlines a global system, which is strongly hierarchical and structured by the strategies of shipping lines, with Asia as the main pole of this system. The matching of the economic theory of market structure and concentration, together with the analysis of real situation of ports and maritime operators, and the main shipping lines operating all over the world is the basic method to undertake our research and clarify the

alliances and its reasons. These alliances among companies constitute the determinant role of the structure of the global maritime networks by selecting the ports, concentrating their activities on the East-West routes, and fitting in strategies of adaptation and participation in the globalisation.

Several models explain the dynamism of certain groups and of the strategies of national economic development in some countries. Two initial considerations are quite evident: the Asiatic domain and the European renewal [38]. Regarding the former, different countries adopt diverse options: Japan has an exporting vocation, and the maritime world lies on very old companies (very big and coping with several activities, the major are Nipon Yusen Kaisha (NYK), Mitsui OSK Line (MOL), and Kawasaki Kisen Kaisha (K-Line)), which should intend to acquire medium companies to face up to Chinese competence. Taiwan expanded its business; good examples are some companies, like Evergreen, which acquired some companies, as Lloyd Triestino and Hatsu Marine, or the company Yan-Ming and Wan Hai, which render services intra-Asia and the Pacific, although Wan Hai, on forming an alliance with PIL, has – since 2004 - a line Asia-Europe so as to take advantage of the emerging market. Hong Kong is recognized as the global carrier, there, Orient Overseas Container Lines (OOCL), with Trans-Pacific vocation, is specialised in containerised transport, and stands out from the whole. It has presence also in non-Asiatic markets. South Korea where some private multi-specialised companies are protected by national legislation (Hanjin and Hyundai), Hanjin Shipping is present in shipbuilding, air transport (Korean Air Lines), and it is specialised in containerised, dry and liquid transports; it acquired 80% of the European company Senator Lines. Hyundai is a branch of a broader group, which is present in the automotive industry and shipbuilding. In Singapore, the model of maritime development is the opposite of the Korean model: the market liberalisation prevails, and the State presence is very strong in economy. The influence of the society Port Singapore Authority (PSA) is very big. The maritime company Neptune Orient Lines (NOL), which was created by the State of Singapore in 1968 and privatised at present, was the one that acquired the US America President Line (APL), and in 2004 changed again to public control (Temasek). Another company present in Singapore is Pacific International Lines (PIL) – founded in 1967 -, and with presence in Asia, Africa, Oceania, and the Near East. In Malaysia, the International Shipping Corporation (MISC) is under the control of the national oil group Petronas and by other state participations, which explains its top position regarding liquid transports. On its hand, in Thailand, the Regional Container Line (RCL) concentrates on feeder traffic in Asia. China: the Chinese development only started very recently, following the Japanese example. Likewise, Chinese

companies are multi-specialised. The top company is China Ocean Shipping Company (COSCO), with a good position on the East-West and South-North routes. Another important company is China Shipping, formed by merging several local companies specialised in containers; China Shipping Container Line (CSCL), operates mainly on intra-Asian traffic and on the East-West lines; but the intention is to expand by means of new capital from its new international partners.

Summarizing, the Japanese and Korean companies are placed in different alliances; only the Grand Alliance includes the European companies; Evergreen is the only company that prefers its independence and is not part of any alliance; and Chinese CSCL is also out of alliances, but it has punctual agreements with several companies. This way, it is easy to deduce that the creation of maritime alliances means the formation – by Asiatic companies – of a new method to improve and rationalise the services and port calls in their present state of growth and concentration of traffic on the East-West routes. So, it can be stated that the present network of lines, routes, ports and calls is being dominated by the standardisation of the method that Asiatic companies carry out [36, 39]. The oligopolistic behaviour has an open road. The Stackelberg model could be a good approach to understand those alliances when competition is driven on the Cournot Oligopoly framework: in this situation, the Stackelberg proposal for leadership is a good option for firms trying to get their best position on the market. The case of Maersk Sea Land shows the trend to this path by connecting all the routes, increasing the number of port calls, and offering services worldwide. The Mediterranean Shipping Company (MSC) seems to follow this method, too. Then, these two companies' strategies boost the maritime and surface transport from their major ports. Maersk aims at the global market coverage, and MSC becomes stronger on the complementary markets.

Moreover, the economic crisis forced to reduce costs or/and increase productivity in order to preserve the market share and/or power [40] and the alliances become necessary in order to survive. So, both in 2013 and in 2014; some new maritime partnerships have arisen and they will contribute to shape a new hierarchy and type of organization.

In June 2013, Maersk, MSC and CMA/CGM formulated a business alliance, the P-3 Networks in order to minimize the transaction costs, achieving synergies, sharing strategies and to control market share on major maritime routes. It was approved by the US Federal Maritime Commission (March 24, 2014) as by the European Commission (June 3, 2014), but rejected by the Ministry of Commerce of China (June 23, 2014). In the light of this information, new constituted maritime alliances are as follows: the first group would be the 2-M, formed by Maersk and MSC, which comprises 185

ships with 21 lines globally. The second group, called G-6 Alliance, grouping Hapag-Lloyd, OOCL, NYK, APL, HMM and MOL. And the third alliance, CKYHE, shaped by COSCO, K-Line, Yang Ming, Hanjin and Evergreen. And more recently, in August 2014 the construction of Ocean Three (O-3) conformed by CMA/CGM; CSCL and UASC, which lead to the constitution of the world's fourth largest shipping company. This has happened because they add up 200 ships with a transport volume of 7.5 million TEUs, which would be "a larger and stronger and more flexible company" with significant economies of scale and enhanced competitive position. In this sense, the production sectors have been at the core of the globalization process and have sought to exploit the geographical differences, economies of scale and the possibility of overcoming national constraints [41].

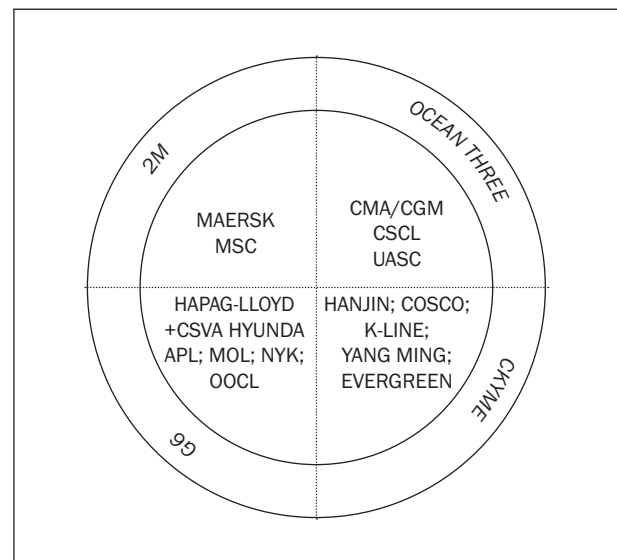


Figure 2 – News Alliances
Source: Authors, from Alphaliner, 2013

Then, with the aim of reducing costs, in short, a broad process of mergers and acquisitions [31, 42, 43] is emerging; with the aim of achieving more efficient operations; increase frequencies; providing more comprehensive services; and, at the same time, offering more attractive prices. These sharing choices displayed clearly in service offerings by companies and they modified the main routes and schedules, depending on the economic attractions and on the logistics operation from the point of view of both ports and country position. Thus, the new criteria for logistics and profitability take precedence over other parameters previously considered as major ones, such as those referring to the technical characteristics of the ports. The joint ventures are a good way to face new transport challenges. As a result, the new international context presents a new connectivity and new maritime port hierarchy; and a scenario where circles

or most dynamic areas live together, along with others of lower intensity is drawn. Hence, the existence of a strong rivalry processes, an intense concentration and of a wide competitiveness can be explained. The new observed alliances are reflected in *Figure 2*.

5. PORT HIERARCHY

This section aims to establish some kind of mechanism that determines the structure of the maritime transport networks and the role that ports have in these networks. A great part of the analysis focuses on the spatial models of transport networks, and, as a consequence, on the shipping lines.

There are different types of ports: the model of Taaffe [44] shows a development process that goes from a structure of small and unconnected ports to a

network that is formed by one or two major ports connected to minor ports that form a system of integrated transport. Hayuth [45], among others, introduces the concept of load centres, and Notteboom [46] develops this concept of load centres, which he associates to several criteria, such as regular ports of call for “round the world” services, movement of large container volumes (more than 4,000 TEUs), high percentage of transshipments, and substantial increase of market shares of a concrete port. According to Notteboom, a load centre has to fulfil at least three of the four criteria. Both O’Kelly & Miller [47] and Notteboom [48] have used the term of “transport hubs” in the sense that hubs are those port areas with huge (sea-sea) transshipment shares, whereas load centres are more related to those ports that have greater hinterland

Table 3 – Evolution of the top 10 global ports – container traffic (TEUs in thousands)

	1970			1980			1990		
	Port	Country	TEUs	Port	Country	TEUs	Port	Country	TEUs
1	N.York /N.Jersey	USA	930	N.York /N.Jersey	EEU	1,947	Singapore	Singapore	5,223
2	Oakland	USA	336	Rotterdam	Netherlands	1,900	Hong Kong	China	5,100
3	Rotterdam	Netherlands	242	Hong Kong	China	1,464	Rotterdam	Netherlands	3,666
4	Seattle	USA	223	Kaohsiung	Taiwan	979	Kaohsiung	Taiwan	3,494
5	Antwerp	Belgium	215	Singapore	Singapore	916	Kobe	Japan	2,595
6	Belfast	U. Kingdom	210	Hamburg	Germany	783	L. Angeles	USA	2,587
7	Bremenhaven	Germany	194	Oakland	USA	782	Busan	South Korea	2,348
8	Los Angeles	USA	165	Seattle	USA	781	Hamburg	Germany	1,968
9	Melbourne	Australia	158	Kobe	Japan	727	N.York /N.Jersey	USA	1,871
10	Tilbury	U. Kingdom	155	Antwerp	Belgium	724	Keelung	Taiwan	1,828
	2000			2006			2012		
	Port	Country	TEUs	Port	Country	TEUs	Port	Country	TEUs
1	Hong Kong	China	18,098	Singapore	Singapore	24,792	Shanghai	China	
2	Singapore	Singapore	17,087	Hong Kong	China	23,320	Singapore	Singapore	
3	Kaohsiung	China	7,426	Shanghai	China	21,710	Hong Kong	China	
4	Busan	South Korea	6,383	Shenzhen	China	18,468	Shenzhen	China	
5	Rotterdam	Netherlands	6,290	Busan	South Korea	12,030	Busan	South Korea	
6	Shanghai	China	5,612	Kaohsiung	Taiwan	9,774	Ningbo	China	
7	Los Angeles	USA	4,879	Rotterdam	Netherlands	9,690	Guangzhou	China	
8	Long Beach	USA	4,601	Dubai	UEA	8,923	Qingdao	China	
9	Hamburg	Germany	4,248	Hamburg	Germany	8,861	Dubai	UEA	
10	Antwerp	Belgium	4,082	Los Angeles	USA	8,469	Tianjin	China	

Source: Authors own, retrieved from UNCTAD

access. Heaver et al. [35] distinguish three types of load centres. The first category includes the major international load centres, great dominators of global transport. The other two categories include medium ports (that are linked to interchanges in regional areas), and minor ports (that only have influence on domestic trade). Thus, we are developing a typology where we can distinguish “global hubs”, “load centres”, “regional ports”, and “secondary ports”; and their classification is in the function of the location of these ports with regard to the main maritime routes.

Port systems organization is into a hierarchy in a very schematic way. For example, the “global hubs” are located close to the main maritime routes and integrated in the networks of international East-West routes, connecting the three most developed global areas in USA-Europe-Asia. They move the greatest volumes and use the biggest vessels. They serve as transshipment (more than 60% of cargo), and to promote the intermodal development by moving the cargoes to about 300 kilometres away of the port, since local cargoes are reduced. The minimum output of a global hub is 600,000 TEUs, the vessels that serve ports exceed 5,000 TEUs, and the frequencies are twice a week. In medium-sized ports, with hinterlands further away from the coast (up to 500 kilometres away from the port), the vessels are used ranging between 2,000 and 4,000 TEUs; the volumes of cargo in these ports amount to 15,000 TEUs; and their service frequency is once a week.

By analysing the international networks of maritime transport and the commercial flows, we can establish a first-level port hierarchy regarding global hubs, load centres, and regional ports. The pre-eminence of the South-Asian locations in global hubs and load centres is remarkable; with Europe as the continent that

presents a structure more concentrated on load centres and secondary ports [48], whereas Asia increases the port network along its coastal perimeter. Since all ports in the same area could not aim to become load centres or hubs as their number is limited [49], the fact of selecting those ports that are included in the transport lines implies the highlighting of a hierarchy over the rest of the ports as regards the commercial flows.

In the past 40 years, the typologies changed for the top ten world ports. There are two interrelated features: on the one hand, the European and American hegemony in the early 1970s has disappeared. Moreover, in 1990 there was only a Chinese port among the top ten in the world, while in 2012 there were 7 Chinese ports among the top 10 in the world. Indeed, in the 1970s five European ports and three US ports were among the top ten in the world, but in 2012 there were no European ports in the top 10 of the world. Port connectivity ratios are closely related to the port hierarchy. The latter is determined by the movement of goods in each port. In 2013, among the top 10 world ports, there were nine Asian ones; and of these, five were Chinese (Shanghai, Shenzhen, Hong Kong, Ningbo and Qingdao). The volumes of container movements of these ports which highlighted above the others, so that the first, Shanghai, triples motion with respect to the tenth place in the world top (Port Klang). The third in the world, the Chinese Shenzhen, almost duplicates the ninth in the world plus the first European port, Rotterdam. Another finding indicates that the addition of the first two Chinese ports, Shanghai and Shenzhen, represent the same traffic operated by the top five North European ports plus the five main European Mediterranean ports. It is a proof of the increasing divergence in regard to growth rates; to the

Table 4 – Main ports in the world, 2013

China		Asia (except China)		North Europe	
Port	TEUs	Port	TEUs	Port	TEUs
Shanghai	33,617,000	Singapore	32,240,000	Rotterdam	11,621,249
Shenzhen	23,278,000	Busan	17,686,000	Hamburg	9,300,000
Hong Kong	22,352,000	Port Klang	10,350,400	Anwertp	8,578,269
Ningbo	17,351,000	Kaohsiung	9,937,718	Bremen	5,809,455
Qingdao	15,520,000	Port Tanjung Pelepas	7,620,000	Felixstowe	3,700,000
Mediterranean		Latin America and Caribbean		USA	
Port	TEUs	Port	TEUs	Port	TEUs
Algeciras	4,336,459	Santos	3,400,00	Los Angeles	7,868,579
Valencia	4,317,157	Balboa	3,063,579	Long Beach	6,730,573
Pireo	3,164,000	Manzanillo	2,025,904	New York/NJ	5,490,000
Gioia Tauro	3,087,000	Cartagena	1,865,233	Savannah	3,033,618
Maarsaxlokk	2,750,000	Callao	1,855,019	Vancouver	2,825,000

Source: Authors own, retrieved from UNCTAD

top levels of attractiveness; with respect to its operation; and its location - close to the places of production or consumption; and at the insertion rates corresponding to the location of the leading maritime services and places of scale. *Table 3* and *Table 4* show the evolution of the top 10 global ports and the situation in 2013, respectively.

The choice of the port calls is directly related to the carriers and markets. The expansion to new markets brings about an unavoidable increase of new ports, and, at the same time, a rationalisation and concentration of traffic. The adjustment that has been carried out regarding port services coincides with the creation of maritime alliances. The need of greater coordination of the resources provides chances to reach new markets, and the strategies of different shipping companies are more and more similar, and port hierarchy is strengthened, diminishing the differences among the first top ports.

Recent studies present two dynamics: one corresponding to the expansion and growth of the number of ports that are part of the services and shipping companies [33], contributing to strengthen the economic development and the economic interrelations between the industrial demands and the services of the respective territorial areas. The other, related to the importance of anticipating the economic trends and situations is a key feature for ports, by establishing in those locations of strong economic potential and in the commercial routes with greater intensity of traffic, searching for scale economies (particularly on organisation, management, technical and human aspects, etc.) and boosting capacity to constitute logistic platforms. Then, the logics of development are according to both these criteria (development itself, and organisation and rationalisation), and the transport flows are organised under the view of a global logistic operator, with a single office; and, according to the second one, the existence of subcontracting is accepted in some operations of the logistic chain. Notteboom & Winkelmanns [49], Notteboom [48], Notteboom & Rodrigue [37] and the reports published by CI-Online, stated that concentration processes are very broad. A European example can be noted: 63% of transports are being operated by seven terminals, and in some cases there is a quasi-monopoly in some ports.

According to all the stated above, attention should be paid to new alliances, as well as the evolution of market structures. Then, our further research will be focused on these issues.

6. CONCLUSIONS

In searching for more competitive and efficient markets, the ports have entered a new supply market and have expanded the "maritime transport" concept, which is now associated with terminal operators, road

and rail transportation, etc. As a result, there is a significant increase of port facilities and services.

Ports are increasing their respective area of influence and strengthening the rivalry among facilities, and this new specialization turns ports into actual distribution centres.

The new scenario allows an increase of the mobility of operators, which can easily change location for their operation bases. In this case, there might arise a problem of port traffic congestion.

The increasing of competitiveness goes together with more concentrated markets, drawing a new port hierarchy, because of oligopolistic competition between more and more concentrated structures.

The alliances in maritime transport are boosted not only for the companies seeking increasing profitability, but also mainly for firms looking for market efficiency, towards both vertical chains and horizontal agreements.

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NUEVAS ALIANZAS MARÍTIMAS Y COMPETENCIA EN UN NUEVO ENTORNO ECONÓMICO

RESUMEN

La reciente creación de nuevas redes de transporte y de la información abren dos nuevas opciones excepcionales: la interconexión de las áreas económicas y una nueva forma de arbitraje entre la oferta y la demanda en el transporte marítimo. En este documento, en primer lugar, se revisan las diferentes formas de organización adoptadas por las empresas de transporte marítimo; sus acuerdos, alianzas, fusiones y adquisiciones, con el fin de determinar los diferentes jerárquicos entre ellas.

En segundo lugar, se propone una nueva clasificación de los puertos, conforme a la nueva estructura desarrollo de las compañías de transporte, junto con el grado de especialización del puerto, dentro del marco de la integración espacial reciente.

PALABRAS CLAVE

transporte marítimo de contenedores; política marítima; entorno económico; desarrollo portuario; inter-modalidad; puertos de contenedores;

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