

Su Ürünleri Toptancı Hallerinde Yaşanan Sorunlar ve Çözüm Önerileri: Antalya İli Örneği

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Özet: Türkiye; su kaynakları yönüyle hem avcılık hem de yetiştiricilik açısından son derece uygun koşullara sahip iken, su ürünleri sektörüne yeterli önemin verilmemesi nedeniyle halen özellikle pazarlama aşamasında karşılaşılan sorunlarla mücadele etmektedir. Bu sorunlardan birisi olan dağınık pazarlama şartları; pazarlamanın fonksiyonlarından olan depolama, nakliye gibi aşamalarında da bazı olumsuzlukları beraberinde getirmektedir.

Oysa Su Ürünleri Toptancı Halleri; Pazarlamada üretici ile tüketici arasındaki en kısa yolu gerçekleştirebilmek, tam rekabet piyasasının oluşumunu ve sürekliliğine katkıda bulunmak, eksik piyasa şartlarını ortadan kaldırmak, fiyatların tam rekabet piyasasında oluşumunu sağlamak, kayıt dışılığı önleyebilmek, hem üreticileri hem de tüketicileri desteklemek, ürünlerin kalite, standart ve hijyen çerçevesinde son tüketiciye ulaştırılmasını sağlamak amacıyla kurulmuştur.

Ancak halen Tarım ve Orman Bakanlığı tarafından Hal kanununda bazı düzenlemeler yapılmasına rağmen, sorunlar devam etmektedir. Bu makalede su ürünleri Toptancı hallerinde devam eden sorunlar Antalya ili örneği ile değerlendirilmiş, sözkonusu sorunlara çözüm önerileri getirilmeye çalışılmıştır.

Anahtar Kelimeler: Su ürünleri, pazarlama, toptancı halleri.

Problems and Solution Proposals Living In Wholesalers Of Water Products: The Case of Antalya Province

Abstract: Although Turkey has very favourable conditions in terms of both fishing and aquaculture in terms of water resources, it is still struggling with the problems encountered especially at the marketing stage due to the lack of sufficient importance given to the aquaculture sector. Disorganised marketing conditions, which is one of these problems, brings along some negativities in stages such as storage and transport, which are among the functions of marketing.

Although, Fisheries Wholesale Markets; In marketing, it is possible to realize the shortest path between the producer and the consumer, to contribute to the formation and continuity of the perfect competition market, to eliminate incomplete market conditions, to ensure the formation of prices in the full competition market, to prevent informality, to support both producers and consumers, to ensure that the products are produced within the framework of quality, standard and hygiene. It was established to ensure delivery to the end consumer.

However, although some regulations have been made in the Market Law by the Ministry of Agriculture and Forestry, problems continue. In this article, the ongoing problems in seafood wholesale markets have been evaluated with the example of Antalya province, and solutions to these problems have been tried to be suggested

Key Words: Fisheries, Marketing, Wholesale Markets

1. Material and Method:

1.1. Material

The main material of the research consists of the legislation regarding Wholesale Markets and systematic interviews conducted in this context. For the research, published articles, reports and statistics on the subject were used, as well as the latest developments regarding the situation were tried to be obtained by internet scanning and the working reports of the relevant Ministry and Directorate. In addition, information was tried to be collected through mutual meetings and correspondence with various organizations and institutions.

In this study, consumers as well as producers were interviewed, and the basic legislation regarding the wholesale market order, which is being implemented by establishing the "legal basis, administrative structures and implementation mechanisms" for the establishment of market order in aquatic products and effective monitoring of the full competition market, was examined.

In this context, face-to-face meetings were held with the Fisheries Cooperatives and Fisheries Producers Associations in Antalya, and their opinions were received on the marketing conditions of the Fisheries Wholesaler markets.

1.2. Method

The research was mainly based on literature study and legislation scans. However, it was aimed to

enrich the study through surveys, and for this purpose, in addition to the legislation, taking Antalya as an example, information was obtained from consumers through a survey and an attempt was made to evaluate it.

As a result of these studies, approximately 200 questionnaires were prepared, determined by simple random sampling method, with families residing in Antalya center, based on TÜİK records, and 198 questionnaires were evaluated.

Then, the current structure of wholesale markets in aquatic products in Turkey was examined and the problems were revealed, and comparisons were made regarding what could be done on a legal basis and restructuring of these organizations in terms of harmonization with the EU. As a result of these, it was investigated how to provide an organization similar to the EU and suitable for Türkiye's conditions.

2. Introduction

Fishery Products Wholesale Markets are permanent wholesale markets where wholesale purchase and sale of seafood takes place and the price is determined according to supply and demand (Yılmaz and Yılmaz, 2002: 292). Through these markets, seafood products reach the final consumer within the scope of healthy, hygienic and food safety standards (Coşkun and Tunalıoğlu, 2015: 84).

Wholesale Markets; It is an indispensable trade center of the region and the country's economy with the duty income it provides to municipalities, the food security it provides for producers and consumers, its contribution to employment, input to industry, and foreign trade income (Hadimli and Bulut, 2004).

Decree Law No. 552 dated 1995 plays an important role in the establishment of Wholesale Markets in our country (Çetin, 2009). Because in Decree Law No. 552, in general; The principles regarding the purchase, sale and transfer of products and the establishment, operation, management and inspection of wholesale markets and marketplaces are specified. This decree is built on three basic elements: the collection of products primarily in markets; It is in the form of ensuring the formation of the most appropriate price under free competition conditions and the supervision is largely carried out by municipalities (Kınıklı et al., 2019).

In Turkey, fisheries trade is carried out in Fisheries Wholesale Markets under the control of municipalities with various legal regulations.

Fisheries Wholesale Markets, especially in provincial centers with coastal lines and crowded populations, carry out important commercial activities. According to researches; In our country, a very small proportion of food is delivered to consumers through channels other than markets (Sezgin and Gül, 2019).

In this context, the role and importance of markets in the sector can be briefly stated as follows; Seafood Wholesale Markets are institutions that have important functions in ensuring that the product flow between the producer and the consumer runs smoothly within the free competition market, balancing the market prices, preventing informality, acting as the guarantor of the producers, and ensuring that the products are released to the market within the framework of the desired quality, standards and health rules (Çetin, 2009). The infrastructure of wholesale markets for aquaculture products is very important for both producers, brokers and consumers (Yılmaz et al., 2014).

However, although some regulations have been made in the Market Law by the Ministry of Agriculture and Forestry, insufficient domestic demand and problems in the sector continue in the provinces that are wholesalers of aquatic products. In this study, it was aimed to reveal the problems and to propose solutions to the situation in question.

3. Results and Discussion

Although our country has increased aquaculture production, especially through aquaculture production, and is both an exporter and importer of aquatic products, it is still far behind other countries in per capita consumption. As a matter of fact, as of 2020, per capita consumption in the world is 20.2 kg, while it is 24.3 kg in the EU, it is 7.3 kg in Turkey (FAO, 2022).

Data is of great importance in marketing. It must be received promptly and the data must be adequate. Even issues related to production and consumption consumer trends (Yılmaz et al., 2014).

In this research, where the reasons for this situation were sought, consumers' purchasing and fish consumption preferences were examined. In the study, it was determined that the most important factors affecting consumers' seafood consumption were income, education and hygiene status, respectively.

In this context, first of all, since the income level and fish consumption are directly proportional, the fish

consumption preferences of the consumers were examined according to the income levels and it was determined that more fresh products were consumed with approximately 91% (Table 1). In the research, it was determined that there is a statistically significant relationship between consumers' aquatic products consumption according to their income groups.

According to the research, the level of education is extremely effective in fish shopping and consumption types, and as the level of education increases, the consumption of processed products increases. A significant relationship was found between consumers' education levels and consumption amounts.

Table 1. Fish consumption patterns of families according to income status

Income level*	Fish consumption patterns					
	Fresh	%	Processed	%	Total	
1	56	31.1	0	0	56	
2	60	33.3	3	16.6	63	
3	34	18.9	6	33.3	40	
4	30	16.6	9	50.0	39	
Total	180	100.0	18	100.0	198	

*1. 0-24.000 2. 25.000-50.000 3. 51.000-75.000 4. 76.000+

It has been revealed that product price and consumer tastes and habits are important factors in purchasing. However, 70.8 % of the consumers emphasised that the products were fresher in wholesale markets compared to the neighbourhood markets. However, consumers reported that they

mostly shop from the following businesses since wholesale shopping is done in wholesale markets (Table 2). As it can be observed from Table 2, as the education level increases, it is observed that the purchase is made from markets or fish market.

Table 2. Place of Fish Purchase of Families According to Income Level of Consumers

Income Level*	Neighbourhood market		Fish Market		Fisherman		Supermarket		Wholesale		Total n
	n	%	n	%	n	%	n	%	n	%	
1	25	41.6	15	30.0	8	25.0	2	4.9	6	40.0	56
2	17	28.3	22	44.0	10	31.2	13	31.7	1	6.6	63
3	9	15.0	7	14.0	8	25.0	12	29.3	4	26.6	40
4	9	15.0	6	12.0	6	18.8	14	34.1	4	26.6	39
Total	60	100.0	50	100.0	32	100.0	41	100.0	15	100.0	198

*1. 0-24.000 2. 25.000-50.000 3. 51.000-75.000 4. 76.000+

Again, as seen in Table 2, as the income level increases, the rate of shopping from fish market and supermarkets increases. Those whose income level is minimum wage mostly buy from the neighbourhood market and from the wholesale market by sharing a crate with their relatives since it is cheaper.

In today's economic conditions, 79,8% of the consumers stated that fish prices are an important factor in their shopping, prices are lower in wholesale markets, and some consumers (5,6%) go to the market early in the morning and buy products by crate.

While analysing the consumption preferences, when consumers were asked whether they prefer fish from aquaculture or fish from hunting, 77,2% of them stated that it is not important by emphasising the current economic conditions. However, in previous studies, it is known that consumers are

cold towards fish from aquaculture (Saygı et al., 2006, Orhan et al., 2010, Yılmaz et al., 2014). Therefore, it is believed that this situation is a positive situation for the aquaculture sector.

On the other hand, when consumers were reminded of the importance of hygiene conditions, 60.1% of them argued that hygiene conditions are very important. While 56 % of the consumers think that hygiene conditions are better in wholesale markets, 46,4 % of them stated that there is not much difference with the neighbourhood markets.

In the research, when the level of participation of the consumers to the opinions on the effect of full membership to the EU on aquaculture products and food safety within the scope of harmonisation with the European Union (EU) is examined, the rate of consumers who say that food safety in aquaculture products will definitely increase if we enter the EU is 35,3 % (Table 3).

Table 3. Consumers' level of participation in the opinions on the effects of full membership to the European Union on aquaculture and food safety

Income level*	Level of participation											
	I do not agree at all		Disagree		Undecided		I agree		Absolutely agree		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
1	-	-	1	12,5	1	5,0	3	7,9	11	8,6	16	8,1
2	1	100,0	3	37,5	7	35,0	10	26,3	42	32,5	63	31,8
3	-	-	4	50,0	9	45,0	16	42,1	55	42,6	84	42,4
4	-	-	-	-	3	15,0	11	28,9	21	16,3	35	17,7
Total	1	100,0	8	100,0	20	100,0	38	100,0	29	100,0	198	100,0

*1. 0-24.000 2. 25.000-50.000 3. 51.000-75.000 4. 76.000+

Accordance process with the European Union, as in many areas of the field, in aquaculture area reorganization came on the agenda on these days in the fisheries sector, strengthening the organization as well as the Wholesale Markets that the products will be released is expected to be improved. Thus; the protection of species, raising the living standards of fishermen and produces, and consumers with fish product processors are aimed, to find a product with regular and reasonable price.

In the research conducted, it was determined that one of the important factors affecting food safety is that there is no wholesale fish market in most of our provinces and 60 % of the existing fish markets are

located far from both the consumer and the sea (Table 2). Considering the freshness assessment of the aquaculture products brought to the market, it is important that the ideal installation and activity areas for fish markets should be on the seashore (Erdoğan and Düzgüneş, 2006). Especially in metropolises, it is noteworthy that fish markets are established in areas far from the seashore due to the fact that land in coastal areas is both limited and more valuable than inland areas (Emiroğlu et al., 2017). As can be seen in Table 3, while there are 13 fish wholesale markets in Turkey, fish wholesale markets in coastal cities such as İzmir, Bursa, Samsun and Çanakkale were not established by the sea (Table 4).

Table 4. Wholesale of aquaculture products in Turkey

Wholesales	Adreses
Istanbul Metropolitan Municipality Aquaculture Wholesale	Beylikdüzü/Gürpınar, İstanbul
Kemal Balıkçılık İhracat Ltd. Şti. Aquaculture Wholesale Centre (Special Hal)	Sancaktepe, İstanbul
Ankara Metropolitan Municipality Aquaculture Wholesale	Yenimahalle, Ankara
İzmir Metropolitan Municipality Aquaculture Wholesale	Kaynaklar/Buca, İzmir
Samsun Metropolitan Municipality Aquaculture Wholesale	Kıran/İlkadım, Samsun
Bursa Metropolitan Municipality Aquaculture Wholesale	Nilüfer, Bursa
Kocaeli Metropolitan Municipality Aquaculture Wholesale	Başiskele/Kocaeli
Kocaeli Metropolitan Municipality Ereğli Fisheries Market	Karamürsel/Kocaeli
Çanakkale Municipality Aquaculture Wholesale Centre	Köprübaşı/Çanakkale
Trabzon Municipality Aquaculture Wholesale Centre	Devlet sahil Yolu/Trabzon
Ordu Municipality Aquaculture Wholesale Centre	Kumbaşı/Ordu
Bandırma Municipality Aquaculture Wholesale Centre	Bandırma/Balıkesir
Rize Municipality Aquaculture Wholesale Centre	Dolgu alanı/Rize

Source: Ministry of Agriculture and Forestry, 2024. <https://www.tarimorman.gov.tr/içerikler/>

As it is known, food safety is as important for aquaculture as food security. Food safety means the processing, preparation and storage of food in a way that minimises the risk of an individual becoming ill from foodborne diseases (Santacruz, 2016). Food safety is also expressed as complying with the necessary rules and taking precautions at all stages from production to distribution of food in order to ensure healthy food production and

includes the concepts of healthy, healthy and healthy food (Giray & Soysal, 2007: 485). In this context, it should be taken into consideration that if aquaculture products must pass through wholesale markets until they leave the producer and reach the consumer, the markets have a key role in ensuring food safety

As a result of all these outputs, how should an ideal aquaculture wholesale market be? The question was tried to be answered.

However, the problems experienced in the provinces where wholesale markets of aquaculture products are located are caused by the problems arising from the sector. As a matter of fact, some of these problems are caused by the location of most of the existing wholesale markets far from the sea.

According to research results, because of the problems faced, fish markets, should be positioned near the sea as well as foreign countries, in order to benefit from both the seawater and environment. Otherwise, offshore situations contains many problems. As a matter of fact, based on observations made in research, in marketplaces away from the sea a significant portion of the fish that caught, is not brought to the market, are sold even as illegally. Failure to keep records of sales outside the fish market or reported missing to the existing sales, as it adversely affects the economy of our country, by looking at the allocated quota of fishery statistics are also to give rise to error. In the study, moving away from the city center and shopping opportunities increased the sales trend by not entering into fish market, moving away from the sea the pier, unloading and transportation processes brings additional costs that have been identified as the cause of all this.

For having a problem free auction especially on big capacity marketplaces during the auction, products that came from various times should be taken to different halls and in order to prevent unfair competition and confusion between present or absent customers auction hall must have separate receive and discharge doors. In addition, large enough icehouses should be made inside of each marketplace, even away from the auction hall, should be positioned close to the exit state.

According to the survey results; high ceilings and fully closed auction halls are suitable for cooling, products that came by the sea route, transferred in to the auction hall or to the storage tape systems or used forklift on pallets, providing height difference (20-25 cm) to ensure the product from the ground floor in auction hall and storage space, the auction room and other parts of the area which products will be put to be covered with suitable material and easy to clean the floors for disinfection, restriction of access to the auction hall and other parts, as other countries, the participants in the auction, an auction monitoring lodge is recommended for people outside.

Therefore, inputs and outputs should be fully controlled, pre-sale and after sale fish entries must be recorded and must be controlled. Otherwise, if the fish market products transported to other cities that can be said that the market registration of the output document made duplication of records. On the other hand, work with the municipalities and with the ministry of accrued fees and levies, the high rate of the taxes (KDV), have been found to encourage fishermen to informality. In particular, the is also complaining about the high rates of tax (KDV). In the absence of many public institutions involved in the issue, instead of spot checks than continuous checks by the Ministry of Finance, problems are exacerbated.

Lowering, overlapping and transportation operations should be done with the machine as possible in the Marketplace.

Transportation vehicles should be equipped with a structure that capable of maintaining a temperature of the product form which is thermally insulated and sealed casing, that should be capable of storing fish blood and drainage water from the melted ice. Transportation by open vehicles, are not allowed to enter to marketplace of all kinds of products with a risk of contamination.

The form of the auction and the place of the auction are essential for fish market and is very important. In fact many problems observed in the auction, were found to make no auction. Therefore, reviewing or even re-determine the organization that carries out the auction and forms of auction is necessary. In this sense, according to studies, as it is in the past that will do a great benefit if the organization of the auction is Fish and Seafood Wholesale Department.

Because of all these problems experienced in the Turkey's marketplace auctions, fish auctions as in the developed countries, should be done through either fish samples or on the internet, auction halls should be ensured to anyone outside of the official receipt. When the auction finished, marketplace should be emptied, cleaned and made available to acceptance to products again.

In this study, sales carried out on samples as well as abroad products coming to the market taken into cold storage by order, labeled, and after the registration sale process is strongly recommended. In this case, those who participate in the auction, will be able to participate in the auction upon payment of daily coverage. However, in this system, it is necessary to have at least two separate storages.

After the announcement of the quantity and characteristics of the products in the form of the sale by auction officials, randomly selected sample box will be brought to hall, unveiled for all to see on a moving platform and stock sales will continue until the end. Sales charge buyers out of the market for products which are sold to pay, if the buyers stop buying the product, refunds guarantee excluded, and will be recorded as the income to municipal budget. The few times that do not comply with the rules, will not be participating in the auction in case of recurrence of the behavior.

However, in order to conduct this sales system of the fish markets, weight and quality standards should be introduced. Penalties should be developed to ensure these standards. Sales will be made on behalf of producer or broker, buyer tradesman by the way, will not pay the required fee for the products belong to that person in the auction and considered that the sale will be made under this standard of value in a short time will be automatically provided.

If this is done over the Internet is perceived as a sales via the Internet at the above methods in dealing with fisheries and artisan producers in Turkey, the vast majority fail to make full use of the internet. Over time, evaluating that this will change, and should be prepared to taking into account in particularly used in the framework of exports.

As in all industries, trained and experienced workers are required in the fisheries sector. In the regulation directorate which will be renewed, fish market manager in the context of this unit and unit chiefs should require to be elected necessarily trained in aquaculture experts from experienced people. The technical staff number should be determined by the work capacity and jobs. Because the acceptance of products, auction and loading, the lack of experienced and knowledgeable staff get things more difficult, that cause significant economic losses.

At Fish markets buyer and seller (broker) tradesmen, producers, in-market carrier, transporter, cleaning and security staff providing to ensure the circulation in the state municipal employees should do the duty. Sector employees, must be trained through in-service in their fields for food and human health, environmental sanitation and human relations. Even if such training should be repeated in periods and participation should be ensured.

Criminal penalties should be applied for breaking the rules after training, and again if the broker selling the product, trades should not be allowed to

purchase the product; carrier and shipper going to be banned from work penalties should be applied.

Cleaning for health is too important and indispensable in the fish market. Fish markets which failed to achieve hygiene conditions, fishes and hence to human health thinking that there may be drawbacks to compromise of staff which is passed through contact with food that regular health checks required. Despite that the healthy product preserve and sales infrastructure of the existing markets and by the great importance of hygiene, all three markets that examined has not been determined to comply with hygiene rules.

Cleaning rooms should be closed in terms of health and hygiene, animals such as birds, dogs and cats should not be allowed in the examined fish markets, employees to wear special clothes and boots should be mandatory. On fish market, clean fresh water should be used that will not contaminate the area to be cleaning. Environment should be disinfected after each sale, and waste water should be collected in the disinfected pool. Garbage bins must be outside the market than in the sales area. Wooden crates and wooden pallets are commonly encountered in all three markets, rather than disposable Styrofoam boxes made of washable or reusable plastic crates and pallets that should be used. After passing from the washing and disinfection of plastic boxes for controlling the re-use of them, there should be a wash system in the market and the operation should be carried out by officials.

Every fish marketplace must have a freshness and quality control laboratory, while workers must be and expert on the subject in this laboratory (fishery engineers, food engineers, etc.). Decisions such as, merchantability or disposal of the product, must take place within the jurisdiction of this unit.

Vehicles used in the transport of sea products, equipped that can maintain the proper temperature of the product form, properly heat-insulating, which must be closed cabinet or refrigerated vehicles. If ice is used to cool the product, drainage system must be found to avoid contact with the product from the water formed by the melting ice. In case of additional ice transporting with the same vehicle, the product should be provided and ice must be found in sealed containers and hygienic carrier to avoid contact with water caused by ice melting. The interiors of the vehicles of transport has been constructed so as to not adversely affect the fishery products must be easy to clean and disinfect.

In order to protect the quality of the product, sufficient quantity and quality of ice should be

produced or must be obtained and stored in hygienic covers. Water and ice used in outlets, must have drinking water criteria.

Exhibited or offered for sale of fishery products must have a label indicating the product's name and price. According to the marketplace law, on consumer labels, deceptive, misleading, phrases and clauses shall not be kept.

For keeping records correct and organized in the fish markets as well as other countries, all of the products', species and quantities must be determined. However, the amount identified in Turkey are made in, casing (boxing), pieces, pairs and kilograms. For example, bluefish by number, bonito and large bonito are doubles and other products (sea bream, sea bass and turbot etc.) identified as boxed in kilograms. Later, these products are reflected in the statistics evaluated in kilograms by the multiplier value. Weight (kg) values can only be used to prepare records and statistics are regularly reported to the Turkish Statistical Institute and The Provincial Directorate of Agriculture.

Major mistakes could be made in these processes. Some fishes (turbot etc.) weight determination, was completely over estimated values, while other determinations is made in boxes. By box detected products, weight is determined kg average value of the product and these values may vary according to the species. For example, despite the determined maximum box weight of 12 kg for the Ministry of Agriculture, deviations may become because there is not a standard kg for the products that come to Marketplace. Products that could not identified for any reason does not enter into the registration. Furthermore, although within the scope the EU's Common Fisheries Policy, product traceability is not available.

4. CONCLUSION

In Turkey, the trade of aquaculture products is carried out in the wholesale markets of aquaculture products under the control of municipalities with various legal regulations. However, some of the problems experienced in the wholesale markets of aquaculture products have not been solved yet. As a matter of fact, one of these problems is disorganized marketing requirements; which causes several problems in fisheries, aquaculture, processing and quality control, also brings some disadvantages such as storage, transport stages of marketing.

On the other hand, the distance of wholesale markets from the coast affects marketing efficiency

and food safety and increases costs. In the research conducted, it was determined that 60 per cent of the existing aquaculture wholesale markets are located far from both the consumer and the sea. In the study, it was determined that this situation also increases informality. Underreporting of current sales has a negative impact on the economy of our country and also causes errors in quota allocations based on catch statistics.

For this reason, it is necessary to make a new framework regulation that includes how the auction will be held in fish markets, who can participate, how the records can be kept, and all markets should be managed according to the provisions of this regulation in terms of operation. Because the current "Regulation on Wholesale and Retail Sales Places" in force cannot respond to these needs, and for this reason, there is still a confusion of authority and responsibility.

The deficiencies in the existing fish markets cause various negativities, especially in terms of food safety, and this situation affects domestic consumption as well as our country's exports because we cannot meet the standards. In every fish market, there must be a freshness and quality control laboratory, and those working in this laboratory must be experts (aquaculture engineer, food engineer, etc.). Within the powers of this unit, decisions such as the saleability or destruction of the product should be included.

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