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## **THE INFORMATION ACTIVITY OF THE BIOACTIVE FOOD CONSUMERS**

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### ***Abstract***

*The main objective of this paper is to analyse communication activity of consumers and potential consumers of bio-active food in comparison to non-consumers of such food. The above-mentioned analysis is based on quantitative research, which was carried out within the project New Bioactive Food with Designed Functional Properties POIG 01.01.02-00-061/09. 500 structured interviews with people responsible for food purchases in households, were conducted between March and April 2015 in towns of Wielkopolskie voivodeship. The quota sampling was used with age, gender and size of the respondent's city of living as quotas. The sources of information used by bioactive food consumers were presented, as well as the way that they share information with others. Moreover, the similarities and differences in information activity, between people interested in pro-health food and those uninterested, were indicated.*

***Key words: consumers' information activity, bioactive food***

### **1. INTRODUCTION**

The bioactive food (functional, pro-health) is food with a proved positive effect on vital functions of an organism. Apart from supplying nutrients, functional food contributes to an improvement in health and well-being and/or to lower incidence of lifestyle diseases, etc. (Gawęcki and Mossor-Pietraszewska, 2006, p. 19). The bioactive food market displays a high level of information asymmetry between consumers on one side and the representatives of the supply, particularly producers, on the other. The asymmetry on a market appears when the scope of information shown by transaction participants varies; one of the parties has more/ more valuable

information (Akerlof 1970; Polański, Pietrzak and Woźniak, 2008). This asymmetry is not only related to the knowledge about the product itself, its contents, or its action, but also to the influence of various pieces of information and the way they are communicated on their perception and reliability in the eyes of consumers.

In order to reduce this asymmetry of information, both sides: the one better informed and the one with less information, can make the effort of obtaining information and also disclosing it to the other side. Such effort is referred to as an information activity. It should be understood as gathering, transmitting and exchanging information by and between market participants and as actions taken to extend one's own knowledge or the knowledge of other subjects (Forlicz, 2001, p. 52). Classification and examples of information activity were analysed among others by Kaas (1991). It should be emphasised that Kaas' classification does not present information activity in an exhaustive manner, for it takes account of only two categories of subjects – offerors and purchasers – while the latter may also obtain information from institutions and non-governmental organisations safeguarding consumer rights, as well as from education programmes and materials. More on this topic writes Nestorowicz (2013).

In the further analysis we are going to focus on the consumers' activity. The consumers' information activity, aimed at minimizing the asymmetry of information characteristic of the bioactive food market, can be manifested in the following ways:

- seeking and obtaining information,
- sharing it with other consumers,
- the passive reception of information given by the producer, or by an independent entity from the market environment.

A consumer can use the following sources of information:

- a producer and a distributor (the supply side),
- other consumers,
- independent entities from the market environment

Examples of activities undertaken by consumers, depending on the form of activity, the sources, or the recipients of information are presented in table 1.

Table 1

Examples of consumers' activities aimed at the reduction of the information asymmetry

Forms of information activities	Sources of information		
	Providers (producers, distributors)	Consumers	Other entities from the market environment (media, non-government institutions, science institutes, experts – doctors, dieticians)
Seeking information	<ul style="list-style-type: none"> <li>- reading information on leaflets</li> <li>- reading information on packaging</li> <li>- reading sponsored articles</li> <li>- asking questions on producers' websites</li> <li>- using a producer's helpline</li> <li>- asking a salesperson about the properties of the offered products</li> </ul>	<ul style="list-style-type: none"> <li>- asking other consumers about their opinions (family, friends, strangers)</li> <li>- reading other consumers' opinions on internet forums</li> </ul>	<ul style="list-style-type: none"> <li>- visiting dietitians</li> <li>- asking a doctor about nutrition</li> <li>- systematically watching programs about healthy food and rational shopping,</li> <li>- reading articles about healthy food and rational shopping</li> <li>- seeking information on the Internet (e.g. in blogs)</li> </ul>
Passive reception of information	<ul style="list-style-type: none"> <li>- involuntary reception of information from advertisements</li> </ul>	<ul style="list-style-type: none"> <li>- involuntarily hearing other people's conversation (e.g. in a line, or on a train)</li> <li>- observation of other people's behavior</li> </ul>	<ul style="list-style-type: none"> <li>- accidental watching TV programs, or listening to radio programs („by chance”)</li> </ul>
Forms of information activities	Recipients of information		
	Provider (producer of distributor)	Other consumers	Other entities from the market environment
Sharing information	<ul style="list-style-type: none"> <li>- making complaints</li> <li>- placing information on a producer's forum/website</li> <li>- information given through the helpline</li> </ul>	<ul style="list-style-type: none"> <li>- conversations about food products</li> <li>- posts on internet forums</li> </ul>	<ul style="list-style-type: none"> <li>- information given to the media</li> <li>- providing feedback to dietitians and doctors</li> <li>- complaints filed to organizations such as the Office of Competition and Consumer Protection, or consumer ombudsmen</li> <li>- participation in surveys</li> </ul>

Source: own elaboration.

The active information seeking is characterized by the central track of information processing, whereas the passive one – by the peripheral one (Doliński, 2005, pp. 97-98). Not all consumers are equally active in seeking and

sharing information. The differentiating factors of this type of behavior are diversified. This article focuses on the similarities and the differences between the information activity of the people who declare their interest in buying bioactive products and those who claim that they will not buy such products.

## 2. THE METHODOLOGY OF RESEARCH

With a view to indicating the similarities and the differences in the information activity displayed by consumers and non-consumers of bioactive food, quantitative research was conducted in cities of the Wielkopolskie voivodeship. 481 structured direct interview were held with people responsible for shopping for food in their households. This research was carried out within the project “New Bioactive Food with Designed Functional Properties” POIG 01.01.02-00-061/09.

The sample selection was based on the quota sampling, with the following selection criteria: gender, age and the size of the place of living. In terms of the age and the place of living the sample structure corresponded to structure of the general population. As for the gender, women accounted for 71% of the sample and men – for 29%. It was in line with the research results which show that 70% of the people responsible for food shopping in Poland are women (Baranowska-Skimina, 2013). The age span of respondents was 18-83.

To make sure that all the respondents will understand the concept of bioactive food in the same way, at the beginning of the research they were given the following information about the pro-health food: „The bioactive (pro-health) food is the type of food which not only provides the organism with the necessary nutrients, but also helps prevent and cure illnesses. In the project entitled “The new bioactive food with programmed pro-health characteristics” scientists from universities and science institutes from Poznań created food products enriched with the extracts from e.g. collard, chokeberry, mulberry, yellow tea, or beetroots, which can support the treatment of such diseases as: obesity, diabetes, hypertension, or inflammatory bowel disease. These are not dietary supplements, but wholesome food products”.

In order to define the information activity of the respondents, the five-point Likert scale was used. The statements which were supposed to indicate the differences between consumers and non-consumers of bioactive food were as follows:

- Seeking additional information about food is a waste of time
- I usually pay attention to advertisements of food products
- If there is an article about food in the press I normally buy, I gladly read it

- If, while watching TV, I come across a program about healthy eating, or rational shopping for food, I switch to another channel
- While surfing the Internet, I pay attention to articles, or websites devoted to healthy eating
- While shopping, I spend a lot of time reading information about the foods
- If I come across some brochures about healthy food, I gladly read them
- I like to share information about food products:
  - with family
  - with friends, acquaintances
  - with strangers, e.g. on Internet forums
  - in consumer opinion surveys (questionnaire, interviews)
- In conversations about food with family and friends I am the one who does the most of speaking
- Family and friends often ask me what I think about:
  - food products
  - reliability of information about food

In the applied 5-point scale 5 meant: I definitely agree and 1: I definitely disagree.

### **3. THE INTEREST IN THE BIOACTIVE FOOD**

The respondents displayed high interest in the pro-health food, mentioned at the beginning of the research. On the average,  $\frac{3}{4}$  of respondents replied that they would (definitely or rather) buy this type of food. 1 out of 10 participants had an opposite opinion (figure 1). Among those who favored this type of food was the highest proportion of people suffering from at least one of the following illnesses: hypertension, diabetes, iron absorption deficiency, anemia, inflammatory bowel disease. Among the ill people almost 37% were ready to buy such food, whereas in the remaining groups the proportion was 21.5-24%.

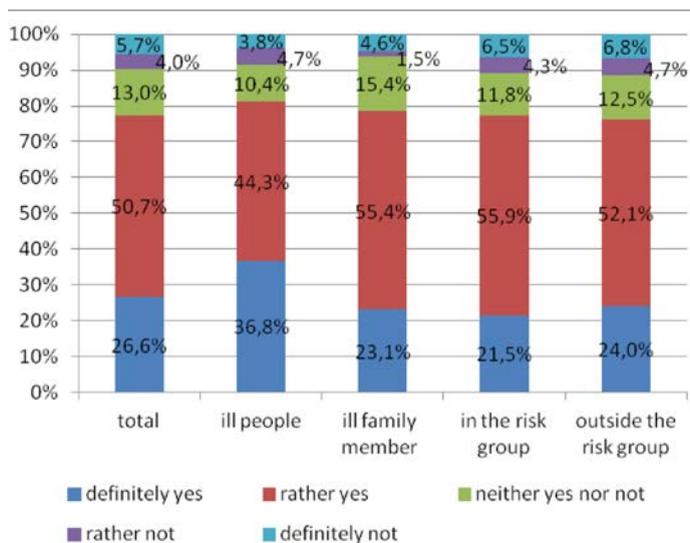


Figure 1. The willingness to buy pro-health (bioactive) food

Source: own elaboration based on a survey

The comparative analysis was conducted of the differences in the responses given by the supporters of the pro-health food (respondents who replied that they would definitely buy this type of food) and those given by the opponents (people who responded they rather or definitely wouldn't buy such food). In total, 175 people were selected for the analysis.

The group of supporters of the bioactive food was dominated by rather older people. The average age in this group was 49, whereas in the group of its opponents – slightly over 44. These groups did not differ in the number of people in the family, or the number of children in the household.

Women were much more interested in the bioactive food –  $\frac{3}{4}$  of female respondents would definitely buy the pro-health food, whereas among men the percentage of those who favored such food was smaller –  $\frac{2}{3}$ . People with the university or secondary education far more frequently declared their interest in this type of food than those with the elementary and vocational education. Respectively: 71% of respondents with the university education, 79% with the secondary education, 59% with vocational and 67% with the elementary education belonged to the group of supporters of the pro-health food. People defining their material situation as good were the most interested in the bioactive food (76% of them), whereas among those assessing their own situation as bad, only 50% favored this type of food.

#### 4. INFORMATION ACTIVITY OF THE SUPPORTERS AND THE OPPONENTS OF THE BIOACTIVE FOOD – SIMILARITIES AND DIFFERENCES

As it was expected, the supporters of the bioactive food were more active in the field of information than those who declare their lack of interest in this type of food. However, this more intensive activity did not concern all the aspects raised in the survey. Although the supporters of the pro-health food were more active in the area of seeking and obtaining information, as for sharing information with other consumers or producers, their level of activeness was similar to that observed in the group of the opponents of the pro-health food (Tables 2 and 3).

Table 2

The information activity of consumers and non-consumers of the pro-health food in the area of obtaining information (average)

Item	consumers	non-consumers
Seeking additional information about food is a waste of time	2,09	2,85
I usually pay attention to advertisements of food products	2,87	2,65
If there is an article about food in the press I normally buy, I gladly read it	3,71	3,00
If, while watching TV, I come across a program about healthy eating, or rational shopping for food, I switch to another channel	2,15	2,52
While surfing the Internet, I pay attention to articles, or websites devoted to healthy eating	3,41	2,78
While shopping, I spend a lot of time reading information about the foods	3,54	2,83
If I come across some brochures about healthy food, I gladly read them	3,69	2,83

1 – I definitely disagree, 5 – I definitely agree.

*Source: own elaboration based on a survey*

The respondents were also asked if they like to share information about food products with their family, friends / acquaintances, strangers, as well as in consumers surveys. In this area there were no significant differences between the consumers and the non-consumers of the bioactive food (table 3).

Table 3

The information activity of consumers and non-consumers of the pro-health food in the area of sharing information

Item	consumers	non-consumers
I like to share information about food products with family	3,44	3,52
I like to share information about food products with friends, acquaintances	3,52	3,50
I like to share information about food products with strangers, e.g. on Internet forums	3,58	3,32
I like to share information about food products in consumer opinion surveys (questionnaire, interviews)	2,64	2,61
In conversations about food with family and friends I am the one who does the most of speaking	4,29	4,02
Family and friends often ask me what I think about food products	4,52	4,30
Family and friends often ask me what I think about reliability of information about food	4,56	4,41

1 – I definitely disagree, 5 – I definitely agree.

*Source: own elaboration based on a survey*

The lack of statistically significant differences in this category was also related to the question whether or not the respondents were perceived by their family and friends as a source of information about food. People who declared their interest in buying the pro-health food were only slightly more frequently asked about their opinions about food products and the reliability of information concerning food than the respondents who were not interested in the bioactive food (table 3).

Therefore, it seems justified to conclude that the information activity of the supporters of the pro-health food does not result from their general willingness to exchange information, but it rather results from their rational approach to the selection of food products and their need for the knowledge which will enable them to make rational consumer decisions and to eat healthy food. This thesis is confirmed by the respondents' declarations concerning the kind of information they seek:

- needed for making purchase decisions concerning food products
- about healthy eating
- about the health benefits of the food they buy

The supporters of the pro-health food agreed with the above statements to a definitely larger extent than the respondents not interested in such food (figure 2).

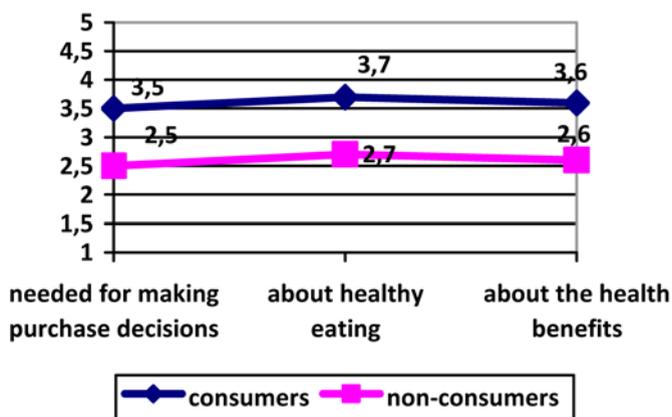


Figure 2. Information seeking by the consumers and the non-consumers of the pro-health food.

The question: Please express your attitude to the statement: I often seek information... in the scale from 5 I definitely agree to 1 – I definitely disagree.

Source: own elaboration based on a survey

## 5. CONCLUSIONS

In conclusion, it can be stated that the people who are interested in the pro-health food reveal more information activity in the area of seeking, obtaining and using the available information about food, or healthy eating, in comparison to the consumers not interested in this type of food. However, in the sphere of sharing the information with other consumers or market entities the differences between these two groups are insignificant. Bioactive food consumers through their activities minimize the information asymmetry between themselves and food producers. They do not affect the level of asymmetry between producers and other consumers who are not interested in bioactive food.

The increased activity in the area of seeking information and making use of the available messages is beneficial for bioactive food producers, because their potential customers are open to this kind of communication and interested in obtaining information about this type of food and healthy eating. Bioactive food manufacturers should meet the expectations of customers and provide them reliable information about the impact of their products on the consumers health. Customers interested in bioactive food are looking information on the food packaging, so the package is a great place to put information not only about ingredients, nutritional value, but also about the impact on human health. Placing such information is limited by law. Only products that were authorised by the EFSA, may have health claims on the packaging. It is the protection of consumers

against unfair manufacturers. In view of the research results, we can say that sponsored articles in the press and on the Internet and brochures are good ways of communicating healthy effects of food products.

From the social point of view, the limited interest in sharing information about healthy food and healthy eating with other consumers of the pro-health food is a disadvantageous phenomenon. People interested in the pro-health food are innovators, increasingly aware of the impact of food on human health. These consumers could become a kind of ambassadors of the pro-health food and a reliable source of information for other consumers, if only they intensified their activity in sharing their knowledge and experience related to this type of products. The most reliable source of information are other consumers. It was confirmed by the research conducted within the project: "New Bioactive Food with Designed Functional Properties" POIG 01.01.02-00-061/09, in which family and friends were assessed as the most reliable source of information about food.

## REFERENCES

- Akerlof, G.A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*. 3, pp. 488-500.
- Baranowska-Skimina, A., (2013). *Walka płci: kto podejmuje decyzje zakupowe?*, <http://www.egospodarka.pl/95822,Walka-plci-kto-podejmuje-decyzje-zakupowe,1,39,1.html> (accessed 26.01.2014).
- Doliński, D. (2005). *Psychologiczne mechanizmy reklamy*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Forlicz, S. (2001). *Niedoskonała wiedza podmiotów rynkowych*. Warszawa: Wydawnictwo Naukowe PWN.
- Gawęcki, J., Mossor-Pietraszewska, T. (eds.) (2006). *Kompendium wiedzy o żywności, żywieniu i zdrowiu*. Warszawa: Wydawnictwo Naukowe PWN.
- Kaas, K.P. (1991). Marktinformationen: Screening und Signaling unter Partnern und Rivalen. *Zeitschrift fuer Betriebswirtschaft*. 61.
- Nestorowicz, R. (2013). Consumers information activity on the polish food market vs. integration of Poland into the European Union. *Visnik. Logistika*. 762, pp. 133-138.
- Polański B., Pietrzak Z., Woźniak B. (2008) *System finansowy w Polsce-tom I*. Warszawa: Wydawnictwo Naukowe PWN.