

Consumer Behaviours for Seafood in Ordu Province

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Özet

Ordu İlinde Deniz Ürünleri Tüketim Alışkanlıkları

Karadeniz sahilinde bulunan Ordu ilinde 2012 yılında yapılan bu araştırmada bölgedeki su ürünleri tüketim alışkanlıkları ve sosyo ekonomik durumları ortaya konmaya çalışılmıştır. Bu kapsamda tesadüfi seçilen kişilerle yüz yüze anket çalışması gerçekleştirilmiştir. Katılımcıların % 72.4'ü erkek, % 26.6'sı kadındır. Yaş aralığı 17-63 olup eğitim durumlarına bakıldığında % 55.2'si üniversite, % 21.8'i lise eğitimi almıştır. Katılımcıların meslek grupları incelendiğinde % 26.4 ile memur kesim en yüksek oranı oluşturmaktadır. Katılımcıların % 8'i su ürünleri tüketmezken, % 92'si tükettiklerini belirtmişlerdir. Çalışmada, kişi başı ortalama yıllık su ürünleri tüketimi de 26.3 kg olarak tespit edilmiştir. Su ürünleri içerisinde % 94.6 oranla balık ilk sıradadır. Ordu ilindeki tüketicilerin %73.2'sinin günlük taze tüketimi tercih ettikleri belirlenmiştir. Su ürünlerini temininde çoğunluğunun (%79) perakende balık satış yerlerini tercih ettiği belirlenmiştir. En çok tüketilen balık türü olarak % 86.21 ile hamsi olup, kızartarak yiyenlerin oranı % 53.6 dır.

Anahtar kelimeler: Su ürünleri, tüketim alışkanlığı, anket, Ordu, Karadeniz

Abstract

In this study, it was aimed to put forward seafood consumption behaviors and socioeconomic of local people in Ordu Province which is located on the coast of Black Sea in 2012. Within this scope, face to face interviews were conducted with the randomly selected individuals. 72.4 % of the respondents were male whereas, 26.6% of the respondents were female. Ages of respondents were varied between 17 and 63. 55.2% of the respondents had university degree and 21.8% of the respondents had high school degree. According to the results regarding occupation of the respondents, government officials constitute the majority with a share of 26.4%. It was determined that 8% of the respondents do not consume seafood while 92% of the respondents indicated that they consume. It was also determined that yearly individual seafood consumption was 26.3 kg. Fish species was determined as top consumed seafood. It was also found that 73.2% of the respondents consume daily fresh seafood. 79% of the respondents also prefer seafood selling points. The most consumed fish species were anchovy which was generally preferred as fried by 53.6% of the respondents.

Keywords: Seafood, consumer behavior, face to face interview, Ordu, Black Sea.

Introduction

Seafood products are one of the most important food source for human being in terms of providing essential animal protein. Fish meat is a valuable food in terms of nutritional value and protein quality. Fish meat is also rich in fat

soluble vitamins and some elements such as iodine, phosphorus, zinc. Basically, fish meat composed of proteins, water and fats. In addition, inconsiderable amounts of carbohydrate, mineral substances, vitamins, enzymes and

hormones are in existence in the fish meat. Fish meat also includes essential amino acids (treonin, valin, lösin, izölösün, methiyonin, fenilalanin, triptofan, lizin, histidin, arginin) in the most appropriate proportions (Burt, 1988; Göğüş and Kolsarıcı, 1992; Oğuzhan *et al.*, 2009).

In Turkey of which three coasts were surrounded by the seas, there is insufficient seafood which has vital importance in human nutrition and fish consumption. Fish production in Turkey for the year 2011 was 703.544 tones. 61.41% of the production was marine fish species, 6.45% of the production was other seafood products whereas, 5.27% and 26.83% were inland products and aquaculture products, orderly (TUİK, 2011).

The production via commercial capture fishing is 485 939 tones and the production via marine and inland aquaculture is 167 141 tones of which 47% and 53% were originated from inland and marine, respectively (TUİK, 2011). Seafood per capita in Turkey is in the so low levels. Seafood consumption shows high intensity on the coastal regions (Dağtekin and Ak, 2007). Average yearly seafood consumption per capita in 2009 was 7.589 kg (TUİK, 2011). If the world (13.8 kg/year) and the European Union states (28.3 kg/year) average yearly seafood consumption per capita were considered, seafood consumption in Turkey is quite insufficient. Because of the abundance of small pelagic fish species such as anchovy, horse mackerel and bonito, it is known that seafood consumption in Turkey is generally on the Black Sea coasts. There is low consumption in the regions where there have no coast to the sea as a result of inadequate introduction and high prices of seafood products.

Seafood consumption is dependent on a variety of different factors including price, presentation of the products in the market, consumption habit and sociocultural facts (Girard *et al.*, 1998). Seafood products generally consumed freshly till last a few years in Turkey, but nowadays, seafood products are sold in the markets with some processing technologies such as cooling, freezing,

souse, canning, smoking, dried and pickled. New technologies are also getting common like canned, smoked seafood production as well as, freezing and cooling technologies (Atay *et al.*, 2000).

In this study, consumer behaviors for seafood products which have great magnitude of importance in terms of nutritional composition in Ordu province were investigated. This study is also the first study regarding the seafood consumption in Ordu province where has high seafood consumption and is a coastal city in the Middle Black Sea region.

Materials and Methods

In this study, it was aimed to define seafood consumption behaviors of local people in Ordu Province in 2012. With this purpose, face to face interviews were conducted with randomly selected 87 individuals. Target individuals for interviews were selected via random sampling methodology, and totally, respondents were queried with 23 questions which include socioeconomics, amount and frequency of seafood consumption, consumption styles and habits of respondents. The results from the questionnaire forms were evaluated via MS-Excel and SPSS statistical software programmers.

Results

According to the questionnaire results, 72.4% of respondents are male whereas, 26.6% of the respondents were female. Age interval was 17-63 in which respondents in 26 showed the majority. 55.2%, 21.8%, 10.3% and 11.5% of the respondents have bachelor's, high school, middle school, and elementary school degree, respectively whereas, 1.2% have no education. Government officials (26.4%) shows the majority among respondents, and self-employees, students and retired individuals werethe rest majority with the shares of 13.8%,11.5%,9.2%, orderly (Table 1). 8% of the respondents do not consume seafood while 92% of the respondents indicated that they consume.

Table 1. Socio-demographic dimensions of the local seafood consumers

Gender	N	%
Male	63	72.4
Female	24	27.6
Education level	N	%
No education	1	1.2
Elementary School	10	11.5
Middle School	9	10.3
High School	19	21.8
University	48	55.2
Occupation	N	%
Retired	8	9.2
Tradesman	7	8.1
Government official	8	9.2
Student	10	11.5
Teacher	15	17.2
Self-employed	12	13.8
Other	27	31

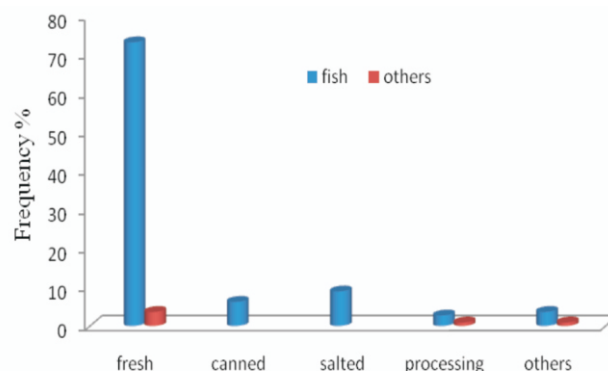
The main reasons of not consuming seafood products were determined as disliking fish and fish smell or the scarcity of the fish species that they would like to consume. Average yearly income levels of respondents were determined as 15300 TL while, 12000-24000 TL income interval composed the majority with a share of 49.4% (Table 2). It was also determined that

Table 2. Amount of seafood consumption and monthly income of respondents

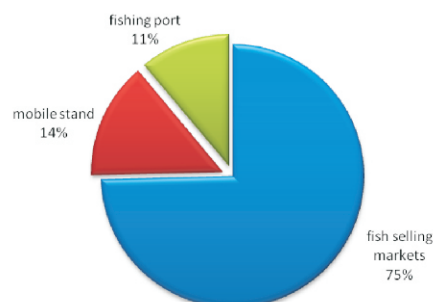
Seafood Consumption	N	%
Yes	82	94.25
No	5	5.75
Monthly household income of the respondent's (TL)	N	%
500 - 1000	12	13.8
1000 – 2000	43	49.4
2000 – 3000	15	17.2
3000 – 4000	7	8.1
4000 – 5000	7	8.1
5000 >	3	3.4
Weekly fish consumption	N	%
None	5	5.7
1 - 2 kg	47	54
2- 3 kg	24	27.6
3 - 4kg	10	11.5
4 kg >	1	1.2

average yearly seafood consumption per capita was 26.3 kg.

95.1% of the respondents indicated that they are aware of the nutritional quality. Besides, 66.6% of the respondents stated that they always fondly consume all kind of seafood products whereas 21.8% of the respondents rarely consume seafood because of its high price, and 11.6% of the respondents stated that there is no seafood consumption tradition in their family. Amount the all fish products, it was found that fish species (94.6%) composes the majority and the other seafood products (5.4%) composes the rest. It was also determined that 73.2% of the respondents in Ordu consume daily fresh seafood (Figure 1).

**Figure 1.** Seafood consumption preferences in Ordu.

79% of the respondents preferred to go fish selling markets to purchase because of the storage conditions. In addition to the fish selling markets, especially, anchovy and horse mackerel were preferred from the mobile stand (%11). It was determined that respondents (%10) who look for cheaper and more fresh fish, prefers fishing port (Figure 2).

**Figure 2.** Preferred destination for seafood supply.

There is a wide range of criterions which show difference in the selection of fish species or supply and the freshness among this criterions is the most important one for respondents (Table3). Besides, 65.8% of the respondents stated that they have no trouble in finding the fish species, but 25.7% of the respondents are sometimes and 8.5% of the respondents are generally in trouble while finding the fish species.

Table 3. Rates of criterions in seafood preference

Criteria	N	%
Freshness	76	54.7
Pleasure of taste	26	18.7
Price	26	18.7
Species	5	3.6
Common	5	3.6
Appearance	1	0.7

Anchovy got the biggest share with 86.21% whereas meagre got the smallest share with 2.3% among the consumed fish species during the year. Data regarding the preferred fish species was given in Figure 3. The reason why anchovy was consumed in high amounts is that it is boneless, easily eatable and cheap price. Separately, 68.3% of the respondents indicated that they consume anchovy in each month of the year if there is such possibility. In addition, 63.4% of the respondents did not prefer marinated and conserved with souse anchovy consumption types as alternatives to the fresh anchovy consumption.

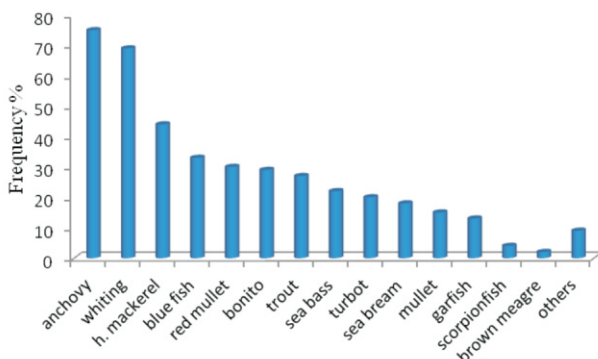


Figure 3. Seafood consumption preferences.

The respondents were also asked that “Who cooks fish at home?”, and 68.3% of the respondents indicated that housewife cooks, 26.8% of the respondents indicated that the man of the house cooks while 4.9% of the respondents indicated that household cooks. Pan fried method was the most preferred cooking method with 53.6% rate (Figure 4).

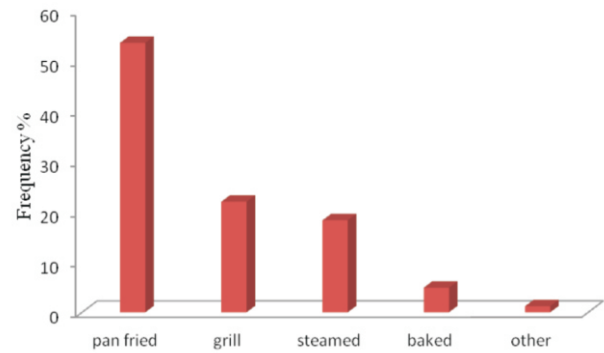


Figure 4. Cooking preferences.

Discussion

In the studies conducted to find out the amounts of seafood consumption per capita in Turkey, Yüksel *et al.*, (2011) found 4.1 kg in Tunceli, Erdal and Esengül, (2008) found 13 kg in Tokat, and Çolakoğlu *et al.* (2006) found 18 kg in Çanakkale. In this study, seafood consumption per capita in Ordu (26.3 kg) is almost three fold of Turkey's average and the same of European Union's average because of the high marine capture pelagic species production and the traditional fish consumption in the Black Sea.

In the previous studies, anchovy species was determined as the highly consumed species (% 33.2, Yüksel *et al.*, 2010, % 48, Oğuzhan *et al.*, 2009, % 65, Erdal and Esengül, 2008), and in this study, share of the anchovy among all consumed seafood species was found as % 86.2. 73.2% of the respondents consume daily fresh seafood in Ordu. As in this study, frying and grilling cooking styles were the most preferred ones (Yavuzcan *et al.*, 2010; Oğuzhan *et al.*, 2009; Erdal and

Esengül, 2008; Çolakoğlu *et al.*, 2006).

94.6% of the consumed seafood products was composed of fish species in Ordu. The Black Sea is not so rich in terms of other seafood products. The Mediterranean mussel (*Mytilus galloprovincialis*) is the only consumed crustacean species. From the interview results, it can be said that local people have no tradition in consumption of the Mediterranean mussel, and there is no trade of mussel in the region.

In this study, the respondent with average income level (1000-2000 TL) composes the majority in fish consumption with a rate of 49.4%. It was thought that cheap price and widespread of anchovy and horse mackerel in the Black Sea plays important roles in providing the protein needs of average income individuals. Fish selling points are the most preferred places for seafood purchasing with a rate of 79%.

Although, awareness among local people for hygienic and more healthy sale points is increasing day by day, there is a considerable amount of seafood products are sold via mobile stands. The results regarding the criteria in fish preference of consumers, freshness preferred as the first option (%54.7). Local people have tradition on fresh fish consumption from past to now which was also supported by the results from interviews.

However, housewives do not prefer cooking fish because of its effective smell in the house while housewives are currently the main cooks of seafood (68.3%). But, in the future, with the women participation into the business life may change the main cooker as man of the house.

Anchovy is the most captured species in a short term winter season in the Black Sea. The great amount of capture processed in fish flour and fish oil factories, it is intensively caught in a short period. This great amounts sent to fish flour and fish oil factories supports the low consumption levels per capita. Therefore, it is

necessary to increase the number of hygienic cold storages to consume this species during the season. Furthermore, longer storage and conservation methods should be applied and campaigns should be conducted to increase tendency in consumption of anchovy. Besides, during the abundant season of anchovy, cold storage chains should be established to increase fish consumption in rural areas.

It is necessary to define consumer behaviors, supply and demand of seafood products via questionnaire studies. According to the results of this study, it is necessary to increase awareness and consumption of seafood products. Commonly called expression “three sides of Turkey surrounded by seas” should be considered in reality by increasing the amount of seafood consumption per capita at least to the European Union levels.

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