



Original article

## **Outsourcing the Ship Management Function: A Study on Turkish Shipowners' Attitudes Towards Third Party Ship Management Companies** <sup>☆</sup>

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### **Abstract**

The purpose of this study is to analyze outsourcing ship management function at Turkish shipowning companies and Turkish shipowners' attitudes towards third party ship management companies. A survey method was used for the study. Based on the factors collected both from literature review and interviews, a questionnaire was conducted through Turkish shipowners. The results of the study have revealed that big portion of Turkish shipowners are not willing to give the management of their vessels to third party ship management companies. This study will help researchers and ship managers to understand Turkish shipowners' attitudes towards ship management companies and the root of shipowners' behaviors about ship management companies. This study makes contributions to the limited literature on ship management and third party ship management by analyzing shipowners' attitudes towards third party ship management companies in Turkey.

*Keywords: Outsourcing, Third Party Ship Management, Turkish Shipowners*

## 1. Introduction

As a managerial decision, outsourcing has become prevalent in almost every sector. With the effects of the globalization, competition and rapidly changing environmental conditions, the demand for outsourcing has increased and this situation also has taken hold of the maritime sector. The ship management concept, which is the most important and comprehensive subject for ship owners, consists of different management types and a wide range of sub services connected to it. Rapidly changing market conditions, legal regulations and other environmental factors force ship owners to outsource those services from professionals.

The major arguments advocating the outsourcing of ship management to third party professionals include improvement in efficiency, reduction in costs and professionalism (Panayides, 2001). BIMCO (2009) indicates that there are numerous advantages in employing ship managers, not least the ability to outsource many difficult and labor intensive elements of ship operation and management. It also enables an owner of perhaps just a few ships to operate them without the need for a large in-house organisation. Moreover, placing this small fleet with a sizeable ship management company will generate the advantages of being with a large fleet, such as excellent purchasing power for stores, repairs and other matters which the large manager will be able to obtain. And as the operation of ships becomes more heavily regulated, the demand for these “ships’ husbands” (which they were called in the past) continues to grow.

This study aims to analyze the outsourcing decision of Turkish shipowners and their attitudes to third party ship management companies. The similar studies were conducted by Mitroussi (2004a) on Greek and British shipowning companies and Cetin and Cerit (2014) on Turkish shipowning companies. Cetin and Cerit (2014) analyzed the perception of Turkish shipowners about third party ship management companies for the first time in Turkey with a limited number of participants by using interview method. In this study, it is aimed to make a new and more detailed research to understand the exact attitudes of Turkish shipowners towards third party ship management companies with a large sample by using survey method.

In the study, Section 1 involves introduction. Section 2 is addressed to overall literature review

through which the studies published in third party ship management topic were reviewed. Section 3 puts forward the aim and the methodology of the study. As a methodology, literature review, face-to-face interviews and questionnaire were conducted. The findings of the research are also included in this section. Section 4 provides discussion and section 5 provides conclusions.

## 2. Literature Review

### 2.1. Literature Review on Ship Management

Panayides and Cullinane (2002) empirically identified the dimensions for ship manager selection and performance evaluation and their relative importance. King and Mitroussi (2003) in their study explored how the employment decision of professional ship managers is influenced by the attitudes of family ship-owning businesses in Greece. Mitroussi (2003) investigated and identified the forces which are influent in the separation of ownership and management and also explored the relation and application of these factors to the shipping industry.

Mitroussi (2004a) investigated the reasons why shipowners choose to use or not to use third party ship management by making comparison of two traditional maritime centers, Greece and UK. In this study, the trends that have positive effect on the growth of third party ship management are also introduced. Mitroussi (2004b) also analyzed to find out if there is any relation between the choice of third party ship management and the organizational characteristics (company’s size, age and type) of ship owning firms. Cariou and Wolff (2011) investigated the extent of outsourcing in shipping and identified the key factors affecting the likelihood of outsourcing. The analyses showed that the characteristics of vessels (age, type and size) and the characteristics of shipowner (country of domiciliation and number vessels owned) affect shipowners’ outsource decisions. Panayides and Gray (1997) tried to find out the application of the relationship marketing concept in a professional ship management context. Panayides and Gray (1999) investigated the resource-based theory and competitive advantage relations in ship management context and Panayides (2003) analyzed the competitive strategy-performance relationship in the context of ship management companies. Mitroussi (2013) aimed to reflect on a number of recent developments with a view to provide a critical discussion of their implications for

ship management. Koufopoulos et al. (2010) studied on corporate governance and board practices in ship management companies and Klikauer and Morris (2003) and Chin (2008) studied on crew management concepts. Cetin and Cerit (2014) analyzed the perception of Turkish shipowners about third party ship management companies. The results revealed that majority of the participants are not willing to get management services from third party ship management companies.

Willingale and Spruyt (1998) indicates ship management encompassing miscellaneous types of services. Panayides (2001) stated that the services given by ship management companies can be easily ascertained from the BIMCO SHIPMAN Standard Ship Management Agreement.

## **2.2. Ship Management Services**

Cetin and Cerit (2014) and Willingale and Spruyt (1998) point out that the services specified in the ship management contract include crewing, technical management, insurance, freight management, accounting, chartering, sale or purchase of vessel, provisions, bunkering and operation.

Panayides (2001) indicates that ship management companies provide other services, mainly comprising newbuilding supervision, payroll services, vessel inspection both for purchase and condition audit services, claims handling, supervision of major damage repairs and conversion projects, and planned maintenance and inventory control systems. Ship management companies may also offer advice on the choice of flag and ship registration procedures.

## **3. Research Methodology and Results of Empirical Analysis**

### **3.1. Methodology**

A survey method was used for the study. First of all, a literature review was carried out and then semi-structured interviews were conducted with six Turkish shipowning companies in order to determine the factors affecting Turkish shipowners' attitudes towards third party ship management companies and based on the factors collected both from literature review and interviews a questionnaire was conducted through Turkish shipowners.

### **3.2. Population and Sample**

The population of the study consists of 160 Turkish shipowners which operate their vessels under Turkish and foreign flags and which have all types of

ships which conduct operations actively and listed in Turkish Chamber of Shipping's and Clarksons Shipping Intelligence Network's data base.

The sample was determined by the judgmental method. The sample was determined as 120 companies which is 75 % of the population. However, valid responses to the questionnaires were received from only 58 companies. This represents the 48.3 % of the sample.

### **3.3. Generation of the Questionnaire and Data Analysis**

A Questionnaire with 4 parts was prepared to identify the Turkish owners' attitudes towards third party ship management companies and the demands for the services of these companies. The questionnaire was generated from the data collected from the relevant literature and the interviews conducted with the ship owners available in Izmir.

The first part consists of 5 questions which will reveal the profiles of the participants. The second part consists of 8 questions which include general information on ship owning companies. The third part consists of 6 questions which evaluates Turkish shipowners tendency towards ship management companies and the services taken from these companies. The fourth part consists of 44 questions which reasons for using and not using 3<sup>rd</sup> Party Ship Management Service by Turkish Shipowners. In this part, the questions were prepared in accordance with 5-point Likert scale and they include expressions which intend to reveal the approaches of the participants.

Regarding the analysis of the data, Statistics Package Program SPSS 20.0 was used, which is used for Social Sciences. The data obtained via the questionnaire was subjected to several analysis methods like descriptive statistics and factor analysis.

### **3.4. Findings**

The results obtained through the survey method were as follows:

#### **3.4.1. Profile of the Respondents**

Findings related to the profile variables of the respondents are given in Table 1. According to the findings, 82.8% of the respondents have undergraduate degree, while 10.3% of them have post graduate degree and 6.9 % of them have high school degree. Analyzing the experience periods of the participants in maritime sector reveals that the largest

group (55.2%) was the group with an experience of 15-29 years. 34.5 % of the respondents have the experience period of 0-14 years. Observing the dispersion according to the position of the

participants indicates that operation managers take the 2nd rank with a percentage of 25.9% and DPA takes 20.7%.

**Table 1: Profile of the Respondents**

Education			Position		
Education	(n) Frequency	(%) Percentage	Position in the company	(n) Frequency	(%) Percentage
High School	4	6.9	Chartering Manager	11	19.0
Undergraduate	48	82.8	Operation Manager	15	25.9
Postgraduate	6	10.3	Designated Person Ashore (DPA)	12	20.7
<b>Total</b>	<b>58</b>	<b>100</b>	Owner	4	6.9
			Other	16	27.6
			<b>Total</b>	<b>58</b>	<b>100</b>

  

Experience			Working period		
Experience	(n) Frequency	(%) Percentage	Working period in the company	(n) Frequency	(%) Percentage
0-14 years	20	34.5	0-14 years	48	82.8
15-29 years	32	55.2	15-29 years	9	15.5
30 years and more	6	10.3	30 years and more	1	1.7
<b>Total</b>	<b>58</b>	<b>100</b>	<b>Total</b>	<b>58</b>	<b>100</b>

### 3.4.2. Profile of the Companies

In the second part of the study, the number of ships, sizes of the ships, types of the ships, age of the ships,

the flags of the ships as well as data regarding the scope of companies and their operating period are analyzed. The findings are given in Table 2.

**Table 2: Profile of the Companies**

Type of the Ships			Size of the Ships			Age of the Ships		
Ship types	N*	(%) Pct.	DWT	N*	(%) Pct.	Age	N*	(%) Pct.
Dry bulk	136	37.47	1.000-4.999	64	17.63	0-4	122	33.60
Tanker	105	28.93	5.000-9999	72	19.84	5-9	111	30.58
General cargo	87	23.97	10.000-24.999	48	13.22	10-14	31	8.54

Container	30	8.26	25.000- 49.999	44	12.12	15-19	17	4.69
Ro-Ro	3	0.82	50.000- 79.999	56	15.43	20 and more	82	22.59
Other	2	0.55	80.000 and more	79	21.76	<b>Total</b>	<b>363</b>	<b>100</b>
<b>Total</b>	<b>363</b>	<b>100</b>	<b>Total</b>	<b>363</b>	<b>100</b>	<b>Flag of the Ships</b>		
<b>Scope of the companies</b>			<b>Operating Period of the Companies</b>			<b>Flag</b>	<b>N*</b>	<b>(%) Pct.</b>
<b>Scope</b>	<b>N*</b>	<b>(%) Pct.</b>	<b>Mean:</b>	<b>28,14 years</b>		Turkish	28	48.3
Liner shipping	2	3.4	<b>Operating Period</b>	<b>N*</b>	<b>(%) Pct.</b>	Foreign	13	22.4
Tramp shipping	56	96.6	Less than 28 years	39	67.2	Turkish and foreign **	17	29.3
<b>Total</b>	<b>58</b>	<b>100</b>	More than 28 years	19	32.8	<b>Total</b>	<b>58</b>	<b>100</b>
			<b>Total</b>	<b>58</b>	<b>100</b>	*: Frequency		
						**: Shipowners operating Turkish and foreign ships.		

According to the findings, 58 companies operate 363 vessels. 96.6% of the participants are in tramp shipping sector. While analyzing the operating period of the companies, first, mean of the companies' ages was calculated and the operating period of the companies was analyzed accordingly. 67.2% of the participating companies are in operation for less than 28 years and 32.8 % of the companies are operated more than 28 years.

21.76 % of the participants answered the question on the size of their ships as 80.000 DWT and more. Analysis regarding the type and age of the ships show that dry bulk ships take the first rank (n=136) and most of the ships are at the age between 0-4 years (n=122) with the percentage of 33.60.

According to the survey, 48,3% of the participating

companies operate their ships under Turkish flag, while 29,3% of them owned ships with foreign and Turkish flags. Furthermore; remaining 22,4% operated ships only with foreign flags.

### 3.4.3. Use of Third Party Ship Management

Table 3 shows the situation of participating companies in respect of their choice to use or not to use third-party ship management for their ships. The majority of our sample, 79.3%, does not indicate any use of third-party ship management service for their vessels and only 13.8% are currently employing some form of third-party ship management for their ships, with a percentage in the order of 6.9% stating that they don't use third-party ship management but they may think about it in the future.

**Table 3: Use of Third Party Ship Management**

<b>Use of Third Party Ship Management</b>	<b>(n) Frequency</b>	<b>(%) Pct.</b>
Yes	8	13.8
No	46	79.3
No but thinking about it	4	6.9
<b>Total</b>	<b>58</b>	<b>100</b>

### 3.4.4. Types of Ships and Services Rendered by Third Party Ship Management Companies

Table 4 shows the services that eight (8) ship owning companies tend to be provided with and the type and number of their ships managed by

the independent managers. According to the table, the majority of the companies assign the crewing, the technical management and the provisions of their vessels to independent managers. Also as seen in the table, these companies have a total of 45 ships under the management of third party ship management companies.

### 3.4.5. Reasons for Using Third Party Ship Management Service

This part of the study identifies why shipowners

use 3<sup>rd</sup> party ship management services. Mean and standard deviation values of the responses given to 27 variables are given in Table 5. According to the values given in the table, most important factors that affect the use of ship management service are the lack of experience of shipowner, expertise of ship management company, cost-efficient service of ship management company and wide range of services. On the other hand, the least important factor that affects the use of ship management service shipbuilding market knowledge, having family conflicts in ship owning companies, the scrap market knowledge of ship management company.

**Table 4: Type of Ships and Services Rendered**

Type of Management		Type of the Ships	
Management type	(n) Frequency	Ship Types	(n) Frequency
Crewing	7	Tanker	26
Technical management	5	Dry bulk	17
Provisions	5	General cargo	2
Insurance	3	<b>Total</b>	<b>45</b>
Operations	2		
Sale and purchase	2		
Chartering	1		
Bunkering	1		
Accounting	1		

**Table 5: Reasons for Using 3<sup>rd</sup> Party Ship Management Service**

#### Management Service

Reasons for using 3 <sup>rd</sup> party ship management service	N	M*	Std. Dev.*	Reasons for using 3 <sup>rd</sup> party ship management service	N	M*	Std. Dev.**
Lack of experience of shipowners	58	4.29	0.91	Offering special services	58	3.40	1.16
Expertise of third party ship management company	58	4.19	0.82	Insurance companies' requirements	58	3.36	1.16
Cost-efficient service of 3 <sup>rd</sup> party ship management	58	4.05	0.92	International Ship & Port Facility Security (ISPS)	58	3.31	1.34

companies				requirements			
Wide range of services	58	3.93	1.02	Special requirements of customers	58	3.29	0.97
Accessibility of crew	58	3.93	1.09	Economic pressures	58	3.19	1.23
Lack of ship management dept. in ship owning companies	58	3.91	1.204	Sale and purchase market knowledge	58	2.91	1.288
Port state requirements	58	3.79	1.07	Getting finance	58	2.83	1.41
Classification societies' requirements	58	3.79	1.18	Principals' age	58	2.81	1.33
International Management Safety (ISM) requirements	58	3.71	1.29	Accounting service	58	2.76	1.20
Flag state requirements	58	3.71	1.09	Operating ships at Flag of Convenience (FOC)	58	2.72	1.16
Accessibility of cargo	58	3.66	1.40	Shipbuilding market knowledge	58	2.71	1.28
Legal regulations (IMO&ILO conventions)	58	3.62	1.29	Having family conflicts in ship owning companies	58	2.60	1.25
Information technology	58	3.53	1.15	Scrap market knowledge	58	2.57	1.21
Freight market knowledge	58	3.45	1.366				

\* Mean, 5 Point Likert scale - 1: Very unimportant, 5: Very important  
 \*\* Standard deviation

**3.4.6. Reasons for Not Using Third Party Ship Management Service**

Table 6 shows the reasons why the shipowners don't use the ship management services. Mean and standard deviation values of the responses given to 17 variables are given in Table 6. According to the values given in the table, most important factors that

affect the non-use of ship management services for shipowners are willingness of doing business with his own team, available in-house expertise and desire for control. On the other hand, the least important factor that affects the non-use of ship management services for shipowners is being family-owned enterprise, hard to follow legal regulations because of different flags and having Turkish flagged ships.

**Table 6: Reasons for Not Using 3<sup>rd</sup> Party Ship Management Service**

Reasons for not using 3 <sup>rd</sup> party ship man. service	N	M*	Std. Dev. **	Reasons for not using 3 <sup>rd</sup> party ship man. service	N	M*	Std. Dev. **
Doing the business with his own team	50	4.58	0.73	Difficulty in following ship manag. services	50	3.58	0.97
Available in-house expertise	50	4.52	0.90	Thought of high cost service	50	3.58	1.05
Desire for control	50	4.36	0.74	Unqualified service because of managing so many ships	50	3.44	1.14
Thought of careless ship management service	50	4.24	0.93	High ship management fees	50	3.42	1.01
Keep contact with the market	50	4.12	0.94	Necessity for new department to follow-up the	50	3.38	1.21

Lack of trust to ship management company	50	3.86	0.99	services			
Keeping business knowledge secret	50	3.72	1.16	Being family-owned enterprise	50	3.38	1.33
Limited number of experienced ship man. firms in the sector	50	3.70	0.81	Hard to follow legal regulations because of different flags	50	2.90	1.18
Difficulty in measuring service quality	50	3.64	1.02	Having Turkish flagged ships	50	2.34	1.22

\* Mean, 5 Point Likert scale- 1: Very unimportant, 5: Very important  
\*\* Standard deviation

### 3.4.7. Implementation of the Factor Analysis

Within the scope of the study, factor analysis was applied on the responses (in Likert scale) in the questionnaire form prepared in order to measure the factors that affect the reasons for using and not using ship management services and the effect levels of these factors (Table 7 and 8). Then alpha coefficients of these factors were checked and their reliability was tested individually. When denominating the factors, reasonable effort was made to give a name which could generalize the variables loaded on the factor.

When it was not practicable, denomination was made by considering the biggest variable that is loaded on the factor. Following the factor analysis, in the first place, variables related with the use of ship management services were analyzed. 27 variables were gathered under 7 factor groups. These 7 factor groups are as follows: legal regulations; shipping market knowledge; experience and cost; organizational structure and access to crew; range and quality of service; accounting and finance; and flag of convenience and customer satisfaction.

**Table 7: Factor Analysis of the Variables Related the Reasons for Using 3<sup>rd</sup> Party Ship Management Service**

Factors affecting the reasons for using 3 <sup>rd</sup> party ship management service				Factors affecting the reasons for using 3 <sup>rd</sup> party ship management service			
Variant No	Factor dimensions and the variables that generate them	$\alpha^*$	Factor Loading	Variant No	Factor dimensions and the variables that generate them	$\alpha^*$	Factor Loading
	<b>I. Legal Regulations</b>	<b>0.912</b>			<b>IV. Organization Structure and Access to Crew</b>	<b>0.778</b>	
2	ISM requirements		0.870	12	Having family conflicts in ship owning company		0.848
3	ISPS requirements		0.849	13	Principals' age		0.840
5	Flag state requirements		0.838	20	Accessibility of crew		0.426
6	Port state requirements		0.822		<b>V. Range and Quality of Service</b>	<b>0.725</b>	
4	Legal regulations (IMO&ILO)		0.815	15	Offering special service		0.786
7	Classification societies' requirements		0.748	19	Wide range of services		0.725
	<b>II. Shipping Market Knowledge</b>	<b>0,896</b>		18	Information technology		0.556



22	Freight market knowledge	0.895	16	Expertise	0.547
23	Sale and purchase market knowledge	0.863	<b>VI. Accounting and Finance</b>		<b>0.652</b>
21	Accessibility of cargo	0.839	27	Accounting service	0.789
25	Scrap market knowledge	0.706	26	Getting finance	0.474
24	Shipbuilding market knowledge	0.582	<b>VII. Flag of Convenience (FOC) and Customer Satisfaction</b>		<b>0.385</b>
<b>III. Experience and Cost</b>			<b>0,650</b>		
11	Lack of experience	0.801	10	Operating ships at Flag of Convenience	0.753
17	Cost-efficient service of third party ship man. company	0.787	9	Special requirements of customers	0.572
1	Economic pressures	0.628	*: Cronbach alfa		

In the second place, variables related with the non-use of ship management services were analyzed. 17 variables were gathered under 6 factor groups. These 6 factor groups are as follows: lack of trust and

service quality; desire for control; expertise and commercial privacy; family-owned business and desire for follow-up; flag type; and operating expense.

**Table 8: Factor Analysis of the Variables Related the Reasons for Not Using 3<sup>rd</sup> Party Ship Management Service**

Factors affecting the reasons for not using 3 <sup>rd</sup> party ship management service				Factors affecting the reasons for not using 3 <sup>rd</sup> party ship management service			
Variant No	Factor dimensions and the variables that generate them	$\alpha^*$	Factor Loading	Variant No	Factor dimensions and the variables that generate them	$\alpha^*$	Factor Loading
<b>I. Lack of Trust and Service Quality</b>			<b>0.712</b>	<b>IV. Family-owned Business and Desire for Follow-up</b>			<b>0.570</b>
17	Unqualified service because of managing so many ships		0.801	9	Being family-owned enterprise		0.794
3	Lack of trust to ship management company		0.774	5	Necessity for establishing new department to follow-up the services		0.707
12	Difficulty in measuring service quality		0.616	<b>V. Flag Type</b>			<b>0.645</b>
11	Limited number of experienced ship man. firms in the sector		0.456	13	Having Turkish flagged ships		0.724
<b>II. Desire for Control</b>			<b>0.716</b>	16	Hard to follow legal regulations because of different flags		0.529

2	Desire for control	0.837
4	Difficulty in following ship man. services	0.706
15	Thought of careless ship man. service	0.588
<b>III. Expertise and Commercial Privacy</b>		<b>0.634</b>
7	Keep contact with the market	0.808
6	Available in-house expertise	0.737
10	Keeping business knowledge secret	0.677

**VI. Operating Expense 0.530**

14	High ship management fees	0.838
1	Thought of high cost service	0.729

\*: Cronbach alfa

**4. Discussion**

When the literature is reviewed, it can be seen that there exist only two studies written on shipowners' attitudes towards third party ship management companies which have been prepared by Mitroussi (2004a) and Cetin and Cerit (2014) as an addition to this study. The motivation of this study aims to analyze the Turkish shipowners attitudes towards third party ship management companies with larger participants. However almost similar results have been obtained with Cetin and Cerit (2014) and Mitroussi (2004a).

When these three studies are compared, similar results are seen. For instance, Cetin and Cerit (2014) indicates that in their study shipowners do not have the willingness of giving their vessels to the management of third party ship management companies. This result is consistent with Mitroussi (2004a) as she found that the majority of total sample does not indicate any use of third-party managers for their fleets. This is because of the fact that Turkish shipowners traditionally operate their vessels themselves and they prefer to have complete control over them like the notable observation that arose from the investigation of Mitroussi (2004a). In consistent with Mitroussi (2004a) and Cetin and Cerit (2014), although a small portion of the owners take on the management services, they do not frequently assign full management to third parties. Both Turkish

**5. Conclusions**

This study aimed to analyze the outsourcing of ship management function at Turkish shipowning companies and to identify the attitudes of Turkish shipowners' towards third party ship management companies, explored the situation of getting services

and Greek ship owners who used third party ship management state that they tend to give out more frequently the crewing, the technical management and provisions of their vessels and less frequently the commercial management.

This study and Cetin and Cerit (2014) reveal that the lack of experience of shipowner, expertise of third party ship management company and cost-efficient service of third party ship management company are the main reasons that encourage shipowners to get service from third party ship management companies. According to Mitroussi (2004a), the thing that both Greek and British owners seem to value most about third-party ship management is its expertise, the access to cheap and qualified crew and the flexibility.

Another notable observation that arose from our investigation is that most important factors affecting the non-use of ship management services for Turkish shipowners are willingness of doing business with own team, available in-house expertise and desire for control over their ships. The same results were reached by Cetin and Cerit (2014). On the other hand, available in-house expertise, desire for control and keeping contact with market are the most significant factors for Greek and British shipowners.

from third party ship management companies and its reasons. To understand the attitudes of Turkish shipowners a questionnaire was conducted through Turkish shipowners.

The results of the study reveal that big portion of

Turkish shipowners are not willing to give the management of their vessels to third party ship management companies. The results also reveal that the main reasons behind this are: Turkish shipowners traditionally operate their vessels themselves and they prefer to have complete control over them; they wish to manage their vessels with their own team; and they think that they have an efficient and effective in-house expertise in management of their ships. On the other hand, the study indicates that the main reasons to use the ship management companies are lack of expertise of shipowners, cost efficient services of ship management companies and wide range of services rendered by ship management companies.

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