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Differentiation of container shipping services in Turkey

Gökcay Balci[a,*], Ismail Bilge Cetin[a], Mustafa Tanyeri[b]

[a] Dokuz Eylul University Maritime Faculty, Tinaztepe Campus, 35160, Buca- Izmir, Turkey
[b] Dokuz Eylul University Business Faculty, Tinaztepe Campus, 35160, Buca- Izmir, Turkey

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ABSTRACT

Container lines have limited opportunities to differentiate their core service, port-to-port transportation, since it is based on standardization. Strategic alliances reduce the opportunities for differentiation even further because of the vessel-sharing between container lines. The container shipping, therefore, is becoming a commodity-like industry. The literature on commodity markets and other business-to-business markets suggests firms can differentiate themselves through the service attributes other than core offering. With this perspective, this study aims to explore effective service differentiators of container lines against their strategic alliance partners. We conduct a survey research with container lines and freight forwarders in Turkey and perform exploratory and confirmatory factor analyses. We create an inter-quartile display to illustrate differentiability and importance level of each service attribute. The results indicate that customer service and customer relations can be effective differentiators for container lines. This study suggests that more customer-focused business policies of the container lines may help them to develop and sustain their competitiveness in intra-alliance competition.

1. Introduction

Container shipping industry is crucial for international trade and global supply chains. However, the business of container lines, the backbones of the industry, has gotten tougher in recent years. The market has been witnessing very poor profitability or loss reports of the lines due to the fierce competition and overcapacity problem (Glave et al., 2014). The container lines are not allowed to fix the price and implement capacity adjustments as they used to do in liner conference era (Benacchio et al., 2007). As a result, fierce price-based competition is experienced in the market. Container lines have been striving to decrease their unit cost because of the price wars. They have started to employ mega-size container vessels over 18.000 TEU capacities and optimize their routes, but their services have become less flexible and less customer-oriented (Murnane et al., 2016).

In addition to cost reduction, differentiation is also necessary to compete with rivals and to avoid price-based competition (Shaked and Sutton, 1982). Differentiation does not only help to achieve premium prices as Porter (1985) suggests, it also contributes to distinguishing a brand from competitors' offers (Sharp and Dawes, 2001) and creates a sound positioning of a product or company in the mind of customers, which simplifies buying process (Kotler and Armstrong, 2011). Differentiation also enables a company to be preferred by customers. However, since container shipping is based on standardization, differentiation is very problematic in the market (Lim, 1998). The standardization, in other words, containerization, has provided safer, more reliable, faster and low-cost transportation to the shippers. It has also helped carriers to achieve cost and time savings as well as efficient operational systems such as hub-and-spoke. However, the standardization has left little space for carriers to differentiate their core offerings such as transit time, on time sailing, and space availability at the vessel.

These differentiation options also almost disappear because many carriers form strategic alliances and perform transportation service by sharing the same vessels. Strategic partnerships bring significant operational and cost advantages to shipping lines (Panayides and Wiedmer, 2011). Thus, the majority of global liner shipping operators form strategic alliances with other operators. Nonetheless, the competition does not only occur among the alliances but also among the shipping lines within the same alliance. The lines still compete, but they share the same vessel and offer identical core service to their customers due to strategic alliances (Slack et al., 2002; Maloni et al., 2016). As a result, the limited differentiation options for carriers get even more restricted to their alliance members.

As a result of the standardization and alliances, container shipping is getting a commodity-like industry where heavy price-based competition occurs. Strategic alliance membership in container shipping is an

* Corresponding author.
E-mail addresses: gokcaybalci@gmail.com (G. Balci), ismail.cetin@deu.edu.tr (I.B. Cetin), mustafa.tanyeri@deu.edu.tr (M. Tanyeri).

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indispensable tool as it yields substantial advantages to the lines. On the other hand, differentiation is also a pre-requisite, rather than an optional strategy, for firms to survive in the fierce competition (Sharp and Dawes, 2001). Porter (1985) suggests that companies do not have to focus on only their core products for differentiation: Other differentiation sources also exist such as supportive services, delivery system, marketing approach, relationships, image or anything within the value chain of the firm. Thus, container lines can still differentiate themselves and escape, or at least lessen, commoditization.

The purpose of this paper is to investigate differentiation alternatives of container lines against their strategic partners. Differentiation can be accomplished by any attribute that customers value, but the attribute utilized for differentiation should also be important for clients. Thus, we attempt to illustrate how much important and how much differentiable a service attribute is in container shipping. We especially narrowed our study by investigating only the differentiation between strategic alliance members where the core product attributes seem to be almost identical. We focused on exploring differentiation options among strategic partnership because the effective differentiation options against their alliance members can also be utilized against other non-member shipping lines. Besides, even though the strategic partnerships have been common in container shipping market, to the knowledge of authors, no study has investigated the differentiation among alliance members before.

2. Literature review

2.1. Strategic alliances in container shipping

Ireland et al. (2002) defined strategic alliances as "*cooperative arrangement between two or more firms to improve their competitive position and performance by sharing resources*". Strategic alliances may bring numerous advantages to firms such as eliminating entry barriers, pooling resources, increasing efficiency, sharing expertise, reducing cost, increasing market share, becoming more competitive, reducing risk, gaining access to new markets and sourcing raw materials (Vyas et al., 1995). Container liner shipping is one of the industries that strategic alliances are widespread.

The high fixed cost structure of the market due to regular services between predetermined ports (Davies, 1983; Haralambides, 2007) obliges the lines to co-operate with other lines. In the past, liner shipping companies were allowed to form liner conferences by which they used to fix the prices (Benacchio et al., 2007). The regulations in the US (Ocean Shipping Reform Act 1998) and Europe (Repealing of price fixing from regulation 4056/86 in 2008) do not permit container lines to fix the price and publish common tariffs anymore. Containerization also naturally invalidates the application of tariffs as all type of cargoes started to be carried in standard containers. As a result, strategic alliances have taken places of liner conferences as a means of co-operation (Sjostrom, 2010). In strategic alliances, container lines perform joint activities such as vessel sharing but do not fix the price or allocate customers.

Different types of strategic cooperation exist in container shipping. Heaver (2002) indicated seven types of cooperative agreements in liner shipping: Vessel share agreement, joint ventures, consortia, strategic alliances, conferences, cartel agreements, and mergers. Our study excludes mergers as companies are not able to act and decide independently and cartel agreements and conferences as they are either not exempted by regulators anymore or not attractive in contemporary global trade requirements (Acciaro, 2011). Our study focuses on strategic alliances as means of strategic cooperation. However, though some studies include slot charter agreements and vessel share agreements as a form of strategic alliance (Song and Panayides, 2002) or did not point out differences of these agreements, some papers separated these different agreements. For instance, Ryoo and Thanopoulou (1999) consider slot charter agreement as a contractual agreement and strategic alliances as operational agreement. Our study does not attempt to make a general definition but instead concerns two important common issues: First, marketing activities, including pricing, are left to lines individually (Stopford, 2009). Second, the same vessel is used by the lines between certain ports. Thus, slot charter agreements and vessel share agreements also fall into the attention of our study.

Global Alliance and Grand Alliance were the first two strategic alliances that emerged in 1996. Global Alliance included APL, Nedloyd, MOL, OOCL, and MSC while Grand Alliance included Hapag-Lloyd, NYK Line, NOL, and P&OCL. The alliance memberships have evolved significantly due to mergers, acquisitions, and bankruptcies. As of June 2017, three main global alliances exist: Ocean Alliance, THE Alliance, and 2 M (see Table 1).

Container lines gain significant advantages through alliance formation such as improvement of operational synergy, utilization of container boxes, gaining economies of scale, reducing financial burden of the firm, sharing risks, extending service coverage, increasing sailing frequencies, providing total logistics and intermodal services and entry into new markets (Ryoo and Thanopoulou, 1999; Lu et al., 2006). Despite the particular advantages of strategic alliances, intra-alliance competition is a significant problem that exists among alliance members (Midoro and Pitto, 2000). Competition between the carriers remains, but carriers lose a crucial competition tool against their alliance members: Differentiation.

2.2. Commoditization of container shipping

The commoditization trend expands among many different industries including even complex products like electronics (Olson and Sharma, 2008). The term commodity is usually used for raw materials or agricultural products that can be traded such as tin, crude oil, and corn. We adopt the view of Rangan and Bowman (1992) who state that it is not the type of product (corns or computers), but instead the market dynamics that demonstrate if a product is a commodity. Robinson et al. (2002) defined commodity products as "*those products perceived in the market by both buyers and suppliers, being homogeneous and undifferentiated*". With this perspective, many products are becoming, even if not commodities, commodity-like products.

Reimann et al. (2010b) indicated that two basic reasons of increasing commoditization are more knowledgeable customers and transparency of competitive markets which allows imitation of competitor's product. The origin of these two reasons is actually the globalization that enables easy share of information through information technology and easy movement of people and goods through transportation technology and open border policies. Easiness of information sharing and movement of capital together with people allowed companies to obtain similar production factors; imitate a competitor's production technology; let customers become more informed about the product and alternative suppliers. Matthyssens and Vandenbempt (2008) claimed the three primary drivers of commoditization are standardization, customer experience, and competitive imitation. Standardization provides significant operational efficiencies and permits achieving cost reduction, reliability and productivity improvements (Wang et al., 2010). Standardization of processes also yields significant advantages to firms but, it leads towards commoditization (Davenport, 2005).

Service industries are also getting commoditized as they suffer to differentiate their core offerings (Rothkopf and Wald, 2011). Many service firms pursue standardization, and as a result, standardized services

Table 1
Shipping alliances in June 2017.

Ocean Alliance	THE Alliance	2 M
CMA CGM	K-Line	Maersk
COSCO	NYK Line	MSC
Evergreen	Hapag-Lloyd	
OOCL	MOL	
	Yang Ming	