

# An Empirical Analysis of Successful Alliance Management in Liner Shipping

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## 정기선해운의 성공적인 제휴관리에 관한 실증연구

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**Abstract** : The question of how to make strategic alliances work successfully is becoming increasingly important as more and more firms regard cooperative relationships as a means of improving their competitive position. The objectives of this research are to determine whether certain liner shipping alliance forms are more successful than others, whether the relative importance of reasons for successful liner shipping alliance varies with the different reasons, and whether the relative importance of reasons for alliance success varies with the form of liner shipping alliances. The research findings have shown that the majority of liner shipping alliance forms, utilised by respondents in this survey, experienced a relatively high level of success. However, success was shown to be dependent upon a variety of factors and the reasons for successful alliance varied with the form of alliances.

**Key words** : Liner shipping, Liner shipping alliance, Alliance management, Cooperation, Alliance success

**요 약** : 전략적 제휴는 기업의 경쟁우위를 확보하기 위한 중요한 경영전략으로 이용되며, 많은 기업들이 경쟁기업과 다양한 형태의 제휴를 맺고 있다. 본 연구에서는 정기선해운에서 제휴유형간의 만족도에 차이가 있는지, 제휴유형별 성공요인의 중요도에 차이가 있는지, 제휴 유형간 성공요인의 중요도에 차이가 있는지 등에 대하여 실증분석을 하였다. 연구의 결과 정기선사들은 제휴의 성과에 대하여 대체로 만족하고 있으며, 제휴의 성공여부는 다양한 요인에 의하여 결정되며, 제휴의 유형에 따라 성공요인의 중요도에 차이가 있는 것으로 나타났다.

**핵심용어** : 정기선해운, 정기선해운 제휴, 제휴관리, 협력, 성공적인 제휴

## 1. INTRODUCTION

The question of how to make strategic alliances work successfully is becoming increasingly important as more and more firms regard cooperative relationships as a means of improving their competitive position. However, it is argued that because of implementation problems associated with different management styles, cultures, operational practices and degree of control, many firms are not satisfied with the results of their alliances. In fact, some researchers believe the failure rate of alliances to be as high as 50 per cent or more. Indeed, it has been argued that strategic alliances have a greater chance of failure than success. Therefore, awareness of successful alliance management has increased dramatically among alliance

researchers and practitioners. And a variety of reasons have been identified which contribute to success/failure of alliances.

However, although in the liner shipping industry many liner shipping companies are involved in various forms of alliances such as slot charters, joint services, consortia, joint ventures, pooling agreements, conferences, stabilisation agreements, global alliances, and M&A, there are very few research on the successful alliance management in liner shipping. A better understanding of the factors contributing to alliance success enhances the ability of liner shipping firms to implement and manage successful strategic partnerships.

This paper attempts to determine whether certain liner shipping alliance forms are more successful than others, whether the relative importance of reasons for successful liner shipping alliances varies with the different reasons, and whether the relative importance of reasons for alliance success varies with the form of liner shipping alliances.

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## 2. LITERATURE REVIEW

The alliance literature has indicated that alliance success is the result of a variety of reasons, some of which are more important than others (Stiles, 1994). Drawing on the literature review, Table 1 summarises the main reasons identified for successful alliances. It is worth examining the main reasons for successful alliances among others on which this research is based.

For alliances to be successful, the mutual agreement on co-operation objectives must be made between the parties (Porter and Fuller, 1986; Devlin and Bleackley, 1988; Stafford, 1994; Das and Teng, 1997). Das and Teng (1997) stressed that the partners must have compatible objectives in the alliance in order that the alliance is beneficial to both partners. Some firms enter into strategic alliances to capture secretly the know-how of their partner. In this case, the alliance becomes a cover for the hidden agenda and the firm has no real interest in sustaining the alliance. Obviously, incompatible objectives of the partners will tend to bring the alliance down in short order.

The importance of choosing the right alliance partner is also stressed by a variety of authors (Porter and Fuller, 1986; Devlin and Bleackley, 1988; Bronder and Pritzi, 1992; and Stafford, 1994). It is argued that finding the right partner is one of the most important success factors of a strategic alliance. It is emphasised that careful identification of alliance partners is the single most important issue in establishing a successful alliance. Prospective partners must be carefully assessed both in terms of their contribution to the success of the alliance and the risks of forming links with them. Partners must possess the scale, technology, market access, or other contribution that the other alliance partner seeks (Porter and Fuller, 1996).

Among other success factors, flexibility of co-operation serves as a key factor for alliance success (Das and Teng, 1997). With strategic alliances, the partners may be involved in a project partly, without contributing any or all the needed capital, technology, and human resources. Since the risks are shared by the partners, sunk costs of the project are reduced.

As a result, it becomes easier for the partners to exit from the alliance, if things do not work out as expected. In particular, if the partners are involved in non-equity alliances, they can relatively easily terminate the alliance, primarily because of their common attribute: an absence of shared equity ownership.

It was argued that for a successful alliance there must

be a continual commitment, CEO direction and involvement throughout the alliance. Devlin and Bleackley (1988) indicated that Commitment must involve monetary, technological, manpower and facilities allocation. Top-level involvement, guidance, direction, and vision can mean the difference between success and failure of alliances.

Table 1 Main Reasons for Successful Alliances

Author	Reasons for Successful Alliances
Doz(1986)	<ul style="list-style-type: none"> <li>- Continual mutual commitment of resources</li> <li>- Good interpersonal relations between partners</li> </ul>
Porter and Fuller (1986)	<ul style="list-style-type: none"> <li>- Complementary contribution from partners</li> <li>- Organisational compatibility</li> <li>- Partner compatibility</li> <li>- Mutual agreement on co-operation objectives</li> </ul>
Devlin and Bleackley(1988)	<ul style="list-style-type: none"> <li>- Partner compatibility</li> <li>- Mutual agreement on co-operation objectives</li> <li>- Bring sufficient resources to the alliance</li> <li>- Continuous senior management direction and involvement</li> <li>- Monitoring the alliance</li> </ul>
Bronder and Pritzi(1992)	<ul style="list-style-type: none"> <li>- Fundamental, Strategic, and Cultural fit</li> <li>- Clearly defined contract negotiation objectives</li> <li>- Compatible decision-making processes</li> <li>- Learning, adaptation and review</li> </ul>
Stafford(1994)	<ul style="list-style-type: none"> <li>- Partner compatibility</li> <li>- Cultural compatibility</li> <li>- Mutual agreement on co-operation objectives</li> <li>- Continual mutual commitment of resources</li> <li>- Active communication network between partners</li> </ul>
Stiles(1994)	<ul style="list-style-type: none"> <li>- Organisational compatibility</li> <li>- Cultural compatibility</li> <li>- Trust between partners</li> <li>- Sound alliance planning</li> <li>- Commitment from top management from the start</li> </ul>
Das and Teng(1997)	<ul style="list-style-type: none"> <li>- Compatible objectives in the alliance</li> <li>- Complementary resources and skills</li> <li>- Interfirm trust</li> <li>- Cultural compatibility</li> <li>- Flexibility of co-operation</li> <li>- Good interpersonal relations between partners</li> <li>- Creating a high level of alliance in operational areas</li> <li>- Good understanding by both parties of competition and marketplace</li> </ul>

In addition, Bronder and Pritzi (1992) stress that compatible decision-making processes must be in place for partnerships to run effectively. In fact, the development of compatible decision-making helps to put the alliance on the road to success. Important decisions arise during the entire lifetime of an alliance. Therefore, a fair, flexible, and participatory decision-making mechanism must exist.

If co-operation goals are compatible and the alliance seems feasible, an active communication network should be established among key personnel across partners in the functions affiliated with the alliance so that it can be tapped into in order to monitor, reinforce, or modify understanding of each partner's objectives. Sometimes, it is helpful to share integrated computer systems in order to communicate efficiently between the partners(Stafford, 1994).

In the meantime, implementation of the alliance occurs at lower levels, and often some forms of incentives must be built into the alliance for parties to cooperate. That is, ways must be developed to motivate lower level employees. To facilitate co-operation, the right leadership is of paramount importance. In addition, implementation is more readily facilitated if good interpersonal relations exist between both parties(Doz, 1986).

Stafford(1994) notes that commitment of resources such as finance, facilities, capabilities, and know-how within the partnership is also critical for alliances to be succeed. Prospective partners must be open about what resources they seek in a partner as well as what resources they can contribute to achieve the alliances objectives. Ideally, the contributed resources should reflect an approximately equal level of dependence between partners to ensure that each partner keeps a similar interest in the alliance. Should one partner be more dependent on the relationship resources, it may become a burden to the other, igniting instability of commitment and power within the relationship.

Das and Teng(1997) argue that the parties to an alliance must each acquire, share, and mutually analyse the same detailed knowledge about the competition, the marketplace, and the regulatory hurdles. Facts alone are insufficient. A synthesis of the facts together with an adequate due diligence process is required.

Stafford(1994) points out that managers need to identify key differences in corporate culture between partner companies and to be proactive in cultivating new blended cultures within alliances for partnership success. Corporate culture is the set of values that establishes employee norms and expectations. When partners lack compatible cultures and values, expectations and trust between partner employees may lead to interpartner employee conflict. Corporate culture often proves an elusive phenomenon for managers to deal with, therefore, corporate culture must be carefully considered when assessing prospective alliance partners as many problems within alliances can be attributed to cultural incompatibility. Porter and Fuller(1986) also stress that a partner's organisational style and norms

must be similar enough to allow ongoing collaboration. This makes the partner's motivations both more compatible and more understandable to the other.

### 3. RESEARCH HYPOTHESES

Based on the literature related to strategic alliance management, this section is concerned with the research hypotheses on which this research is based. Because the alliance types vary greatly, it has been argued that certain alliances will be more successful than others(Forrest, 1989). It is important to identify which alliances in liner shipping have a better chance of success. In that context, we can formulate the first hypothesis:

*Hypothesis I: Certain liner shipping alliance forms are more successful than others.*

The alliance literature has indicated that alliance success or failure is the result of a variety of reasons, some of which are more important than others (Stiles, 1994). This leads us to formulate the second hypothesis:

*Hypothesis II: The relative importance of reasons for liner alliance success varies with the different reason.*

It has been argued in the alliance management literature that the reasons for alliance success may vary with the alliance form(Forrest, 1989), which consequently leads to the third hypothesis:

*Hypothesis III: The relative importance of reasons for liner alliance success varies with the form of liner shipping alliance.*

### 4. RESEARCH METHODOLOGY

The research involves a sample of Korean liner shipping companies. Data relating to the research objective was collected via a postal questionnaire. An important aspect of methodology is the sample design. Sampling procedures can be categorised into two broad types: probability derived through random selection and non-probability based on personal judgment. Non-probability samples are particularly effective when certain explicit criteria are necessary in a sample(Churchill, 1991).

The focus of this research on alliances between container liner shipping firms required that sample companies should

have some form of alliances. The selected firms were chosen because the research could draw upon their experiences resulting from their alliance involvement. The presence of this requirement, therefore, made non-probability sampling the most appropriate sampling technique for this research.

Liner shipping companies were identified from the co-operation database created on the basis of data in the *Containerisation International Yearbook*, the leading publication in the container shipping industry which includes data on co-operation agreements from which their forms may be deducted. Alliance forms contained in the *Containerisation International Yearbook* are slot charters, joint services, joint ventures, consortia, global alliances, merger and acquisition. However, additional information regarding Korean liner shipping companies which were involved in pooling agreements, conferences and stabilisation agreements was needed. Of a total of fifteen Korean liner shipping companies, fourteen were identified suitable for the postal questionnaire survey.

Respondents were asked to rate the results of their co-operation on a scale from 1 to 5 in terms of achieving the objectives of the particular form of strategic co-operation in which they had been involved. They were also asked to identify the reasons for the success of the particular form of co-operation on a scale from 1 to 3. Twelve reasons were listed; these had been identified as important reasons from the literature on alliance management.

Three copies of the questionnaire were sent to each company in the sample seeking to obtain information from more than one company executive. As the research objective was to investigate successful alliance management, it was vital to have responses from several members of staff in each company who involved in alliance activities rather than just one response from each company in the sample. The use of multiple respondents at multiple organisational levels was intended to provide greater reliability and validity of data (Ryoo, 1999).

The questionnaire data were analysed using the Statistical Package for the Social Sciences (SPSS) 6.1. Given the small sample size the best tests for this type of data are non-parametric tests which make no assumptions concerning the population parameters, or the shape of the distribution (Hopkins et al., 1996). Such tests require limited distribution assumptions about the data and are useful for categorical, ordinal, interval, or ratio data (Bryman and Cramer, 1997). The data obtained were analysed in terms of

frequency distributions, sample means and standard deviations.

## 5. DATA ANALYSIS

### 5.1 Testing Hypothesis I

To determine the levels of success of alliance involvement respondents were asked to rate the results of their alliance in terms of achieving the objectives of the particular form of strategic alliances in which they had been involved. The findings are shown in Table 2 which shows the mean and standard deviations of levels of success. These findings indicated that a high level of alliance success was perceived by the respondents.

However, as can be seen in Table 2, there is a degree of variation in the ranked order of alliance forms according to their mean measures. By far the most successful alliance form, ranked with the highest mean measure, was slot charters, followed by joint services and global alliances. These findings show that there is strong support for hypothesis I. So, it can be concluded that although there are various types of alliance, certain alliance forms prove more successful than others. This study indicates that slot charter agreements are regarded as having a greater chance of success than others.

### 5.2 Testing Hypothesis II

In order to examine the important reasons for alliance success, respondents were asked to identify the reasons for success of specific types of alliance their company had been involved in. The findings are shown in Table 3. According to the results, two reasons became identified as the highest ranked reasons for successful conferences with the same mean values and standard deviations. These are compatible decision-making processes and continuous CEO direction and involvement.

It is identified that the relatively important reasons for the success of stabilisation agreements are in order of good understanding by all parties of competition and marketplace, open communication between the parties involved, compatible decision-making processes, continuous CEO direction and involvement, and mutual agreement on co-operation objectives.

In terms of global alliances, by far the most important reason for the success is continual mutual commitment of facilities (ships, equipment), followed by mutual agreement on co-operation objectives, good understanding by all

Table 2 Levels of Success of Liner Shipping Alliance

Types of Co-operation	N	Very Limited Results			Very Satisfactory		M	SD
		1	2	3	4	5		
Slot Charters	35	--	--	2	19	14	4.34	.59
Joint Services	24	--	--	2	14	8	4.25	.61
Global Alliances	9	--	--	3	3	3	4.00	.87
Joint Ventures	6	--	--	3	3	--	3.50	.55
Consortia	13	--	1	6	6	--	3.38	.65
Pooling Agreements	19	--	2	13	4	--	3.11	.57
Mergers & Acquisitions	3	--	--	3	--	--	3.00	.00
Conferences	19	--	2	15	2	--	3.00	.47
Stabilisation Agreements	8	--	1	7	--	--	2.88	.35

Note: 1. Respondents ranked co-operation on a 5-point Likert scale from 1 (very limited results) to 5 (very satisfactory).  
 2. M=Mean, SD=Standard Deviation.

parties of competition and market place, and continual mutual commitment of finance. Of least importance is cultural compatibility.

As can be seen in Table 3, the most important reason identified by the sample companies for successful consortia was mutual agreement on co-operation objectives. The second, equally most important factors for successful consortia are partner compatibility and continual mutual commitment of facilities(ships, equipment) and finance. Emphasis on the continual mutual commitment of resources ensures that the intended creative synergy sought by combining partner firms is not an illusion. It is apparent that the benefits of co-operation come mostly from pooling various resources possessed by the partners. Thus, identifying alliance partners having compatible capabilities is the single most important issue in establishing successful consortia. The factor, flexibility of co-operation was found to be relatively less important for the success of a liner

consortium. This finding was in line with the argument that a consortium is a less flexible form of co-operation and slow to respond to the rapidly changing needs of the marketplace(Thanopoulou et al., 1999).

By far the most important reason for successful joint services was mutual agreement on co-operation objectives, followed by partner compatibility, and continual mutual commitment of facilities(ships, equipment). These results showed that sample companies had similar views regarding the reasons for successful consortia and joint services. However, it is interesting to note that while continual mutual commitment of finance was ranked the second most important reason for successful consortia, it was ranked the least important reason for successful joint services.

There was a degree of variation in the ranked order of the importance of the reasons for successful joint venture.

Table 3: Reasons for Successful Liner Shipping Alliance

Reasons for Successful Liner Shipping Alliance	Freight Rate Co-operation				operational Co-operation													
	CONF		SA		ALL		CONS		JSA		JV		PA		SC		MA	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
1.Mutual agreement on co-operation objectives	2.36	.50	2.33	.50	2.44	.53	2.54	.66	2.55	.74	2.33	.52	2.56	.62	1.39	.50	2.33	.58
2.Partner compatibility	1.07	.27	1.33	.50	2.00	.87	2.31	.63	2.50	.51	2.17	.41	2.22	.65	2.43	.50	2.33	.58
3.Flexibility of co-operation	1.21	.43	1.44	.53	2.22	.44	1.31	.48	2.18	.85	2.00	.00	2.11	.47	2.71	.46	1.00	.00
4.Continuous CEO direction & involvement	2.79	.43	2.56	.53	2.11	.93	2.00	.91	2.36	.73	2.33	.52	2.22	.73	1.79	.42	2.00	.00
5.Compatible decision-making processes	2.79	.43	2.56	.53	2.22	.97	1.69	.75	2.27	.77	2.50	.55	2.28	.75	1.21	.42	1.00	.00
6.Open communication between the parties involved	2.64	.50	2.67	.50	2.11	.93	1.92	.76	2.27	.77	2.50	.55	2.22	.73	2.39	.69	1.00	.00
7.Good interpersonal relations between partners	1.21	.43	1.33	.50	2.22	.67	1.85	.80	2.00	.69	2.33	.52	2.00	.69	2.18	.55	2.00	.00
8.Continual mutual commitment of finance	1.00	.00	1.22	.44	2.33	.50	2.31	.95	1.59	.80	2.83	.41	1.94	.73	1.14	.36	1.00	.00
9.Continual mutual commitment of facilities (ships, equipment)	1.14	.36	1.22	.44	2.56	.53	2.31	.85	2.41	.59	2.50	.55	2.17	.51	2.00	.67	1.00	.00
10.Sharing of integrated computer systems/EDI	1.14	.36	1.11	.33	2.11	.33	1.08	.28	1.86	.47	2.00	.00	1.33	.59	1.71	.71	1.00	.00
11.Good understanding by all parties of competition and marketplace	2.71	.47	2.78	.44	2.33	.50	2.15	.69	2.32	.57	2.33	.52	2.28	.57	1.21	.42	2.00	.00
12.Cultural compatibility	1.29	.47	1.33	.50	1.89	.60	1.85	.55	2.09	.53	2.17	.75	1.94	.54	1.18	.39	2.33	.58

Note: 1. Respondents were asked to identify the reasons for the success of their co-operation in terms of importance: 1 = not important at all; 2 = important; 3 = very important.  
 2. CONF: Conference, SA: Stabilisation Agreement, ALL: Global Alliances, CONS: Consortium, JSA: Joint Service Agreement, JV: Joint Venture, PA: Pooling Agreement, SC: Slot Charter, MA: Merger & Acquisition  
 3. M: Mean, SD: Standard Deviation

By far the most important reason was continual mutual commitment of finance, followed by continual mutual commitment of facilities (ships, equipment), open communication between the parties involved, and compatible decision-making processes.

With regard to pooling agreements respondents considered mutual agreement on co-operation objectives to be the most important reason for their success. As noted earlier, this was also identified as the first ranked reason for the success of both consortia and joint services. The second, equally most important factors for successful pooling agreements were good understanding by all parties of competition and marketplace and compatible decision-making processes.

Respondents considered by far the most important reason for the success of slot charters to be flexibility of co-operation.

This was followed in order of importance by partner compatibility, open communication between the parties involved, good interpersonal relations between partners, and continual mutual commitment of facilities (ships, equipment). In particular, the partners in non-equity co-operation, such as slot charter agreements, can relatively easily terminate the co-operation, primarily because of an absence of shared equity ownership. Furthermore, since slot charter agreements are considered to be contractual arrangements, their inter-organisational dependence is low to negligible and the governance structures do not embed the partners too deeply in the co-operation.

In terms of M&A, three reasons were identified as the most important success factors, which all had the same mean value and standard deviation. These were mutual agreement on co-operation objectives, partner compatibility, and cultural compatibility. The next most important reasons, all possessing the same mean score and standard deviation, were good interpersonal relations between partners, continuous CEO direction and involvement, and good understanding by all parties of competition and marketplace. These findings were closely related to several previous studies in relation to the successful management of M&A. Lim (1998) argued that the integration phase in M&A was the most difficult part for a successful M&A. Broad synergies born on paper may not develop in practice until many people in both organisations know one another personally and become willing to make joint efforts to exchange information, technology, or participate in joint teams.

Drawing on the findings there is reasonable support for

hypothesis II, with the mean score of each individual reason for alliance success being to some extent different for each reason. Hence, it can be concluded that the relative importance of reasons for alliance success varies with the different reason.

### 5.3 Testing Hypothesis III

In the previous section, the importance of the reasons for the success of specific alliance forms has been examined. As noted in the literature on alliance management, it has been argued that alliance success is the result of a variety of reasons, some of which are more important than others, and reasons for alliance success vary with the alliance form itself (Stiles, 1994). This section attempts to verify these arguments in the context of liner shipping alliance (See Fig. 1).

As can be seen in Fig. 1, there are some noticeable differences in the scale of importance of the reasons for success across the different types of alliance. Respondents considered mutual agreement on co-operation objectives as an important reason for the success of most co-operation forms, except slot charters where the ranking had a relatively lower mean value.

The second reason, partner compatibility was found to be a relatively more important factor for the success of operational co-operation forms including joint services, slot charters, M&A, consortia, pooling, joint ventures, and global alliances. While the same reason had a lower mean value for the types of co-operation on rates, such as stabilisation agreements and conferences, this result represented the differences in the nature between operational and non-operational co-operation forms.

The reason, flexibility of co-operation, had a high degree of variation in terms of mean scores for the different types of co-operation. This reason had the highest mean score for the success of slot charter agreements, followed by global alliances, joint services, pooling agreements, and joint ventures, whereas it was identified as relatively less important reason for the success of stabilisation agreements, consortia and conferences. Sample companies considered this to be the least important reason for the success of M&A. Three success reasons including continuous CEO direction and involvement, compatible decision-making processes and open communication between the parties involved exceeded the median measure for the alliance forms of conferences, stabilisation agreements, joint ventures, joint services, pooling agreements and global alliances. However, these reasons

were identified as comparatively less important elements for the success of consortia, M&A and slot charters. Slot charters are ad hoc forms so they do not need any adjustments.

Good interpersonal relations between partners and continual mutual commitment of finance achieved the highest mean scores as reasons for the success of joint ventures, and then as reasons for the success of global alliances, but achieved the lowest mean score as reasons for the success of conferences. It was also found that these reasons were considered less important factors for the success of stabilisation agreements as they play only a small role in freight rate agreements.

Continual mutual commitment of facilities, and sharing of integrated computer systems/EDI achieved the highest mean scores as reasons for the success of global alliances, and then as reasons for the success of joint ventures and joint services. However, they were considered as least important reasons for the success of M&A.

Good understanding by all parties of competition and marketplace was identified as most important reason for the success of almost all co-operation forms, but less important for the success of slot charters. Respondents regarded cultural compatibility as the most important reason for the

success of M&A. However, this was considered to be relatively less important for the success of stabilisation agreements, conferences and slot charters.

Drawing on the findings there is reasonable support for hypothesis III, with the mean score of each individual reason for alliance success being to some extent different for each type of liner shipping alliance. Hence, it can be concluded that the relative importance of reasons for alliance success varies with the form of liner shipping alliance.

## 6. CONCLUSION

The research findings have shown that the majority of strategic co-operation forms, utilised by respondents in this survey, experienced a relatively high level of success. This study indicates that slot charter agreements are regarded as having a greater chance of success than others. In addition, alliance success was shown to be dependent upon a variety of factors and some success factors were more important than others in a particular form of alliances. Also, the relative importance of reasons for alliance success varied with the form of liner shipping alliance.

This study offered insight into how to better manage

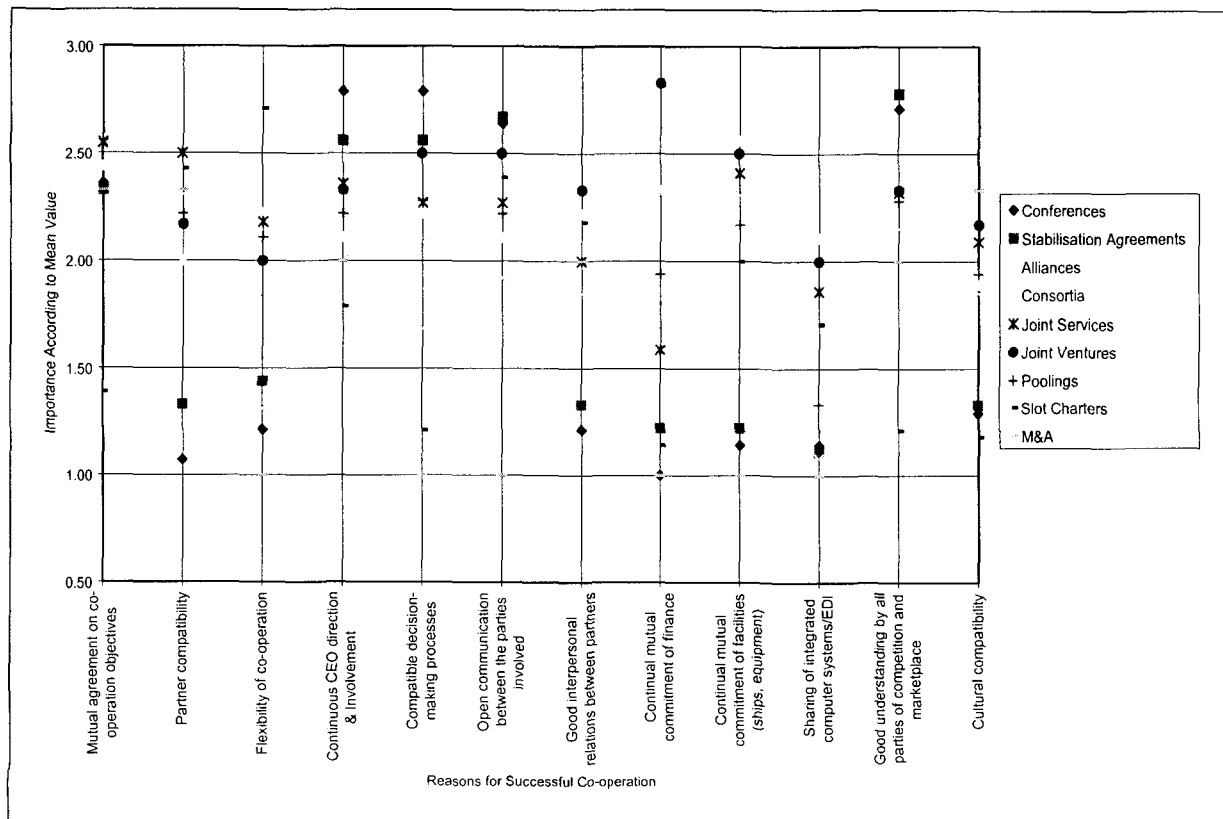


Fig. 1 Importance of Reasons for Success of Different Alliance Forms

cooperative relationships to ensure success. In particular, a specification of the linkages between types of partnership and success factors can serve as a useful approach for shipping practitioners to utilise to reap the benefits of success. The research has shown that different alliance forms required different considerations in alliance management.

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