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A critical evaluation of strategic alliances in liner shipping

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During the last few years, the liner industry has endured a period of radical change, largely due to the formation of the so-called global strategic alliances amongst leading container carriers. However, not even after a full year of operations, a series of cross-alliance mergers and acquisitions has forced three out of the four newly formed alliances to restructure and/or modify their partner base. While this recent development does not put an end to such kind of agreements, as the merged companies are still committed in a second generation of strategic alliances, it highlights the fact that, despite the intentions of their respective partners, such alliances are actually characterized by a high level of instability. This paper, after considering the key profiles of strategic alliances in liner shipping, argues that their current structure may prove inherently inadequate to deliver an acceptable level of stability. The main factors driving such instability can be found in the increased organizational complexity of the alliance as well as in the establishment of a certain degree of intra-alliance competition, whose effects are likely to undermine the level of mutual trust between partner companies. Causes and effects of such factors are investigated and some measures aimed at controlling alliance instability are also suggested.

1. Introduction: along the path of co-operation

Two years ago, the liner industry endured a period of dramatic change induced by the formation of global partnerships amongst the leading container carriers.

The advent of such agreements, dubbed as global strategic alliances, can be considered as a substantial breakthrough in the industry's co-operative practice since, unlike previous partnerships, they are not limited to a single trade lane, but aim to cover every major route as well as a number of relevant north–south trades and regional/feeder links. At the same time, these strategic alliances extend their area of influence well beyond vessel operations towards the shared use of terminals, joint equipment management, inland transport and logistics, joint purchasing and procurement.

Co-operation is certainly not new in liner shipping: even leaving aside a price setting 'co-operation' within conferences, consortia and other forms of co-operation have been the rule, rather than the exception, since the early days of containerization. During the mid-1960s, the transition from conventional shipping to container transport imposed exceptionally high expenditures over shipping companies, which had to invest in entirely new fleets as well as into large equipment pools. Co-operative agreements, therefore, allowed shipping companies to share with

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their partners the burden and the risk of the high capital expenditures required to cope with the impending containerization of trades and to maintain a consistent frequency of service.

The first steps along the path of co-operation were taken in the form of loose operational agreements; depending on the degree of collaboration, these can be classified into five broad groups: space purchase, space exchange, cost pooling, revenue pooling, revenue and marketing pools [1]. The last form was the most integrated of these partnerships; the most well known of these, the ScanDutch group was formally disbanded in 1992, after 21 years of operations. Joint ventures companies, such as OCL, ACT [2] or ACL [3] and revenue pool partnerships, like the now-dismantled ANZECS and ANRO consortia, can be cited as long-standing examples of fruitful and stable co-operation, having served their partners and the industry as a whole for more than 20 years.

However, at the beginning of the 1990s, the unprecedented demands imposed by the globalization of world trade began to make such agreements increasingly inadequate, therefore calling for a new generation of strategic partnerships.

2. The advent of strategic alliances

The factors that drove lines together 30 years ago, namely the need for risk and investment sharing, economies of scales, cost-control, and a capability to increase service frequencies, are as valid as ever, although, today, two new forces calling for closer co-operation have to be taken into account: the globalization of world markets and the protracted poor profitability of most carriers.

Indeed, during the 1990s, the world economy has become globalized in more ways than perceived. The economic system is changing from one with distinct markets, separated by trade barriers, distance, time and culture to one that is increasingly converging and integrating. Two main factors underline this trend towards globalization: the decline in barriers to the free flow of goods, services and capitals and the dramatic development in communications, information and transportation technologies in the last two decades [4]. Globalization does not entail only a dispersal of the production process to various geographic locations to take advantage of differences in cost and quality of productive factors, but also converging consumer tastes and preferences, leading to the emergence of global brands. Globalization is forcing many firms to think of the world as one vast market and competition in many industries is now a global game in which the same competitors confront each other in various nations.

The consequences of such fast-paced changes are to permanently alter the shape of container liner industry, as shipping companies have no choice but to follow their customers on a global scale and to provide viable solutions to their extended requirements [5]. This means a substantial increase in the scope of activities performed by container carriers, in terms of extended geographic coverage, higher frequency of services, faster transit times, advanced IT capabilities, supply chain management and provision of logistics value added services [6].

The second force pushing container carriers towards new forms of co-operation is the protracted unsatisfactory financial performance of the industry as a whole. The demands for the massive investments required by the globalization of trades are unfortunately not met by shipping rates. On the contrary, rates on every major trade route have dropped faster than the gains in productivity. Since 1993, the average index for major trades has fallen by more than 35%; as a consequence, 1996 financial results of the leading carriers showed poor returns on investments, with ROIs unlikely to exceed 7–8% [7]. Needless to say, no investor is satisfied with such results and cost-cutting measures have reached the stage where no further reductions can be made without significantly affecting the quality of services provided. These circumstances have, therefore, prompted the need for a new kind of co-operative agreement, able to guarantee global scale on one hand and better asset utilization on the other.

The answer was to be found during the first half of 1996, with the formation of the so-called global alliances [8]. The new features presented by such kind of partnership in respect with those of the past are indeed manifold.

The most important of them can be summed up in the following points [9]:

- *wider geographical scope*; global alliances enable lines to broaden the range of routes, setting up a world-wide network of services and offering their customers 'one-stop shopping';
- *possibility to perform vessel planning and co-ordination on a global scale*, whereas separate tie-ups on individual routes can lead to unproductive conflicts of interest and sub-optimal fleet deployment;
- *risk and investment sharing*, as the capital investment requirements can be met by the joint financial resources of a wide group of companies;
- *economies of scale*, as larger alliances help to justify investments in the new generation of larger ships and to reach satisfactory utilization rates;
- *entry in new markets*; multi-trade alliances allow a line to enter a trade even without the deployment of additional tonnage, simply by using slots on its partners' existing services;
- *increase in frequency of services*; as global partnerships offer great potential for enhancing overall frequency and allow multiple fixed-day-of-the-week sailings; and
- by *combining purchasing power* and volumes, alliances can drive down the cost per unit of container handling, intermodal and feeder services.

Therefore, 1996 witnessed the formation of four large strategic alliances, whose essential features are described in table 1.

Table 1. 'First' vs. 'second generation' strategic alliances in liner shipping.

First generation Alliance	Global Alliance	Grand Alliance	Maersk/Sealand	Hanjin/Tricon
Partners	APL, Nedlloyd, MOL, OOCL, MISC	Hapag-Loyd, NYK, NOL, P&OCL	Maersk, Sealand	Cho Yang, DSR/Senator, Hanjin
No of ships	65	72	109	72
Capacity (TEUs)	209.645	255.705	281.421	199.404
Second generation Alliance	New World Alliance	Grand Alliance	Maersk/Sealand	United Alliance
Partners	NOL/APL, MOL, HMM	Hapag-Loyd, P&O Nedlloyd, OOCL, MISC	Maersk, Sealand	Cho Yang, DSR/Senator, Hanjin
No of ships	90	93	167	85
Capacity (TEUs)	325.487	350.197	438.089	277.000

3. Assessing the factors driving alliances instability

It is interesting to note that, despite their intended long-term duration, three out of the four major alliances did not survive in their original form in the first year of operations.

Cross-alliance mergers and acquisitions (most notably the P&O-Nedlloyd merger and the APL-NOL and Hanjin-DSR/Senator take-overs) [10] have forced yet another reorganizational round. However, this recent spate of M&A should be considered as the effect, rather than the cause, of the alliances failure. In fact, the slowness showed by the alliances in achieving some remarkable results has induced some of their members to find yet another way to improve their competitive positioning by means of equity ventures, such as mergers or take-overs [11].

While this recent development does not put an end to this kind of agreement, as the merged companies are still committed in a second generation of strategic alliances, it highlights the fact that such alliances are actually characterized by a high level of instability.

The hypothesis which will be elaborated in this paper is that their current structure may prove inherently inadequate to deliver an acceptable level of economic efficiency and stability. The main factors driving such instability can be found in the increased organizational complexity of the alliance as well as in the establishment of a certain degree of intra-alliance competition that is likely to undermine the level of mutual trust between partnering firms. In the following pages causes and effects of such factors are investigated and some measures aiming at controlling alliance instability are also suggested.

In order to be successful, strategic alliances must be able to provide the benefits of mergers and acquisitions without implying the same financial commitment and re-engineering charges. However, costly as they can be, M&A are the straightest way to build a coherent organization, led by a single-minded management. On the contrary, within a strategic alliance, every single partner is willing to retain its role and influence; thus the decision-making process can easily become lengthy and time-consuming, and eventually lead to a heavy bureaucratization of the alliance. Therefore, the key to successful alliance building is to create an alliance that is simple enough to be manageable [12].

But then, what are the factors affecting alliance complexity? According to the most widely accepted findings, alliance complexity can be considered as a function of two different aspects: the complexity of the tasks the alliance is undertaking and the complexity of its organizational structure [13]. It should, therefore, be noted that alliances undertaking complex tasks do not always need to be organizationally complex. This distinction is of some importance, as it allows one to separate task-related factors, which usually fall beyond management's area of intervention, from organizational issues, which can be much more effectively addressed.

The following three are the factors that appear to significantly affect the complexity of the tasks that an alliance sets out to accomplish:

- scope of alliance activities;
- environmental uncertainty surrounding these activities; and
- adequacy of skills and competencies within the alliance.

As outlined in table 2, the tasks undertaken by today's strategic alliances are far more complex than those faced by the old-fashioned consortia. As far as alliance scope is concerned, it should be noted that traditional consortia were very narrow in

Table 2. Factors affecting alliance complexity in liner shipping.

Key factors	1970–1980 consortia	1990–2000 strategic alliances
Alliance	*Narrow*	*Wide*
• Alliance objective	Cost reduction Risk sharing	Cost reduction Risk sharing Coverage extension New market entry Service level improvement
• Number of business functions included in the alliance	Few	Many
• Number of services included	One/Few	Many
• Number of markets/routes be served	One	Many
• Intended duration of alliance	Short to medium	Medium to long
Environmental uncertainty	*Low*	*High*
• Globalization of sector	Low	High
• Speed of change	Low	High
• Changing customer requirements and needs	Low	High
• Maturity of sector	Low	High
• Governmental regulatory action (lifting of anti-trust immunity)	Low	High
Relevant partners' resources and skills	*Adequate*	*Adequate*
Task complexity	*Low*	*High*

scope, being limited to the deep-sea leg of a single trade lane. In sharp contrast, today's strategic alliances are far more complex, as they are multi-trade agreements extended to a wide number of routes and activities, covering feeder services, terminal operations, inland transport, equipment sharing and joint purchasing. They do not only focus on cost reduction, but point also to extend each partner's geographical coverage, allow entry in new markets, and increase service and frequency level [14].

Needless to say, such enlargement in the scope of carriers co-operative ventures demands a substantial increase in the complexity of the task that they are set out to face.

The second relevant factor affecting task complexity is the degree of environmental uncertainty surrounding the activities of the alliance. The current competitive environment is more complex and changes at a faster pace than 10 years ago, due to rapidly changing customer requirements, increasing competition pressures, protracted over-tonnaging and declining rates. The perspective reduction of the anti-trust exemptions so far accorded to the shipping companies by both the US FMC and the EU DG IV should also be taken in account as a matter for further market instability.

Competitive environment-related issues can therefore be considered as a cause of growing task complexity as critical as the widened alliance scope.

Finally, resources, core competencies and familiarity of the partners with the tasks at hand must be considered. The greater the competencies and resources of the partners in relevant areas, the less complex will be the task that they are undertaking.

However, as strategic alliances in liner shipping essentially relate to the joint production of existing and well-known services, the availability of competencies and resources on the part of every partner does not seem to constitute a main cause of concern for the success of the alliance.

As will be discussed below, the key issue does not refer to the adequacy of competencies and resources, but to the alliance ability to deploy such competencies in the most effective way, tapping each partner's potential to the maximum possible extent.

4. The role of organizational complexity

It is important to stress that many of the above listed factors fall beyond the area of intervention of the management of the involved companies: the more successful is the alliance, the higher will be the inclination towards an increase in the number of shared products, markets and resources. Therefore, the establishment of a direct relationship between alliance success and task complexity seems, to a certain extent, quite unavoidable. In such circumstances, management's attention should focus on a careful control of the factors affecting organizational complexity, the most relevant of which are listed below [15]:

- number of partners;
- nature of their role and contribution to the alliance;
- level of mutual trust; and
- task complexity itself.

It goes without saying that the more partners there are in an alliance, the greater is the potential for organizational complexity. This complexity will make itself felt, starting from the board of directors and then down through all the levels of the involved organizations. In such a respect, two-partner agreements, such as the Maersk/Sea-Land alliance, seem to retain a substantial advantage on competing ventures, as far as smoothness and pace of decision-making are concerned.

In contrast, the management of wider agreements, such as the Global or Grand alliances, may become a time-consuming and bureaucratic exercise, since each partner will expect to be involved in all relevant decisions. According to Killing [15], an alliance with more than three partners may be quite unmanageable unless each partner has a well-defined role from the outset, which may include one or more partners agreeing to play a relatively passive role.

This leads to the second key factor driving organizational complexity: the *role of each partner*. In such a respect, it should be noted that equal contributions call for shared decision-making, which, in turn, requires more communication between the partners than would otherwise be the case. This rule fits the case of 'first-round' strategic alliances, in which contributions and roles of every partner were basically equal. However, recent mergers and acquisitions gave a substantial impulse to the shift from shared decision-making to dominant partner-led alliances, as will be discussed below.

The third factor affecting organizational complexity is the level of *mutual trust among partners*. If the partners of an alliance have previously worked together and established a degree of trust or at least a level of 'mutual forbearance', organizational complexity is likely to be less than it otherwise would be. Once again, the Maersk/Sea-Land alliance seems to have the best profile, as the two companies come from a long established co-operation on several routes. In contrast, the New World

Alliance brings together partners with little or no experience at all of previous collaboration.

Finally, the organizational complexity of an alliance is directly linked to the complexity of the tasks that the alliance itself sets out to accomplish; as the factors leading to task complexity have been previously outlined there is no need for further discussions on this point.

The establishment of a certain level *of intra-alliance competition* has been outlined as the second key force driving alliance instability. In fact, one notable feature of current strategic alliances is that each partner retains strict control over its own marketing and sales activities. This choice, on one hand allows each company to keep its marketing autonomy and commercial identity, benefiting from the advantages made possible by the joint operations; however, on the other hand, it can create the scope for substantial competition between partners and adversely affect the level of mutual trust within the alliance.

The relevance of the issues raised by the strategic alliances is, albeit indirectly, confirmed by the reluctance of some major carriers to enter into such agreements. First-class companies like Evergreen or MSC are still committed independent operators, their co-operative ventures being strictly limited to minor slot sharings.

In such a respect, it is very interesting to observe that the two carriers have always enjoyed a much stronger growth than the industry average; while this cannot lead to the conclusion that strategic alliances are necessarily ineffective, it certainly demonstrates that opting for the 'go-it-alone' approach can make much more sense than joining a poorly designed alliance just for the sake of conforming to the prevailing market trend [16].

5. Building stable alliances

In the previous paragraphs, it has been shown that, while some of the factors driving alliance complexity fall beyond the area of intervention of alliances management, some others can be effectively controlled. According to this analysis, managers of partnering firms can achieve a satisfactory level of stability and efficiency by focusing on one or more of the three following measures:

- reduction in the number of partners;
- differentiation in their roles and contributions; and
- co-ordination of sales and marketing activities.

With reference to the first two actions, it has been shown that the current structure of most strategic alliances involves shared decision-making, which is cause for increased organizational complexity. In such a respect, a shift towards *split control* or *dominant partner* alliances could considerably reduce the organizational complexity of the venture (figure 1). This can be achieved, in first instance, by reducing the number of partners.

In fact, empirical evidence has shown that the number of partners is the main force driving alliance complexity, as a wide member base constitutes a substantial obstacle for the rationalization and integration of the partners' respective activities, implying lenghty decision-making even for the settlement of day-to-day issues.

It should be noted that, so far, the only alliance able to retain its original shape is the Maersk/Sea-Land agreement. Indeed, its true competitive advantage lies on the fact that it can reach the same scale of competing agreements by putting together only two partners.

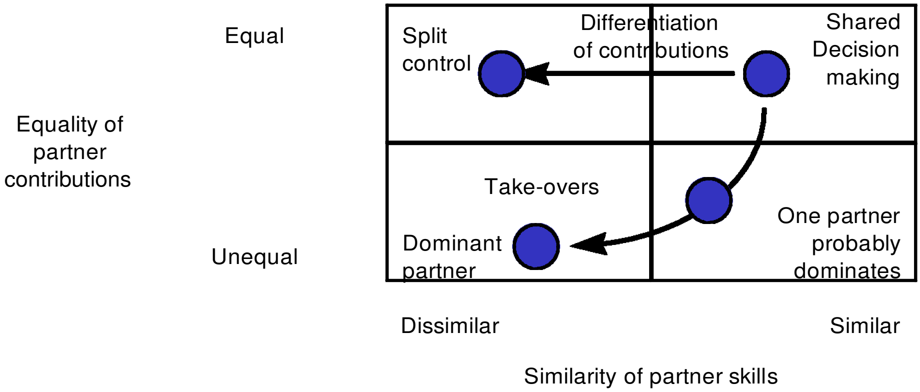

Figure 1. Decision-making rules within strategic alliances.

The recent spate of mergers seems to lead the way towards a new kind of alliance, which will be composed of a limited (two to three) number of partners of very large and similar dimensions (as Maersk and SeaLand) or, while retaining a wide member base, will be led by a dominant partner. Within the new Grand Alliance, the role and weight of P&O Nedlloyd and that of NYK are likely to be much more meaningful than that of the smaller partners. The same situation applies for the New World Alliance, where NOL/APL is now the major contributor in terms of shared tonnage and, especially, for the United Alliance, in which Hanjin Shipping, after the acquisition of DSR/Senator, is by far the dominant partner [17].

The differentiation of the roles and contributions of each partner have been outlined as a second possible step towards simpler and more stable alliances. As previously demonstrated, similar contributions lead to the need for shared decision-making. In such respect, it should be noted that successful alliances cannot be set up by just putting together the assets and the resources of each member; instead, they are built upon the core competencies of each partner.

Only in this way, the alliance as a whole can deliver a value which is greater than the sheer sum of its parts. Each partner may have a comparative strength within one or more key fields of activity, which could be effectively deployed to the alliance's advantage. The differentiation of the contributions of each member, based upon their respective core competencies, could deliver interesting results. In fact, the organizational structure of present alliances implies that every partner has to play a role (albeit in some cases a small one), in performing every function. Indeed, a specialization of the responsibilities of the partners could be a much more sensible way to run the alliance. The benefits of such an approach are quite evident:

- it can improve the competitive positioning of the alliance, deploying jointly the untapped potential of every member; and
- it can contribute to reduce alliance complexity. The specialization of roles and contributions means that each partner will be able to take relevant decisions within its area of responsibility, without prior consultation with the others (split control instead of shared decision-making).

The differentiation of the contributions of each partner is not an easy task. The deep-sea leg offers little room in order to find a way to differentiate the role of one member from the others. However, as alliance integration makes more inroads towards joint inland operations, it becomes possible to find more creative ways to modify and enrich the respective contribution [18]. Capitalizing on the tangible and intangible assets retained by each partner in its domestic market could be one method. Nation- or region-specific competencies can easily become a key asset and a source of substantial competitive advantage for the entire alliance.

It should be stressed that, in order to achieve such differentiation and shift towards a split control of the alliance, a high level of trust amongst partners needs to be firmly established. This leads to the third of the outlined measures, the co-ordination of sales and marketing activities, which should lessen the negative effects of competition among partners. In such a respect, a regional approach, as already experimented by past consortia, could be but one possible solution. Alliance-wide adoption of new pricing criteria, better market segmentation and more sophisticated marketing methods could help alliances to reach substantial results also on the revenue side [19].

6. Conclusions

The hypothesis drawn in this paper is that the current structure of strategic alliances in liner shipping is inherently inadequate to deliver the expected results which, in turn, greatly undermines their stability. This is largely due both to their increased complexity and to the presence of a degree of intra-alliance competition among partners. Measures directed to control such issues should, therefore, be evaluated and adopted.

In such a respect, the reduction of the number of partners, the differentiation of their roles and the co-ordination of marketing and sales can achieve meaningful results. The recent M&A activity conforms to this framework, since it can be explained—*inter alia*—as the carriers efforts to build a new generation of strategic alliances, either composed of fewer members or led by a dominant partner. However, despite the recent reorganization, many agreements still have a long way to go in order to find the long sought-after stability, as they still retain a wide member basis and, most significantly, separate marketing and sales organizations and identical roles and contributions on the part of each partner.

A period of further market instability can, therefore, be reasonably foreseen, with more mergers and take-overs to come, until a third generation of more efficient and stable alliances will be built.

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