



**РОЛЯ И ЗНАЧЕНИЕ НА ИЗПОЛЗВАНЕТО НА АКВАПРОДУКТИ В ХРАНАТА НА ЧОВЕКА  
THE ROLE AND THE IMPORTANCE OF CONSUMING OF AQUATIC PRODUCTS IN HUMAN NUTRITION**

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**Резюме**

Изследването е концептуална рамка, базирана върху теорията за планираното поведение, за определяне на разбирането относно ползата от консумирането на риба, за определяне на предпочитанията на консуматорите по отношение на отделните видове и установяване на причините и пречките за консумацията на тези продукти. Резултатите показват, че всички анкетирани са наясно за ползата от консумацията на аквапродукти; 48% предпочитат аквапродуктите сред другите видове месо; 86% консумират аквапродукти; 70% предпочитат нови аквапродукти, когато трябва да избират от различни асортименти. Относно честотата на консумация: 64% употребяват аквапродукти ежемесечно, 15% веднъж седмично, 18% нерегулярно и 3% не използват такива продукти. Относно мястото, откъдето потребителите предпочитат да купуват аквапродуктите: 60% предпочитат магазините за прясна риба на селскостопанските пазари, 95% предпочитат супермаркетите за различни видове продукти. От изследването се прави заключение, че аквапродуктите са известни на потребителите и се използват, като добре се знае тяхната роля за здравословното хранене. Рибата е безопасна алтернатива за разнообразяване на храненето и за изменение на отношението на потребителите. Това може да стане посредством влиянието на семейството и обществото.

**Abstract**

This study represents a conceptual framework based on the theory of planned behaviour to determine the awareness of fish consumption benefits, the customer preferences regarding aquatic products and which are the causes and the barriers in acquiring those products. The results showed that all the respondents know which are the basic nutritional benefits of aquatic products consumption; 48% prefer aquatic products when they are asked to choose between different types of meat, 86% consume aquatic products, 70% prefer fresh aquatic products when they are asked to choose from different assortments; regarding the consumption frequency: 64% consume monthly, 15% consume weekly, 18% occasional and 3% don't consume. Concerning the place preferred by consumers to buy different assortments, the results were 60% prefers producers' stores from agro-food markets for fresh fish, 95% prefer hypermarkets for different aquatic products. It can be concluded that the aquatic products are well known and consumed, pointing a good knowledge of the benefits of a healthy diet. The fish is a safe alternative in diet diversification and in changing the consumer attitudes towards the fish meat and this may be achieved by family influence, educational system and society.

**Ключови думи:** риба, полза, знание, консумация.

**Key words:** fish, benefits, knowledge, consumption.

**INTRODUCTION**

Fish represents a functional food. Due to its high nutritive value, aquatic products through regular consumption may lead to beneficial effects on the functionability and health of human body. The fish meat is recommended to be consumed at least twice a week. In recent years consumers of food products reserves the right

to choose what is safe for a healthy nutrition. Nutrition represents a key factor which can affect development, health and well fare of the human body (FAO, 2007). A healthy diet must include fish consumption twice a week to specialist recommendation (FAO, 2007). Recently, fish meat is considered a functional food, due to its high nutritional value (proteins, polyunsaturated fatty acids  $\omega$  3 and  $\omega$  6,

minerals etc.), and the content in nutrients contributes to proper development and functioning of the body, and may reduce risk of diseases (cardiovascular, cancer, psoriasis, etc.) (Sidhu, 2003). Worldwide the fish consumption and other aquatic products tends to increase. It has to be well understood the reasons for the decline of fish consumption and to which foods have orientated the consumers preferences, and which would be the barriers that would determine the acquisition refusal (price, quality, place of purchase) and fish consumption and products obtained by its processing. This research aimed to study the level of awareness and consumption of fish meat, consumers preferences in acquiring the fish and products obtained from its processing on a group of consumers of different ages.

### MATERIALS AND METHODS

It was made a conceptual framework of knowledge and research of fish meat consumption based on some elements of the theory of planned behaviour (Ajzen, 1991; Bredahl and Grunert, 1997; Honkanen et al., 2003) which take into consideration several ways to study what is the attitude towards consumption of fish meat. To make a correct assessment could be taken into account a number of elements related to the knowledge of the benefits of fish meat consumption, the reasons and barriers, risk, positive or negative feelings encountered when buying fish, the desire to change lifestyle concern for the consumption of healthy food habits, family experience, new knowledge acquired, variety, price, accessibility to the acquisition, the degree of acceptance or cancellation of purchase or consumption due to convenience and some aspects of some of their views, education, etc. The material study was represented by 100 persons to whom a questionnaire was applied. The persons in this study were of different ages from 18 to 65 years old. There was formulated a research conceptual framework to evaluate the knowledge and consumption of aquatic products, based on some elements

of the planned behaviour theory to establish which is consumer perception regarding aquatic products, the attitude and the encountered barriers in its acquiring and consumption. The obtained data from the questionnaire were processed to determine the participation percentage from 100% of answered respondents.

### RESULTS AND DISCUSSION

Following analysis of the survey and responded to each part and the overall context could make a series of observations that eventually led to formulating few conclusions about the main objectives to be investigated. When respondents were required to choose one type of meat from a multitude 48% answered that prefer aquatic products (fig. 1).

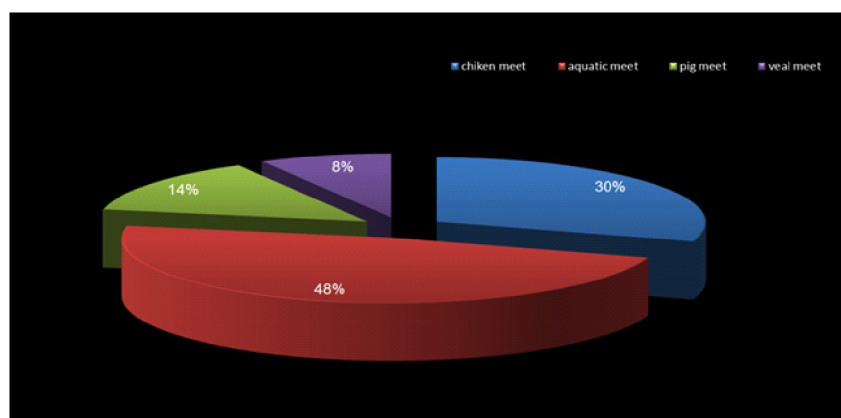
Knowing the aquatic products benefices on human health 86% of respondents prefer it (fig. 2). This proves that the benefits of fish meat consumption are known, being a determinant key in the purchase of fish meat, as shown by other researchers (Verbeke and Vackier, 2005) which studied and showed that fish meat consumption produces benefits for human health.

The consumers prefer the assortment of fresh aquatic products (70%) compared to 30% who rather consume different types of fish products (such as, salted 4%, smoked 8%, marinated 8%, canned 10%) (fig. 3).

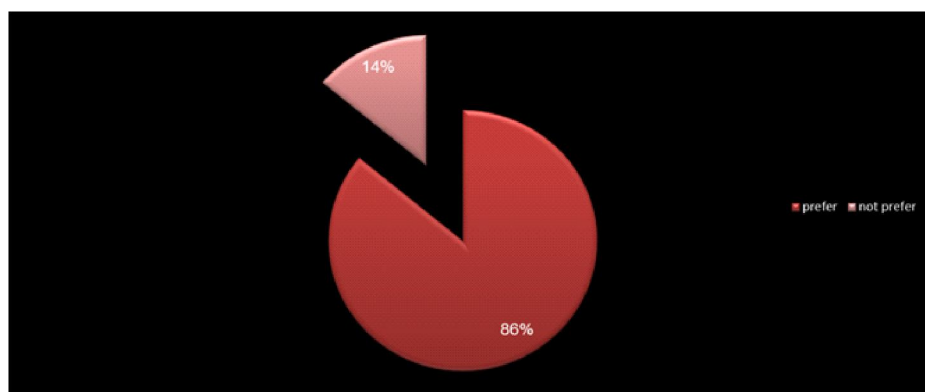
Relating to consumers preferences of seafood, the percentage vary from 24% for prawns, 18% for surimi, 15% for lobster and 6% for octopus (fig. 4).

The frequency of aquatic product consumption and, especially of fish consumption is around 64% monthly, 15% weekly, 18% occasionally (to restaurants or special meeting) and 3% does not consume at all (fig. 5.)

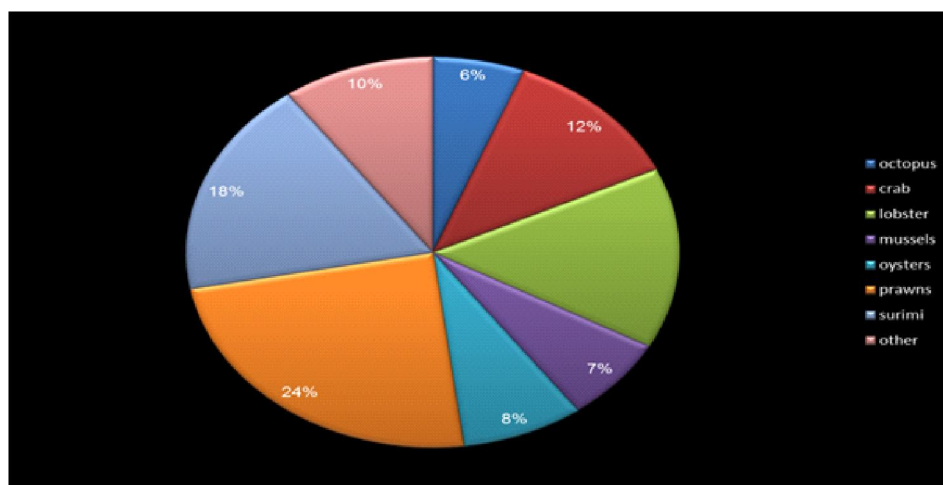
Majority of those questioned prefer to buy (75%), especially fish from the producers because they can guarantee for fish freshness. The fish is usually sold immediately after catching and to an acceptable price. The



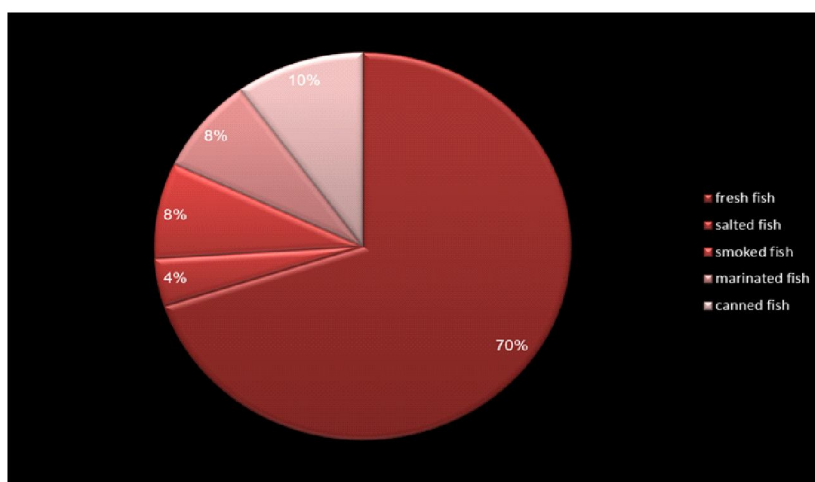
Фиг. 1. Предпочитания на потребителите при избор само на едно месо от няколко  
 Fig. 1. The consumers preferences when are required to choose only one type of meat from a multitude



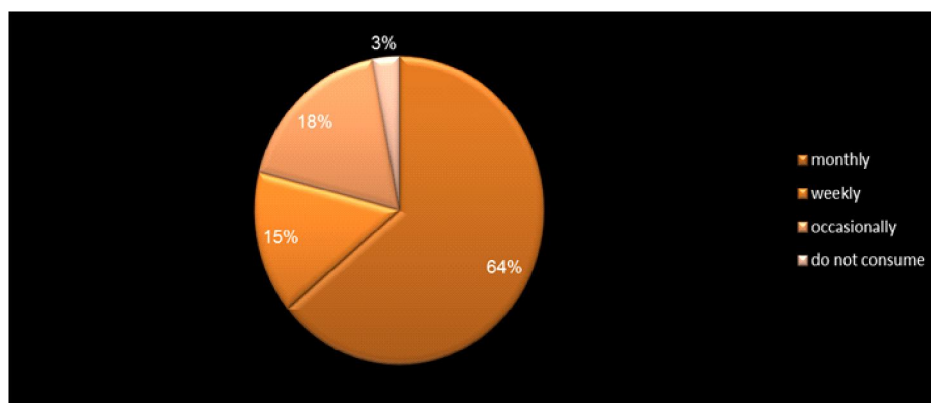
Фиг. 2. Предпочитания на потребителите по отношение на аквапродуктите  
 Fig. 2. The consumers preference regarding aquatic products



Фиг. 3. Предпочитания на потребителите относно формата на търговия с риба  
 Fig. 3. The consumers preferences regarding the form of trading the fish



Фиг. 4. Предпочитания на консуматорите относно вида на обработката и предлагането на рибата  
 Fig. 4. The consumers preferences regarding aquatic products commercialized



**Фиг. 5.** Честота на консумацията на аквапродукти сред анкетираните  
**Fig. 5.** Frequency of consumption of aquatic products among the respondents

rest of 25% respondents preferred hypermarkets. Regarding other products (frozen fish, canned fish, delicatessen) these are mainly bought from hypermarkets 95%, which have specialised rayon for these kinds of products.

For other aquatic products such as, sea fruits 95% the respondents prefer the hypermarkets, taking into account the food safety.

From this study we may draw a conclusion, which refers to the fact that the respondents know the benefits of a diet that includes aquatic products, and they prefer especially fresh fish and seafood as well.

### CONCLUSIONS

1. All the respondents know which are the basic nutritional benefits of aquatic products consumption; 48% prefer aquatic products when they are asked to choose between different types of meat, 86% consume aquatic products, 70% prefer fresh aquatic products when they are asked to choose from different assortments; regarding the consumption frequency: 64% consume monthly, 15% consume weekly, 18% occasional and 3% don't consume.
2. Concerning the place preferred by consumers to buy different assortments, the results were 60% prefers producers' stores from agro-food markets for fresh fish, 95% prefer hypermarkets for different aquatic products.
3. The aquatic products are well known and consumed, pointing a good knowledge of the benefits of a healthy diet.
4. The fish is a safe alternative in diet diversification and in changing the consumer attitudes towards the fish

meat and this may be achieved by family influence, educational system and society.

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Статията е приета на 12.12.2012 г.  
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