Turkish Ship Chandler Companies: A Marketing Success or a Disappointment?

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Abstract: *Ship chandling, which is an important maritime marketing technique, is analyzed at service level for both Turkish and foreign vessels at Turkey. The service quality perceptions of the Turkish customers and foreign customers on ship chandling are monitored by using SERVQUAL. The customers of these companies are the ships. The captains represent the customers as they are responsible for all the operations of a ship. Net promoter score is also used to observe the profile of the customers. 102 captains are interviewed. 42 captains of Turkish ships and 60 captains of foreign ships are compared to each other. The service quality of the ship chandler companies to the groups seems to be differing except tangibility. On the other hand the perception of the customers also seem to be different according to the results of net promoter score test. Some Turkish companies focus on ship chandling, it is their core competence. On the other hand some other companies evaluate ship chandling as an alternative operation which is preferred to use unitilized capacity. The efficiency of the ship chandler companies can be increased by taking this survey into account.*

Keywords: *marketing technique, service quality, SERVQUAL, ship chandler companies, shipping.*

I. INTRODUCTION

The ships are huge transportation vehicles. Cruise ships are used for passenger transportation, ro-ro ships are used for vehicle transportation and the rest of the ships are used for various transportation purposes. These ships need several things during their trips. Ship chandling is the business which focuses on these needs. As the tonnages of a ship increases, its need will increase. Not only cruise ships or ro-ro ships need to supplied often, but also the other ships need to be supplied frequently. Unexpected technical device or pieces might be necessary, the necessities of a ship are not only food. Anything, which is necessary on the shore, can also be necessary on board. On the other hand, it should be admitted that food is the main demand. For this reason, ship chandler companies mostly focus on food export in Turkey.

The ship chandler companies have a great advantage in Turkey. The main advantage of these companies is the lower prices of the food. Besides the quality of vegetables and fruits is high in Turkey. Technical tools can also be supplied with lower prices. Because there are many shipyards in Turkey and there is an industry improved around these shipyards. If the situation of Turkish ship chandler companies are evaluated in a resource based approach, then a great success would be expected (Grant, 1991). The geopolitical position of Turkey is also advantegous for the ship chandler companies. Dardanelles and Bosphorus are hosting several ships from several countries every day. This is a great advantage for transit ship chandling. Especially, the old Russian ships which pass through Bosphorus and Dardanelles, are good opportunities for ship chandlers. These ships need many technical items as they are old.

Except the route of Marmara, there are many ports where the ship chandlers can supply the vessels. These ports usually have better cost advantages, especially for food. For example, organic food products can be provided in Mersin port with better quality and cheaper prices. The ship chandlers in Mersin are focused on procurement, but just like all the other companies which focus on procurement, they are not aware of the cost advantage of the other ship chandler companies (Johnson, 2005). Ship chandlers which are located in Istanbul, are able to sell their products to the ports of Mersin. It is not a surprise to see Turkish exporters such as ship chandlers in a strong competition (Karafakioglu, 1986). Shipchandling sector is somehow different, due to the limited demand. Keiretsu model may not be formed in Turkey, but some colloborations are possible. These colloborations can create synergy. At least, information flow can be provided to avoid credit costs and any kind of information flow among the companies can increase efficiency (Sinkula, 1994). Otherwise competitive environment can be destructive (Slater and Narver, 1994).

II. LITERATURE REVIEW

Turkish ship chandler companies accept the whole ship supplying operation as a process. The only separate process is the inquiry and quotation process. This process which takes place before the order, is an uncertain process. The ships send an inquiry to the ship chandler companies and the ship chandler companies

send their best quotations. Normally, the one with the best prices will be chosen. But sometimes the owners of the ship or the captains of the ship calls the company to ask for discount or commission. Commission, which is paid to the captain or the first engineer is not accepted as something illegal by most of the companies. The second step of ship chandling is preparing the goods and taking them into custom and supplying them to the vessel under the control of custom authorities. Custom and custom operations are not necessary to be elaborated for this study as they have no impact on the result. There are two ways of ship chandling. First is supplying the vessels at the ports, the second is supplying the vessels on transit by the tag boats.

The trucks can enter the ports and supply the vessel with the assistance of a crane. Sometimes the crane of the ship and sometimes an available crane of the port is used. The service quality of such an operation is sometimes strictly correlated with the organization of the port. Some ports have stricker custom operations. Some ports have some possibilities like crane. Some ports are too crowded and the workers do not pay attention to the ship chandlers. These factors affect the performance of the ship chandler. For example, it is observed that some frozen products like ice cream, have been damaged during a supply operation because of the latencies which resorced from port management. The transit operations, which are made by the tag boats, are directly correlated with the performance of the ship chandlers. The tag boat companies, which are known as sub agents, also have a little effect. But the ship chandlers can manage the sub agents if they are experienced and avoid any kind of problems which can be occured due to the tag boats.

Demand management process is not managed as effective as expected by the ship chandler companies. Value creation step of demand management is the beginning (Anderson and Narus, 2003). Technology follows value creation (Albright and Kappel, 2003). The customers should be analysed by using technology (Campbel and Cunningham, 1983). This kind of analyses can be done by using the customer datas. It is usual to see the customers deciding their portfolios of suppliers (Olsen and Ellram, 1997). On the other hand, the sellers should also decide their portfolios, thus the ship chandler companies should also decide their portfolios to reduce their credit risk (Krapfel, Salmond and Spekman, 1991).

Portfolios are important, because of the chase demand strategy of the Turkish ship chandler companies. Demand modification is almost never used. Demand modification can be preferred, if it is appropriate for the sector (Fitzsimmons and Fitzsimmons, 2008). Demand is the main factor that influences the purchasing strategy of a company (Farrel and Schroder, 1996). The profitability of the ship chandler companies can be increased by demand modification and the peak-off demand can also be managed for export. Sustainable products can be formed. But for such a purpose, regular customers are necessary. The customers of ship chandler companies might be regular, but their routes can be changed suddenly. Due to various reasons, demand modification is difficult in ship chandling sector.

The sub agents assisted this study and the captains of the vessels which are passing through participated our study. The reason of not preferring the vessels which are in the ports, is explained by the impact of the ship chandler companies on the operations. Turkish ship chandler companies have two kind of customers: Turkish and foreigner customers. The main aim of this study is elaborating the approach of the Turkish ship chandler companies to their customers and researching the existence of a difference on the approaches of the ship chandler companies to these customers.

III. RESEARCH METHODS

The service quality of the ship chandler companies are measured. SERVQUAL is used for evaluation (Parasuraman, Zeitmal and Berry, 1991). Ship chandler companies assisted this study. The first, second and the third captains of the ships who are authorized to give order to the ship chandlers are interviewed. The ship chandler companies visited the ships to deliver the ordered items or for collection. During these visits, the captains are interviewed.102 captains have participated to this research. These 102 captains are classified into two groups. The first group is formed of 42 captains who have Turkish origin or are working in a ship with Turkish crew, the second group is formed of 60 captains who are foreigners. 40 captains of the first group are Turkish and 2 of these captains are Azerbeijani. The second group has 2 German, 4 Rumanian, 17 Greek, 1 British, 8 Russian, 2 Ukranian, 12 Indian, 1 Pakistani, 4 Iranian, 1 Arab, 3 Dutch, 1 Danish, 1 Latvian and 3 Lithuanian captains. The questionnaire has 39 questions. The variables are empathy, assurance, reliability, responsiveness and tangibility. 13 questions are expected to measure empathy, 8 questions are expected to measure assurance, 7 questions are expected to measure reliability, 5 questions are expected to measure responsiveness and 6 questions are expected to measure tangibility. The results of these groups are compared to each other by independent samples t-test. It is tested if there is a difference between the service quality of these groups or not. Net promoter score (Reichheld, 2003) is used to observe the customer profile of the groups. The question is changed to understand the general behaviours of the customers. The question was "Would you recommend your chip chandler company to the other people if you were satisfied?". The score for the answers was between 1 and 10. To find the NPS, two groups formed. First group includes the people who scored between 9 and 10 and the second group includes the people who scored between 1 and 6.

IV. FINDINGS AND DISCUSSION

The frequency table of the sampling can be seen on Table 1. The only female captain is British. The income levels of the captains are mostly between 3.000 and 5.000 US dollars. 12 of the participants have master degree, none of them has a doctorate degree. Their duration of working with their ship chandler company is mostly between 1-3 years.

Table 1. Frequency table

		Frequency	Percent (%)
Gender	Male	101	99
	Female	1	1
	Total	**102**	**100**
Nationality	Turkish	42	42
	Others	60	60
	Total	**102**	**100**
Income	3000-	8	7,8
	3000-5000	76	74,5
	5000-7000	15	14,7
	7000-10000	1	1
	10000+	2	2
	Total	**102**	**100**
Education	undergraduate	90	88,3
	master/doctorate	12	11,7
	Total	**102**	**100**
Duration	1-3 years	76	74,5
	4-6 years	17	16,7
	7-10 years	7	6,9
	10+	2	2
	Total	**102**	**100**

The descriptive statistics are shown on Table 2. After the factor analysis, 7 questions are eliminated. 5 variables of empathy, assurance, reliability, responsiveness and tangibility explained our research point with %79,765 of success. The remaining questions could measure empathy with %35,692, assurance with %28,516, reliability with %7,353, responsiveness with %4,799 and tangibility with %3,405.

Table 2. Descriptive Statistics

		Gender	National	Income	Education	Duration
Mean		1,0098	1,5882	2,1471	1,1176	1,3627
Median		1	2	2	1	1
Mode		1	2	2	1	1
Std. Deviation		0,0990	0,4946	0,6509	0,3238	0,7006
Skewness		10,1	-0,364	1,823	2,409	2,002
Std. Error of Skewness			0,239	0,239	0,239	0,239
Percentiles	25	1	1	2	1	1
	50	1	2	2	1	1
	75	1	2	2	1	2

Table 3 shows the descriptive statistics of the new variables. The mean of all the variables change between 2,32 and 3,44. This value which should be evaluated by taking 5 point Likert scale into account.

Table 3. Descriptive Statistics of the new variables

	Nationality	N	Mean	Std. Deviation	Std. Error Mean
EMPATHY	Turkish	42	2,2937	,87328	,13475
	Others	60	3,4431	,71134	,09183
ASSURANC	Turkish	42	3,1151	,67423	,10404
	Others	60	2,1972	,56789	,07331
RELIABIL	Turkish	42	2,6667	,92008	,14197
	Others	60	2,0000	,62606	,08082
RESPONSI	Turkish	42	3,1190	,55496	,08563
	Others	60	3,0000	,76653	,09896
TANGIBIL	Turkish	42	2,9524	,72722	,11221
	Others	60	2,3222	,54537	,07041

The five variables of empathy, assurance, reliability, responsiveness and tangibility are used for comparison. The results of independent sample t-test are shown on Table 4. There is a significant difference between empathy, assurance, reliability and tangibility. The difference is not significant for responsiveness.

Table 4. Independent sample t-test results

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
EMPATHY	Equal variances assumed	1,607	0,208	-7,308	100	0	-1,1494	0,15729
	Equal variances not assumed			-7,049	76,467	0	-1,1494	0,16307
ASSURANC	Equal variances assumed	2,547	0,114	7,434	100	0	0,9179	0,12347
	Equal variances not assumed			7,212	78,397	0	0,9179	0,12727
RELIABIL	Equal variances assumed	4,983	0,028	4,357	100	0	0,6667	0,153
	Equal variances not assumed			4,081	66,993	0	0,6667	0,16337
RESPONSI	Equal variances assumed	5,874	0,017	0,86	100	0,392	0,119	0,13836
	Equal variances not assumed			0,91	99,864	0,365	0,119	0,13086
TANGIBIL	Equal variances assumed	2,329	0,13	5,001	100	0	0,6302	0,12601
	Equal variances not assumed			4,757	71,894	0	0,6302	0,13247

Turkish captains find Turkish ship chandlers more reliable and they are more confident. For this reason, they find the assurance of Turkish companies higher. This situation is explained by the ship chandler agents with the language problem. They admit that wrong items are delivered to the foreign captains sometimes, due to the language problems and terms. It is not always the fault of ship chandler company, as English is not the native language of the most captains, cooks and engineers. Captains might have fluent and perfect English, but it is not enough. Because the orders are told to the captain by the cooks or the first engineers. First engineers are not able to check every item which is ordered by the other engineers.

Due to the mistakes of delivery, foreign captains do not find Turkish ship chandlers so reliable. It is a big deal for the captains if they are going to head for a long journey without passing near to a center. In such a situation, the ship will have to sail without the necessary items, which might make life more difficult for somebody at the ship. Unhappiness is just like a contagious disease in a ship.

Turkish captains mostly stick to the same route and even if they do not, there will be some other vessels of the same company which will pass through the same route. It means that any mistakes can be compensated by the ship chandler company. The Turkish captains are aware of that and they are confident and assured by the ship chandlers. But the agents cannot assure foreign captains. They may not be able to speak as fluent as necessary to assure the captains or the captains may be worried about any fraud or insouciance. Turkish captains mostly live in Istanbul and the ship chandler companies are mostly in Istanbul, almost all of them. Turkish captains know the ship chandler companies, maybe for this reason; tangibility is higher for Turkish captains.

The most surprising result is the results of empathy. The foreign captains find the empathy of the sales representative who visits the ships, higher than Turkish captains. The ship chandler companies mention that the truck drivers mostly visit Turkish ships. But the foreign vessels are visited by well-educated young students or undergraduates. They are able to speak at least a foreign language and comparing to the staff, who visits Turkish ships, they are gentler. They have better social relationships and their education level is higher.

On the other hand, the perception of the groups should also be elaborated. Net promoter score is used to differentiate the perception of the groups. Table 5 shows the frequency table of the answers to our question for NPS.

Table 5. Frequency table of NPS answers

	Frequency	Percent
1	8	7,84
2	8	7,84
3	2	1,96
4	6	5,88
5	6	5,88
6	15	14,71
7	5	4,9
8	25	24,5
9	10	9,80
10	17	16,67
Total	**102**	**100**

The frequency table of the answers of Turkish captains can be seen on Table 6. The net promoter score of these people is -21. They seem to be detractors. The SERVQUAL results can be revised by taking this information into account.

Table 6. Frequency table of Turkish captains' NPS

	Frequency	**Percent**
1	5	11,9
2	5	11,9
3	2	4,76
4	2	4,76
5	2	4,76
6	10	23,8
7	1	2,38
8	10	23,8
9	2	4,76
10	3	7,14
Total	**42**	**100**

Table 7 shows the allocation of the answers of foreign captains to NPS question. 12 of 17 Greek captains scored 10 for the question. The net promoter score of this group is 3. There is a big difference between the net promoter score of the two groups.

Table 7. Frequency table of foreign captains' NPS

	Frequency	**Percent**
1	3	5
2	3	5
4	4	6,67
5	4	6,67
6	5	8,33
7	4	6,67
8	15	25
9	8	13,34
10	14	23,33
Total	**60**	**100**

V. CONCLUSION

The service quality of Turkish ship chandler companies vary from a customer to another in many ways. Assurance, reliability and tangibility are perceived higher by Turkish customers comparing to the foreign companies. The location of the headquarters can explain this situation. The headquarters of these companies are located in Turkey.

When the empathy results are also taken into account, it is realized that another explanation is necessary for the situation. The Turkish ship chandler companies are mostly family companies. They prefer to employ their relatives instead of well-educated teens. Instead of employing people with good foreign language knowledge, they prefer to employ their relatives who try to learn foreign language. They sometimes send their relatives abroad for this purpose. This situation of the Turkish ship chandler companies might affect the performance. Because the effectiveness of the sales forces has to be well understood by the service companies for better service (Deeter-Schmelz, Kennedy and Goebel, 2002).

Employing staff with good foreign language is inevitable. These employees sometimes provide better service. For this reason, foreign captains found empathy higher in Turkish ship chandler companies. Some captains have written extra notes to explain that the most effective factor on choosing their ship chandler company is the sales representatives. 12 of the captains have written that they keep on working with their ship chandler only for their ship chandlers. 3 of these captains are Russian, 5 Greek, 1 Ukranian, 2 Romanian and 1 of them is Dutch.

Sub agents confirm this information. They add that there are some sales representatives who have taken the customers of a ship chandler and opened a new company with these ship chandlers. They have mentioned that there are also many captains who stopped working with their ship chandlers when they could not meet the person they used to know. It is believed that there are many points beyond costs and strategies on board. Because the captains sail for a long time without seeing a friend, sales representatives are sometimes their only guests. The net promoter score has shown that the perceptions of two groups are also different. Sub agents mention that the foreign captains are mostly gentle and happy to see them. But it is usual to see a Turkish captain snorting. They insist that some of Turkish captains are happy when they find something to complain.

If the net promoter score and the information which is given by the sub agents are true, then ship chandler companies have a great success on their Turkish customers. In any case, the Turkish ship chandler companies have to improve themselves to provide a better service for the foreign companies. Turkish ship chandler companies have competitive advantages for sustainable marketing (Bharadwaj, Varadarajan and Fahy, 1993).

The education and qualification of the customer representatives is a constraint for the ship chandler companies. Labor is the main concern of the service supply companies (Ellram, Tate and Billington, 2007). The labor constraint can be passed by cooperation. Cooperation can cause synergy and it is inevitable for the growth of export (Katsikeas and Leonidou, 1996). Turkish ship chandler companies are focused on low cost. This kind of an export strategy can be destructive if the market is not huge enough (Katsikeas, Hultman and Robson, 2009). A powerful management and a strict control are necessary for implementing low cost marketing strategy (Noble and Mokwa, 1999). On the other hand, both management and control is not possible without initiative. The strategic alliances between ship chandler companies and sub agent companies vary the implementation of the strategies (Strahle, Spiro and Acito, 1996). This collaboration increases the efficiency of the operations. The ship chandler companies are mostly assisted with the strategies of the sub agents. The continuity of the ship chandler companies is important for the sub agents. Because their best customers are ship chandler companies and their tag boats are mostly hired by the ship chandler companies. The knowledge relatedness is one of the greatest advantages of an assisting company (Tanriverdi and Venkatraman, 2005). Sub agents enjoy this advantage.

The educated staff constraint is also the sign of lacking strategies. With the true strategies, educated employees can be hired. Value creation is necessary for the employees, as much as it is necessary for the customers (Walter, Ritter and Gemünden, 2001). The ship chandler companies which can create value for the employees can attract the educated employees.

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