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# **Factors Effecting Seafood Consumption Behaviour for Seafood Consumers**

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#### Abstract

This study was applied to 407 seafood products consumers in Adana province and 347 consumers who participated in the survey consumed seafood and 60 consumers not consumed seafood. All factors except shelf life were significant (p <0.001) as a result of Chi-Square test applied to the reasons of not consuming seafood. The factor that cause not to consume seafood could be given in order of importance as, taste, smell, vegetarianism, habit, high price, allergic causes, insecurity, eating difficulty, health effect, religious reasons. Significant differences were also found in the responses to seafood consumption frequency (p <0.05, p <0.01) and the first order of consumption was sea and freshwater fish. It was also determined that 71.1% of consumers of seafood consumed fish between 500-6000 gr per month and fish market was the most preferred place to buy fish.

Keywords: Seafood, consumption behaviour, seafood consumers, survey, Turkey

## INTRODUCTION

Consumer behaviour is the process of individual decisions about how, where and when to buy which goods and services. Consumer behaviour can be defined as the actions and decisions of individuals to purchase and use, in particular economic products and services (Durmaz etc, 2011). Factors affecting consumer behaviour are;

- Cultural Factors: It is classified under three sub-headings as Culture, Subculture, Social Class.
- Social Factors: Reference Groups are categorized into three sub-headings: family, roles and statutory.
- Psychological Factors: motivation, intuition, learning, perception, attitude, personality, beliefs and attitudes are classified.
- Personal Factors include four important topics: age and lifespan, lifestyle, economic conditions, occupation, personality and health. (Durmaz, 2008).

Each of these factors, along with their sub-titles, take place separately in consumer behaviours. Today, people are demanding healthy products to eat healthy all over the world. Especially in meat species, fish meat is an indisputable food in terms of nutritional value and human health.

Turkey, which has rich resources in terms of seas and inland waters, differs from the world's developed countries in terms of consumption patterns of fisheries and marketing channels (Tolon and Elbek, 2016). It is observed that aquaculture, which is a good source in terms of nutritive properties, has not been balanced in Turkey in recent years both in production and in consumption. (Senol and Saygı 2001, Orhan and Yuksel 2010). Due to the heterogeneous product variety among the regions, there is a consumption pattern presented as frozen in fresh or cold air systems. Therefore, the fact that a coherent aquaculture production and a dynamic contemporary marketing system cannot be created is a challenge that affects domestic consumption (Tolon and Elbek, 2016).

Total production of fishery products in Turkey in 2015 has been reported as 672.241 tons (Ministry of Food, Agriculture and Livestock). This figure is very low for Turkey, which has a high water-producing potential. In addition,

Turkey's average consumption of water products in 2015 is 6.1 kg per capita and well below developed and many developing countries' consumption values. (Ministry of Food, Agriculture and Livestock). It is very important to show why people in Turkey, where the three sides are surrounded by seas and have rich inland waters, consume less. Putting out the reasons for not consuming in this context will probably be a guide to increase the consumption rate.

The purpose of this study is to investigate the characteristics of consumer behaviours in the consumption of seafood products which are very healthy and nutritive.

## **MATERIALS and METHODS**

Our survey was conducted in major markets selling fish in Adana province. A total of 407 people was surveyed in our study and it was determined that 607 individuals consumed aquatic products and 347 individuals consumed aquatic products.

The percentage frequency of the data obtained in the study was established and the Chi-Square test was applied to test for differences in the frequency of consumption

### RESULTS and DISCUSSION

A total of 407 people participated in the study which 347 consuming and 60 not consuming the seafood. Percent frequency table for the responses of 60 people who did not consume seafood and The Chi-Square test results for determining whether there are differences between the responses are given in Table 1.

The Chi-Square test results for determining whether there are differences between the percentage frequency table and the frequency of consumption of the 347 participants consuming seafood on a variety basis are given in Table 2.

The percentage frequency values for the monthly consumption amounts of the consumers of seafood products participating in the survey and the Chi-Square test results for the Consumption Frequency are given in Table 3.

Table 4 shows the percentage of fresh seafood purchase places and the Chi-Square test results for the frequency of consumption.

Table 1. Percent frequency table and Chi-square test results for reasons why consumers do not consume seafood products

	1 f (%'f)	2 f (%f)	3 f (%f)	4 f (%f)	5 f (%f)	df	Chi-Square
I do not like tasting	3(5,0)	1(1,7)	1(1,7)	4(8,3)	50(83,3)	4	151,333**
Shelf life	14(23,3)	8(13,3)	10(16,7)	9(15,0)	19(31,7)	4	6,833
High price	9(15,0)	2(3,3)	4(6,7)	15(25,0)	30(50,0)	4	42,167**
Health impairing effect	15(25,0)	3(5,0)	11(18,3)	16(26,7)	15(25,0)	4	9,667*
I am not accustomed	10(16,7)	3(5,0)	9(15,0)	5(8,3)	33(55,0)	4	48,667**
Insecurity	13(21,7)	2(3,3)	10(16,7)	15(25,0)	20(33,3)	4	14,833**
Eating is not easy	10(16,7)	1(1,7)	18(30,0)	13(21,7)	18(30,0)	4	16,500**
Odor	6(10,0)	1(1,7)	4(6,7)	7(11,7)	42(70,0)	4	95,500**
Religious reasons	30(50,0)	8(13,3)	7(11,7)	6(10,0)	9(15,0)	4	34,167**
Allergic tendencies	17(28,3)	2(3,3)	4(6,7)	15(25,0)	22(36,7)	4	24,833**
vegetarian	14(23,3)	2(3,3)	2(3,3)	7(11,7)	35(58,3)	4	63,167**

<sup>\*\*:</sup> p<0.01

**Table 2.** Chi-Square test results for percent of consumption and per capita values of consumer consumption of aquatic products on a variety of basis

	Never f (%f)	Rarely f (%f)	Sometimes f (%f)	Always f (%f)	df	Chi-Square
Sea Fish	12(3,5)	10(2,9)	41(11,8)	284(81,8)	3	604,942**
Freshwater Fish	147(42,4)	31(8,9)	114(32,9)	55(15,9)	3	97,853**
Shrimp	300(86,5)	20(5,8)	24(6,9)	2(0,6)	3	705,792**
Crab	320(92,2)	13(3,7)	10(2,9)	4(1,2)	3	836,689**
Mussel	256(73,8)	15(4,3)	56(16,1)	20(5,8)	3	451,813**
Squid	293(84,4)	17(4,9)	28(8,1)	9(2,6)	3	655,916**
Octopus	331(95,4)	10(2,9)	6(1,7)	-	2	601,389**
Lobster	323(93,4)	13(3,8)	7(2,0)	3(0,9)	3	862,740**
Clam	341(98,3)	5(1,4)	1(0,3)	-	2	658,536**

<sup>\*\*:</sup> p<0.01

Table 3. Percentage of per capita consumption of fishery consumers and Chi-Square test results for Consumption Frequencies

	Frequency	Percent	Df	Chi-Square
501gr<	75	21,6		
501gr-2000gr	117	33,7		
2001gr-4000gr	73	21,0	4	63,908**
4001gr-6000gr	57	16,4		
6000gr>	25	7,2		
Total	347	100,0		

<sup>\*\*:</sup> p<0.01

Table 4. Chi-square test results for frequency percentages and consumption frequency of fresh seafood purchase points

	Never	Rarely	Sometimes	Always	df	Chi-Square
Fish market	f (%f) 80(23,1)	f (%f) 12(3,5)	f (%f) 118(34,0)	f (%f) 137(39,5)	3	105,300**
District fish seller	209(60,2)	19(5,5)	104(30,0)	15(4,3)	3	287,963**
Neighbourhood market	256(73,8)	28(8,1)	54(15,6)	9(2,6)	3	452,043**
Street vendor	282(81,3)	30(8,6)	25(7,2)	10(2,9)	3	588,435**
supermarket	204(58,8)	22(6,3)	83(23,9)	38(11,0)	3	234,360**
hypermarket	225(64,8)	25(7,2)	72(20,7)	25(7,2)	3	310,741**

<sup>\*\*:</sup> p<0.01

When the Chi-Square test results are examined in Table 1, all other factors except the shelf life (p>0,05) were determined as significant (p<0,01). When the frequency table of the reasons for not consuming aquatic products is examined, the factors that prevent consumption are determined as taste, smell, being vegetarian, unfamiliarity, price, allergic causes, confidence, shelf life and difficulties in eating.

When the results of Chi-Square test are examined in Table 2, there is a significant difference between the consumption frequencies of all specifications (p <0.01). When the percentages of seafood consumption of the participants were examined, it was found that they consumed mostly sea fish (81.8%) and then the freshwater fish (15.9%). It has been determined that other seafood is not consumed at a high level. Sen and Ark. In 2008, 16% of their work in Elazığ consumed sea fish and 33% of them consumed fresh water fish. This is inversely related to our work. Because our work is done in the Mediterranean region and there are a lot of sea fish. However, Şen et al. The work of 2008 was carried out in Elazığ and this region has a very high rate in terms of fresh water fish farming.

The Chi-Square test results in Table 3 show that there is a significant difference between the frequency of consumption (p <0.01). When the percentages of consumption frequencies are examined, the highest consumption is 501-2000 gr. (33.7%) and the least consumption was found to be 6000 gr> (7.2%). Şen et al. 2008, found the highest fish consumption as 0-500 gr.

According to the results of Chi-Square test in Table 4, there was a statistically significant difference in frequency of preferred places for fresh seafood purchase (p <0,01). When the percentages of frequency values were examined, it was determined that consumers prefer fish market and super market when buying fish products. Şen et al. in their research 2008, they reported that the fish market of consumers was not clean enough. Tolon and Elbek stated that they preferred retail stores in their 2016 studies and preferred the second planet Hipemarket. These results are almost the same as

## **CONCLUDING COMMENTS**

As a result, when the factors affecting consumption behaviours of seafood consumption of consumers who participated in my study were examined, the most important reasons for not consuming seafood were found as taste and smell. In addition, the most preferred product among seafood is sea fish, and consumers consume an average of 501-2000 gr seafood a month, and when they buy seafood, they mostly prefer fish markets and hypermarkets.

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