SIMILARITIES AND DIFFERENCES IN THE HABITS OF FISH CONSUMER IN THREE CITIES OF THE REPUBLIC OF SRPSKA

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SLIČNOSTI I RAZLIKE U NAVIKAMA POTROŠAČA RIBE U TRI GRADA REPUBLIKE SRPSKE

Apstrakt

Anketno istraživanje percepcije i navika potrošača u kupovini i potrošnji ribe provedeno je u tri grada Republike Srpske: Banja Luka (BL), Prijedor (PD) i Bijeljina (BN) na gradskoj tržnici, u ribarnici i u gradu. Anketom je obuhvaćeno po 39 ispitanika u BL i PD te 30 ispitanika u BN. Cilj rada je bio analiza kupovnih navika potrošača ribe u tri najveća grada Republike Srpske. Polna struktura ispitanika različita je po gradovima, u BL najviše je anketiranih osoba ženskog pola (56,41%), u PD je više ispitanika muškog pola (51,28%), dok je u BN struktura ispitanika bila podjednaka (50:50%). Dominantan je srednjoškolski nivo obrazovanja ispitanika (BL 53,8%, PD 33,3% i BN 56,7%). U sva tri grada dominantno mjesto kupovine ribe je supermarket, dok se najmanje ribe kupuje od ribolovaca i na ribnjaku. Između gradova postoji razlika u danima najčešće kupovine ribe, što je potvrđeno i χ^2 testom ($p<0,05$). U BL se najčešće kupuje riba utorkom, u PD srijedom i petkom, a u BN subotom. Statističkom analizom je utvrđena značajna razlika između posmatranih gradova u pogledu količine kupljene ribe po jednoj kupovini. Ispitanici po gradovima smatraju da je kvalitet ponuđene ribe na tržištu zadovoljavajući i najveći broj ispitanika je na skali od 1 do 5 dalo ocjenu 4. Ispitanici u sva tri grada smatraju da je cijena ribe na domaćem tržištu visoka. Postoji statistički značajna razlika u pogledu preferencije potrošača po gradovima prema kupovini ribe domaćeg porijekla.

Ključne riječi: anketa, navike potrošača, konzumacija ribe.
Keywords: survey, consumer habit, fish consumption

INTRODUCTION

Consumption, and thus the production of fish in the world is constantly growing. According to FAO (2013), in 2011 the production of fish in the world has reached 156 million tons, i.e. a value of 135 billion USD. Out of the total amounts of consumption fish available to consumers, in fish market in the world, 2/3 refers to the caught fish from open waters, and 1/3 on the fish farming. The annual average in the world is 18.9 kg of consumed fish per capita. In Europe, it is 22 kg, in B&H, it is 5.9 kg (FAO, 2011) and in the Republic of Srpska, it is 6.2 kg per capita (National Bureau of Statistics, 2011).

When buying fish, consumers have different motives, habits and attitudes. The extensive researches have been done in the world on the subject of habits and consumer attitudes toward fish consumption, but in B&H almost none. Cluster regression analysis of consumer attitudes of fish consumers in Greece showed that the choice meal of fish is highly dependent on occupation, level of education and number of children, and poorly dependent on the level of income and sex of the respondents (Batzios et al., 2005). Gaviglio and Demartini (2009) surveyed the attitudes of consumers in Italy to wild-caught fish and farm-raised fish, and found that there is a correlation in terms of occupations, the value of purchase and place of purchase (shop type). Research conducted in Belgium (Verbeke et al., 2005), in addition to confirming that the majority of consumers considered fish as healthy food, confirmed that fish is eaten more by women and older consumers (>40 years), and that younger consumers are better informed about the nutritional characteristics of fish. Fay-Komilus et al. (2012) surveyed the attitudes of consumers of fish in Malaysia and their commitment to purchase fresh fish is mostly defined by taste, freshness and structure of fish. Most of them eat fish once a week or once a month, much more in restaurants than at home. Verbeke and Vackier (2004), as the main factors for the purchase of fish in Belgium identified the taste and image of healthy food, and the main factors for not buying fish are bones and price. Smederevac-Lalic et al. (2013) surveyed sellers of fish in Belgrade and based on their responses, the consumer's decisions on buying fish are affected by price, type and size of the fish. 63% of fish that they sell comes from ponds, and 23.7% of the fish is caught in the Danube. For B&H, only general attitudes of consumers on food consumption (which includes fish) can be found, which showed that the commitment to purchase food is influenced mostly by taste, health reasons, convenience in purchasing and cost, and less by suitability of preparation, ability to control weight, mood and ethical principles (Stojanović et al., 2014).

MATERIAL AND METHODS

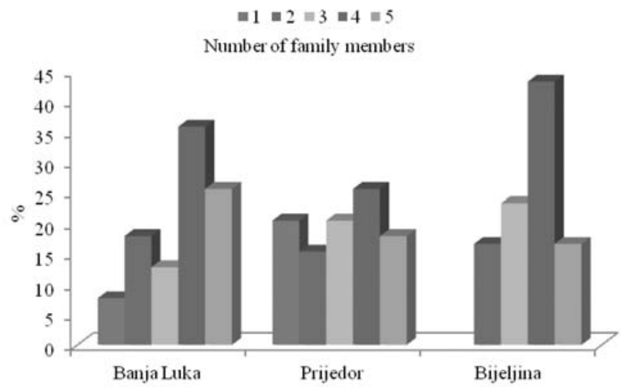
Field research was carried out through the survey („*face to face*") of consumers in three biggest cities of the Republic of Srpska: Banja Luka (BL), Prijedor (PD) and Bijeljina (BN), with the objectives of determining buying habits and perceptions in fish consumption. The survey was carried out through the structured questionnaire consisting of 25 questions, out of which 2 were open and referred to the expression of views on increasing the consumption of fish and the dominant reason of buying fish of domestic origin. The questionnaire consisted of three parts: socio-demographic data of respondents, motives and buying habits of consumers of the fish in the three largest cities of the RS and characteristics of supply and consumer preferences of fish in the domestic market.

The questionnaire enabled obtaining indicative data on buying habits of domestic consumers of fish. The survey results were analyzed by using analysis of variance and nonparametric tests by using the statistical package SPSS-17.

RESULTS AND DISCUSSION

Socio-demographic indicators

Gender structure of respondents is different in the cities, in BL, the most of the surveyed are females (56.41%), in PD there are more male respondents (51.28%), while in BN, structure of the respondents was equal (50% male and 50% female). In all three cities, in terms of completed school, secondary level education of respondents was dominant (53.8% BL, 33.3% PD and 56.7% BN). In all three cities, in terms of the number of family members (Graph 1), the respondents mostly live in a family of four (35.9% BL; 25.6% PD; and 43.3% BN).



Graph 1. Frequency of family members

The largest number of respondents is in the payment range from 500 to 1.000 KM in PD and BN, while the largest number of respondents has a monthly income of less than 300 KM in BL, which can be linked with the age structure of the respondents. The largest number of respondents (35.9%) in the city of BL was younger than 25 years. In PD, the largest number of respondents was older than 25 and younger than 36 years (28.2%), also a considerable proportion of respondents is in the age group of older than 55 years (23.5%). In BN, the dominant share of respondents aged from 46 to 55 years (40%).

Motives and consumer purchasing habits

In BL, the fish is usually purchased on Tuesdays, in PD on Wednesdays and Fridays, while in BN on Saturday, and the statistical significance was confirmed by χ^2 test ($p<0.05$). In BL and PD consumers usually buy fish on market days, whereas this is not the case in BN. A significant difference exists in volumes purchased in these three cities ($p=0.028$). By using the Tukey test, statistically significant difference was showed ($p=0.021$) in the quantities of bought fish from the respondents from BL and BN, while the difference showed in other combinations is a result of incidentally variation.

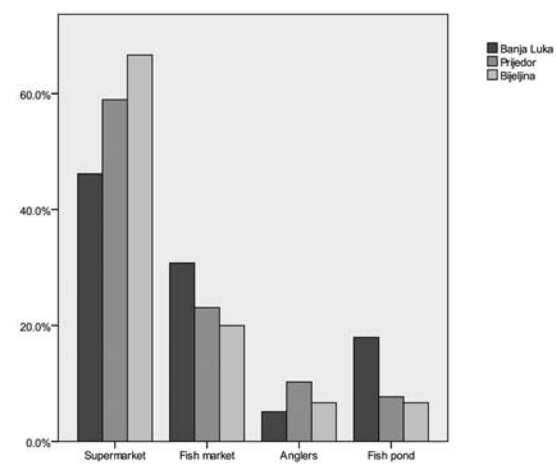
Looking at the impact of the location of the respondents on the preferences of buying fish from domestic producers, χ^2 test showed statistically highly significant difference ($p=0.009$) in the purchase of fish from domestic and foreign producers. It was shown that consumers in BL mostly prefer to purchase fish from local producers, while it is not the case in PD. It may be noted that the location and preference of buying fish are highly dependent features, i.e. that the location has an impact on the decision of the customers in terms of favouring fish of domestic origin in relation to imported fish.

Table 1. The dependence of buying fish from domestic producers on the respondent locations

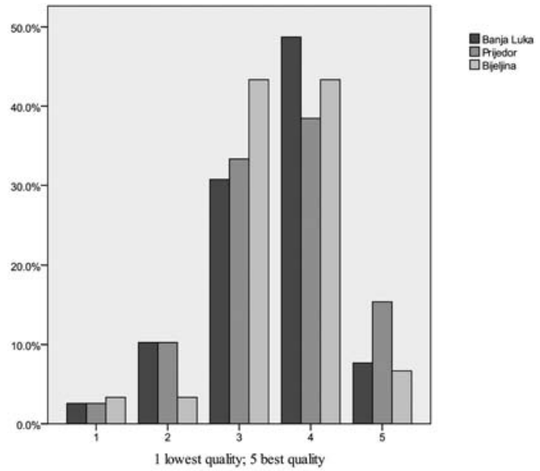
		Do you prefer buying locally produced fish?			Total
		Yes	No	Not important	
Banja Luka	n	28	6	5	39
	%	71.8%	15.4%	12.8%	100.0%
Prijedor	n	15	8	16	39
	%	38.5%	20.5%	41.0%	100.0%
Bijeljina	n	18	1	11	30
	%	60.0%	3.3%	36.7%	100.0%
Total	n	61	15	32	108
	%	56.5%	13.9%	29.6%	100.0%

Characteristics of supply and consumer preferences

By testing differences between the attitudes of consumers in terms of quality of offered fish on the domestic market, it was found that there was no statistically significant difference ($p=0.942$). When the attitude of consumers toward the quality for fish is analyzed, it shows that the largest number of respondents, on a scale of 1 to 5, gave 4, or it can be said that they were very satisfied with the quality of offered fish. When it comes to the supply of the domestic market with fish, the statistical significance of the observed characteristics was also not found, and the respondents were partially satisfied with the supply of fish markets.



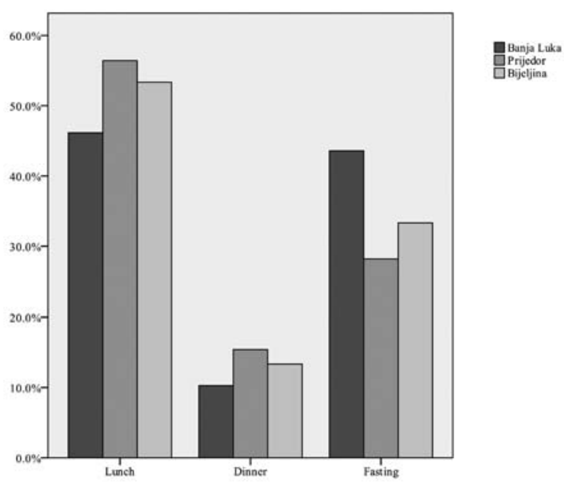
Graph 2. Frequency of fish quality evaluation



Graph 3. Frequency of fish buying place

Respondents in all three cities consider that the price of fish in the domestic market is high. Verbeke and Vackier have come to similar results, and they state that the most common reason for not buying fish are bones and price, i.e. the price is one of the limiting factors of more frequent purchase of fish. Also, Smederevac-Lalic et al. (2013) state that the decision on buying fish is largely influenced by price in addition to other factors.In all three cities the dominant place of buying fish is a supermarket, while the minimum fish is bought from the fishermen and the fishponds. The study of consumer attitudes in Italy (Gaviglio and Demartini, 2009) also states that the fish is most commonly bought in shops. The results indicate that consumers in the surveyed areas prefer to purchase fresh fish, and then frozen fish.

In BL, 59 % respondents has chosen fresh fish, in PD 36%, and in BN 60%. The occasions in which the fish is most commonly consumed are during the fasting season, during the day - for lunch, as the main meal.



Graph 4. Fish consuming occasions

There were two survey questions relating to the similarities and differences in consumer attitudes in the observed cities about information of consumers about the benefits of using fish in the diets and needs of advertising fish consumption in media. By the statistical analysis (χ^2 test) significance of differences has not been established. The majority of respondents in all three cities partly agree that there is sufficient information about the benefits of fish in the diet, but it is still necessary to much more promote the use of fish in the diet because of its health and nutritional importance. The open question of how to increase consumption of fish was answered by the consumers that it is necessary: to improve marketing, improve the quality of offered fish on the market, and work on price competitiveness.

CONCLUSION

Fish consumption in B&H and the Republic of Srpska is significantly below the world average. The habits of consumers in the purchase and consumption of fish in three largest cities in the Republic of Srpska confirmed by the survey that there are the differences in terms of quantity of purchased fish, the days of buying and preferences of the origin of the purchased fish. A statistically significant difference in quantities of purchased fish was found between respondents in BL and BN. In BL, for the majority of the respondents, it is essential whether the fish is of domestic origin or not.

The analysis of consumer attitudes regarding the quality of the fish they buy, the price of purchased fish, supply of fish markets, the place of purchase, type of purchased fish and the levels of awareness of consumers about the importance of fish consumption, and the need for advertising in the media, there were no significant differences in the responses of respondents in BL, PD and BN. The respondents in three largest cities in the Republic of Srpska are satisfied with the quality of offered fish but also considered that the price is one of the limiting factors for the purchase of fresh and primarily freshwater fish.

The research evidenced the attitude of consumers to further improve the quality and supply of fish in the domestic market and the need of producers and retailers for more intensive promotion of fish as a food product, in order to increase consumption of fish in the diet of the local population because of its nutritional and health aspects.

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