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FOOD PRODUCTS INCLUDING FUNCTIONAL PRODUCTS — IMPLICATIONS FOR MARKETING IN TERMS OF NUTRITION AND HEALTH CLAIMS

POSTAWY KONSUMENTÓW WOBEC INNOWACYJNEJ ŻYWNOŚCI Z UWZGLĘDNIENIEM PRODUKTÓW FUNKCJONALNYCH — IMPLIKACJE DLA KOMUNIKACJI MARKETINGOWEJ W ZAKRESIE OŚWIADCZEŃ ŻYWIENIOWYCH I ZDROWOTNYCH

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ABSTRACT

In order to identify the attitudes of consumers towards innovative food products, including functional foods, qualitative research was carried out in 2019 to find out what are the components of these attitudes in relation to innovative food, on the example of functional food, in the conditions of the growing global tendency to care for health and convenience. As a result of the research carried out using the focus group interview (FGI) methodology, it was found that innovative food is associated with a new taste or packaging, increased nutritional value, as well as health related attributes. Often, in studies, consumers also referred to the reduction or complete elimination of allergenic ingredients and other chemical ingredients, e.g. preservatives, flavor enhancers. Consumers accept these innovations in different ways, generally showing skepticism about "improving" food by enriching it with various ingredients, while positively referring to changes related to the reduction in the content of nutrients considered harmful to health, e.g. fat, sugar or salt. It was also noted that innovativeness treated as a personality trait is accompanied by such features as: openness, tolerance, optimism, life satisfaction, while people lacking tendency to accept innovation are usually pessimistic about the world, attached to tradition or thrifty. It was also noted that consumers similarly perceive innovative and functional food, indicating that functional products are food with a specific health purpose, with a modified composition. The interviewees also indicated that it is possible to increase the interest of consumers in purchasing new food products or functional food through, inter alia, well targeted marketing messages, and it is necessary to take into account the legal regulations regarding



their wording when formulating them. This applies in particular to the possibility of using nutrition and health claims in the case of products enriched with ingredients with a declared health-related effect.

Key words: consumer innovativeness, functional food; innovative food, marketing communication, nutrition and health claims

ABSTRAKT

W celu rozpoznania postaw konsumentów wobec innowacyjnych produktów żywnościowych, w tym żywności funkcjonalnej, w 2019 r. przeprowadzono badania jakościowe metodą poglebionych dyskusji grupowych. W wyniku przeprowadzonych badań stwierdzono, że innowacyjna żywność kojarzona jest z nowym smakiem, opakowaniem, podwyższoną wartością odżywczą, a także atrybutami prozdrowotnymi. Uczestnicy dyskusji grupowych dość często odnosili się też w swoich wypowiedziach do zmniejszenia badź całkowitego wyeliminowania składników alergennych oraz konserwantów, ulepszaczy smaku, barwników itp. Stwierdzono różny poziom akceptacji tych innowacji, przy czym badani konsumenci wykazywali na ogół negatywny stosunek do "polepszania" żywności poprzez jej wzbogacanie różnymi składnikami, pozytywnie natomiast odnosili się do zmian związanych ze zmniejszeniem zawartości składników uznawanych za niekorzystne dla zdrowia, np. tłuszczu, cukru czy soli. Odnotowano też, że innowacyjność, traktowana jako cecha osobowości współwystępuje z takimi cechami, jak: otwartość, tolerancja, optymizm, zadowolenie z życia, podczas gdy ludzie pozbawieni skłonności do akceptacji innowacji są zazwyczaj pesymistycznie nastawieni do świata, przywiązani do tradycji, oszczędni. Stwierdzono też, że konsumenci podobnie postrzegali żywność innowacyjną i funkcjonalną, wskazując, że produkty funkcjonalne charakteryzują się zmodyfikowanym składem, a więc są innowacyjne. Badani podkreślali też, że można zwiększyć zainteresowanie konsumentów nabywaniem nowych produktów żywnościowych czy żywności funkcjonalnej poprzez m. in. trafnie sformułowane komunikaty marketingowe uwzgledniające prozdrowotne ich właściwości, przy czym niezbedne jest przy ich formułowaniu uwzględnienie prawnych regulacji dotyczących ich treści. Odnosi się to zwłaszcza do możliwości stosowania oświadczeń żywieniowych i zdrowotnych w przypadku produktów wzbogaconych składnikami o deklarowanym działaniu prozdrowotnym.

Słowa kluczowe: innowacyjność konsumentów, żywność funkcjonalna; innowacyjna żywność, komunikacja marketingowa, oświadczenia żywieniowe i zdrowotne

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Introduction

The food market is one of the most innovative industries both in Poland and in the world, despite the moderate interest of consumers in "modern" food products and the dominant trend in the first decades of XXI century of preferring traditional methods of food processing and its natural character. At the same time, there is an increase in consumer awareness of

the relationship between food, diet and health, which may lead many food producers to market products with special health-promoting, functional properties or increased nutritional value (Pachołek, 2019). Such tendencies, in relation to the domestic food market, may also be justified by the fact that health is the dominant value for the vast majority of Poles (Czapiński and Panek, 2015; Gutkowska and Kwieciński, 2016), and when asked about what is particularly important to them in food, consumers usually answer "That it does not contain ingredients that are harmful to me" and "that it has a good effect on health." At the same time, the same research shows that consumers value the taste of food more than health attributes.

A kind of controversy is noticed between the hierarchy of values of Poles and the attributes of food they value, and the resulting behavior towards specific food products. On the one hand, consumers value health the most, and at the same time they pursue the pleasure they look for in food. This phenomenon reflects the essence of the conflict of disproportionate scales of value in relation to food², as well as the discrepancy between the individual components of consumer attitudes (Witek, 2019). It is also worth emphasizing that although there is a growing awareness of the mutual relationship between nutrition and health, which is reflected in the search for the so-called "healthy food", in the connotations of this term, the taste of the product clearly dominates among other indications.³ It is also observed that the level of knowledge and education of the society in the field of nutrition is still low, and in many areas there are myths and stereotypes that disrupt the rationality of consumer choices (Drywień, 2019).

Consumer attitudes towards innovation on the food market — structural approach

In studies of consumer attitudes towards various market phenomena, it is worth referring to the structuralist way of defining them, according to which an attitude is defined as a cognitive-behavioral structure oriented towards the subject of the attitude, constituted by three elements: cognitive, emotional and behavioral (Nowak, 1973; Gutkowska and Ozimek, 2005).

The arrangement of these three elements is maintained by the reaction of the environment and individual satisfaction resulting from specific reactions to market and social stimuli, which results from the fact that consumer behavior is social behavior (Gutkowska and Ozimek, 2005). In this context, identifying consumer attitudes towards innovative and functional food should start with finding answers to the following questions:

- How do consumers understand the terms "innovative food product" and "functional food" and what changes do they see on the food market? (knowledge component);
- What is the attitude of consumers to the observed changes on the food market, as well as to innovative and functional food and its purchase? (affective component);
- How do consumers behave or plan to behave towards innovative and functional food products? (behavioral component).

An important concept in this article is also innovation and innovativeness as well as functionality of food, which connote many meanings, relating both to the introduction of innovation (Schumpeter, 1960) and the perceived novelty characteristics of various food products quantified by consumers as new.

The precursor of the interest in innovation was Rogers (1983), who defined it as the degree to which an individual accepts innovation in relation to others. Thus, innovativeness is a feature that distinguishes people and their behavior towards innovation. Innovativeness is more common among young, educated people without financial problems (Gatignon and Robertson, 1985; Kowalczuk, 2011; Kowalczuk et al. 2013; Olejniczak, 2018). Innovativeness is also positively correlated with such features as: independence, extrovertism, impulsiveness, willingness to take risks, tolerance of ambiguity, flexibility in behavior, as well as open mind, wide horizons, love of adventure and a strong need to maintain social relations (Mazurek-Łopacińska, 2003), or a positive attitude to life, enthusiasm and tolerance (Gutkowska and Ozimek, 2008). It is worth noting that consumer innovativeness is defined in various ways in the literature on the subject, although most often it is understood as the degree to which a person accepts new products relatively earlier than the average

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of members of a given community (Goldsmith and Hofacker, 1991) or as a tendency to buy specific new products as soon as they appear on the market, earlier than other representatives of this segment (Cotte and Wood 2004; Roehrich, 2004). Truong (2013) refers to consumer innovativeness as consumers' interest in innovation, as well as their level of knowledge about it and the tendency to buy new products. In the latter approach, innovativeness corresponds to the notion of innovation, for which, according to the approach represented by Olejniczuk-Merta (2016), consumers consider completely new, previously non-existent products or a significant modernisation of the existing counterparts.

An important concept in this study is also the term "functional food", which first appeared in Japan, referring to "Foods for Specific Health Uses (FOSHU), and in this context Roberfroid (2000) for functional food "foodstuffs containing an ingredient that has an effect on health, and the reference to its physiological effects on the human body has been officially approved" (https://www.mhlw.go.jp/). The conceptualization of the new food category in Japan was caused, inter alia, by recognizing the fact that, apart from two basic functions, i.e. nutritional and sensory, food can fulfill one more function, namely physiological, resulting from the presence of the so-called functional ingredients that may affect human health (Arai, 1996; 2002; Siro et all., 2008; Martirosyan and Singh, 2015). Therefore functional food can be treated as a synonym of food with special health attributes, which are, besides sensoric quality and price, one of the main determinants of purchase behaviour in developed countries (Kozirok Marciszewicz, and Babicz-Zielińska, 2016).

Objective and methodology of research

In order to identify consumers' attitudes towards innovative food products and the sociodemographic profile of innovators on the food market, as well as perceived and accepted changes in the food market and the conditions for purchasing innovative food, qualitative research was carried out in 2019 using the FGI (Focus Group Interview) method in the number of 6: two in Warsaw, one in Gdańsk and one in Białystok. Eight people participated in each group and the duration of one session was approximately 2 and a half hours. Similar criteria for selecting participants

of the session were used as in the previous qualitative research carried out under the "Biożywność" (Bio-food)⁴ project, i.e.: women, age: 30–50 years, running a household with children or without dependent children. Four sessions were attended by women who did not have health conditions, personally or in their immediate family, that prevented the consumption of certain types of food, while the other two sessions were attended by women who had such conditions personally or in their immediate family. Participants of sessions were recruited in stores offering food products; women were asked to participate in survey as well for telephone numbers to convenience the date and place of FGI. Women with health problems were recruited thankfully of cooperation with dietetics.

The moderation scenario was included following subjects/aspects: changes perceived on the food market as well their evaluation; knowledge and understanding the terms "innovative food product" and "functional food" as well associations with these terms; the interest of buying "innovative food product" as well "functional food" including information on package.

During all sessions, projection techniques were used, on the basis of which it was possible to define the image of an innovative and traditional food consumer and to characterise the world in which they live. The subjects were asked to imagine two planets reflecting those two worlds and to characterise their inhabitants.

Results and discussion

On the basis of the conducted qualitative research, a relatively large convergence was found between the way of understanding the terms: innovative and functional food, although the latter concept (i.e. functional food) seems to be more unknown to the respondents. Less than half of the participants of the group interviews admitted that they had encountered the term innovative food, identifying it with "healthy food", without preservatives and artificial colors, or with modern food, defined as "improved, and therefore new taste, recipe, form". Innovative food was also occasionally associated with "higher quality products".

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The vast majority of the respondents did not know the term "functional food", answering "No, I have never heard of it, it is something new for me. But I am open to any news; Unfortunately, I do not know such foods; I don't know that, it's something new for me, but I like to cook, so I'd love to know it". Few of the discussion participants expressed an interest in functional food, especially women experiencing diet-related diseases.

The respondents most often associated functional food with a positive effect on health, as evidenced by the statements "I associate it with something that has a positive effect on health; Thanks to such food, you can get rid of certain diseases or conditions. It definitely has some specific functions; Maybe there are some functional foods that help, for example with focus, concentration, effort; It is a food that positively affects all functions in the human body; I don't know, it reminds me of a diet, maybe for allergy sufferers or diabetics. Maybe it is food that improves body functions and life functions." The respondents answered that the examples of functional foods may include, first of all: "fruit and vegetables, organic products, cereals, low-calorie products or products containing fiber in their composition". The "healthy" nature of functional food was more often present in the statements of women directly affected by the problems of diet-related diseases. The respondents from the remaining group sessions expressed the opinion that such products can be generally understood as healthy, free from allergens, preservatives and less processed, e.g. organic products, vegetables or fruit; allergen-free products; products containing fiber". It was also noted in the statements of the participants of individual sessions that they pay attention to the financial aspect and seek a compromise between high quality, price and convenience. In addition to naturalness and freshness, diversity was also important for the surveyed women, which guarantees the supply of all the necessary nutrients. Consumers participating in group discussions also paid attention to the aesthetics of the packaging and the information on it. In the context of the cited opinions, it is not surprising that the surveyed consumers most often associated the "healthiness of food products" with the following characteristics "freshness; naturalness; lots of nutrients: vitamins (A, B, C) and trace elements (potassium, magnesium, calcium, iron), but of natural origin; no preservatives and chemicals; naturally preserved; ecofriendliness, no pollution, pure nature; naturally fed animals; low in fat,

but not reduced in fat; the right proportions of protein, fat and carbohydrates; without harmful substances: e.g. cholesterol; environmentally friendly packaging: e.g. glass; not very long expiry date." According to the surveyed women, important for the credibility of the "healthiness" of food is "the recommendation of a scientific research institute or other such institution".

Generally, it can be stated that the surveyed consumers had a negative attitude towards food improvement. They associated terms such as improving, bettering, increasing the quality with "artificial, chemical interference with food, which becomes modified and unhealthy". Consumers also expressed suspicions that such activities were "undertaken not so much in the interest of consumers but food manufacturers, and their main goal is to increase the profitability of their operation", while stating that "nature is perfect in itself, so there is no need to improve what is good, because perfect is the enemy of good", adding that "you need to focus on not spoiling nature, for example to use more natural methods of livestock farming", including "appropriate feeding and conditions maintenance and slaughter of animals". It is worth commenting on the latter view, indicating that Polish consumers show a certain sensitivity to animal welfare issues, which, unfortunately, is not very often treated as an important criterion for high-quality food of animal origin (Gutkowska and Choiński, 2019). The surveyed women noticed the possibility of obtaining high-quality food through proper feeding, ethical treatment and slaughter of animals, no chemical interference, and the appropriate process of food processing, storage and distribution. The differences between local products, e.g. from a small rural butcher's shop or a smokehouse, and products from industrial production, especially the shelf-life of traditional meats and natural curing methods, etc., were also emphasized.

A different level of acceptance for innovation in different types of food products has been noticed, reflecting the fact that there is a higher level of acceptance for "improving" dairy products, the functional nature of which is more known to consumers for reasons including association with "prebiotics contained in yoghurts or kefirs, the presence of which is important for human health".

The surveyed consumers would accept such innovations that eliminate or reduce the disadvantages of the products, e.g. in the case of meat and

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meat products, "reducing fat, making the meat softer and easier to process, containing less cholesterol", and in the case of dairy products reducing its allergenic properties, and in the case of eggs, reducing the cholesterol content, which would allow "eating eggs in larger quantities".

During all sessions, projection techniques were used, on the basis of which it was possible to define the image of an innovative and traditional food consumer and to characterise the world in which they live. The subjects were asked to imagine two planets reflecting those two worlds and to characterise their inhabitants. The world of people open to new ideas, designed by the participants of the group discussion, is characterized by constant changes and orientation towards the future. According to the surveyed women, this world is "dynamic, constantly changing, futureoriented, promoting development of modern technologies and diverse". In the world of innovators, according to the respondents, there is an atmosphere of "common optimism, joy, physical and entrepreneurial activity, dynamic changes, as well as the need for achievement, prestige and tolerance". This world is inhabited by people whose participants of group discussions presented as: "curious for new experiences, explorers, experimenters, brave, self-confident, open to differences, innovative, tolerant, as well as self-satisfied". The planet of innovators, in the projection of the study participants, is inhabited in particular by young people, "teenagers, students, people under 40, and above all young at heart"; People living on the planet of innovators are mainly inhabitants of big cities, professionally active, but at the same time having free time, which they spend actively "traveling, doing sports and looking for adventures and new experiences". An important trait of the inhabitants of the planet of innovators is wealth, which allows them to make free, financially unlimited purchasing choices. The inhabitants of the planet of innovators "prefer specific categories of products, most often exclusive brands". Moreover, "they are modern and inquisitive", and their modernity also manifests itself in relation to places where they make purchases, making them most often choose "online shopping". The inhabitants of the innovative land, unlike the representatives of the world cultivating traditions, are "colorful people, smiling; full of life; future-oriented; preferring a fast life and driving fast, but at the same time in environmentally friendly cars". They are also people maintaining a healthy

lifestyle, in which physical activity and taking care of what you eat are important elements.

Such characteristics of innovators are confirmed by the previously obtained results of research on the perception of innovations and innovators by young consumers, according to which innovators are characterized by e.g. optimism, joy of life, openness, pro-development attitude" (Gutkowska and Ozimek, 2008).

The world of people attached to tradition is perceived completely differently, described by the surveyed women as: "traditionalists, conservatives, unbelievers, schematic, old-fashioned and simple people, undemanding and preferring traditional, proven cuisine, as well as thrifty". The world of people attached to tradition, unlike the world of people open to innovation, is a stable, and therefore predictable world. This predictability is primarily due to the fact that life in this world is based on the past, so tradition is the main mechanism for creating human behavior, reducing the risk of failure and also making non-habitual behavior unacceptable.

The inhabitants of the planet of traditionalists are most often the elderly, without dependent children, while the innovators are "young people with dependent children, but also those independent from anyone, single or in a relationship, also of the same sex".

Another point in the moderation scenario concerned the consumers of functional food, when some women participating in the study replied that functional food can be bought by everyone "you just need to know where". The respondents also noted that functional food is expensive and can be bought by wealthy people, stating: "I am not aware of the price, but if it is more expensive than ordinary food, it is definitely intended for wealthier people; I think that the consumer of such food can be anyone who can afford such diet", emphasizing also that functional food is bought by people suffering from some diseases: "sick people; sick people; suffering from chronic diseases". Individuals stated that functional food is bought by chefs: "Maybe chefs have better access and know how to prepare it for consumption, or they buy it to diversify their menus."

Majority of the respondents replied that they do not buy functional food, as evidenced by the following answers: "No, I do not buy it" or "I have never bought such food", arguing that they do not buy functional food because

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they do not know that type of products and do not know where to buy them, as evidenced by the statements: "I have never bought or seen such food on the shelves; I don't even know where to buy it. I don't know shops like those". One of the respondents replied that she does not buy functional food because "it is healthy, so she does not have to", and another said that "I often buy bran and kefir", treating them as examples of functional foods.

In the final stage of the group discussion, the respondents were asked how the interest in functional food among consumers could be increased. Most of the women participating in the study noticed that functional food could be more popular as a result of advertising campaigns on television and on the Internet, as evidenced by the following responses: "Certainly advertising on TV and on the Internet; Any advertising of this food, showing its use, advantages; Advertising could help make functional foods more popular than before." Other participants of the study pointed out that this group of products should be marked on the shelves in stores and widely available, which is confirmed by the following statements: "the possibility of purchasing in popular stores or supermarkets. This is important for every customer; Popularizing them on store shelves or recipe books with such food; Maybe there were more shops with such food, also in smaller towns; If the products were marked on the shelves, they would be more popular." One person noted that more people would buy functional foods if they were cheaper. Increasing the interest in functional food can also be done by disseminating information on the essence of functional food and its importance for human health, e.g. "Brochures on the activity of functional food, its use, its positive aspects, beneficial effects on health; Exactly presenting what this food is about, showing the benefits of eating it; There should be television programs about this food and shelves in stores with such products should be organised."

Summarizing the course of in-depth group discussions aimed at identifying consumer attitudes towards innovative food, individual components of these attitudes can be defined. Beginning with the most essential element, i.e. the knowledge component, it must be stated that both the concept of innovative and functional food is not widely, or even negligibly known, especially in relation to functional food, although it is necessary to emphasize the association of food with a special healthy function both by eliminating unhealthy components, e.g. fat, salt, sugar, as

well as by increasing the content of those that are responsible for the healthiness of food, e.g. vitamins or minerals. Thus, the surveyed women in their ideas about functional food were related to the Japanese conceptualization of this food category, in which it was emphasized that food can fulfill a physiological function resulting from the characteristics of the so-called functional ingredients, the relevant level of which may affect human health (Arai, 1996; 2002). The surveyed consumers represented a low level of awareness of what functional food is and what products it covers, which also explains the low level of interest in its purchase. The reason for this is, among others, its higher price and the lack of knowledge where it can be purchased, which indicates the need to promote such food, clearly mark it on store shelves, distribute it, make it available to everyone, in which the Internet and television can be helpful. At the same time, the surveyed consumers gave examples of functional products (kefir, food for allergy sufferers). This apparent paradox can be explained by the lack of awareness of a common category known as "functional food". In such a situation, the very word "innovation" and the term "functional" cause confusion, also given the foreign language origin in both cases, characteristic of scientific and technical terminology. In this context, both phrases may constitute a burden, and not a factor promoting the consumption of healthy products, the more so as it also suggests association with higher prices than in the case of analogical conventional products. It is worth emphasizing once again that both the terms "innovative food" and "functional food" were associated in a similar way among the surveyed women.

Another component of attitudes towards innovative and functional food, i.e. a psycho-emotional attitude towards this type of food, can be regarded as moderately positive, or even skeptical, which results from the belief that nature should not be improved and any interference with food is perceived as inconsistent with its naturalness, which is a feature of food products preferred by consumers. In this context, the behavioral component is a simple consequence of the lack of knowledge about the actual attributes of functional and innovative food, as well as a skeptical attitude towards this food category, recognizing that it should be addressed to consumers with certain medical conditions, for whom such food with specific functions should be intended, e.g. food for allergy sufferers. Taking into account the

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fact that the group of people suffering from various diet-related diseases is consistently increasing in number, further development of the functional food market can be forecast, and the forecasts for the next few years predict its dynamic growth, up to the level of around USD 260 billion in 2024, while in 2015, the value of the global market for these products amounted to approximately USD 130 billion.

Implications for marketing communication of innovative and functional food with including nutrition and health claims

In the context of mentioned empirical results, functional food as well innovative food, can be treated as a synonyms of food with special health attributes, which are, besides sensoric quality and price, one of the main determinants of purchase behaviour. Therefor in marketing communication these aspects should be especially taken into account. Health benefits of functional and innovative food are reflected in nutrition and health claim, which may be used on packaging of these kind of food products.

These insights can be useful in determining the marketing strategies of companies that manufacture or market functional products. This is due to the known view that in marketing activities an important role is assigned to the knowledge and experience of consumers with regard to products and ingredients, as well as related statements. As functional food is of particular importance as a health-enhancing food, its acceptance is likely to be higher for consumers expressing concerns about their health or their family members health. Studies have confirmed that consumers with a sick family member more easily accept functional foods (Verbeke, 2005), and also use some products from this category more often (Hepburn, 2008).

When communicating with the consumer, producers, retailers, and increasingly also HORECA entrepreneurs, refer to the specific characteristics of their products, and in relation to food, it is often attributed to its health benefits: from basic messages regarding the level of nutrients or the presence of raw materials, through statements related to a simple physiological action, and ending with declarations regarding the prevention or even treatment of certain diseases, sometimes formulated in

a very general manner, sometimes in a manner characteristic of medical communication, i.e. reserved for medicinal drugs. In this situation, an understandable response from public institutions at the central level is the introduction of appropriate provisions in the field of ensuring the safety of the consumer and the protection of his economic interest which could suffer as a result of using false messages or messages containing an element of manipulation, in particular those referring to the properties whose a given product does not show or for those that possessed by all similar products. These are the rules that have been implemented into the food law of the European Union and consequently they are valid across the Community market, including Poland.

Taking into account the above conditions, entrepreneurs who want to achieve market success must ensure that they reach the right audience, with the right product and the promise of benefits, which will first attract consumers, and then, by fulfilling it, gain their trust. On the other hand, due to the strict requirements of legal regulations, manufacturers should pay special attention to avoiding messages that may, even indirectly, indicate that the product has specific properties that cannot be attributed to it, which could lead to an unfavorable purchasing decision. The implementation of regulations in this area is the obligation of entrepreneurs and the subject of the activities of official food control bodies, and non-compliance may lead to severe legal and image-related consequences, usually with a direct impact on the financial result.

In the case of products from the functional food category, the recipe of which is most often a modification of a conventional product, a specific health function arises precisely as a result of this modification. The declared benefit is a response to the health need of a specific group of consumers and may have the form of a nutrition or health claim. The conditions of use of a given claim include criteria that must be met by the product formulation and its label, in particular as regards the wording of the specific nutrition or health claim and additional information that may provide for the fulfillment of the declared function.

Many studies on the awareness and acceptance of functional food indicate that it is not unconditional, but is determined by many factors, especially the health problems experienced by a person or their or their closed relatives, experience with functional products, with active

ingredients, and the way of communicating the health effect of those products (Annunziata and Vecchio, 2011; Siro et al., 2008; Verbeke, 2005).

Some studies indicate gender differences in consumer behavior towards functional foods, i.e. they emphasize the greater involvement of women in controlling body weight and their greater concern for healthy eating (Bogue and Ryan, 2000; Poulsen, 1999). It has also been shown that women are more knowledgeable about functional foods, which is why they declare their willingness to eat it. Thus, women constitute a larger group of functional food consumers both in the US and in Europe (De Jong et al., 2003).

With regard to the marketing communication of functional food, one of the main attributes of which is the health-promoting factor, it is worth referring to the notion of nutritional and health claims, the role of which in making purchasing decisions is to provide information necessary to make an informed choice (Leathwood et al., 2007; Williams and Ghosh, 2007).

Most studies support the idea that the perceived healthiness of the product has increased following the addition of a health claim, but the impact is small or at most moderate (Lyly et al., 2007; Saba et al., 2010; van Trijp and van der Lans, 2007).

From a technical and legal point of view, there are clear differences in health claims compared to nutrition claims, as the latter do not describe the link between nutrients and health function. At the same time, for consumers, this distinction may be unclear or irrelevant, as both types of claims are based on nutritional factors and share a common network of associations (Lawson, 2002).

Health claims can contain a varying amount of information, sometimes in rather complex form. The preference for long and comprehensive information was associated with a positive attitude towards products with health claims and a trust in authorities and scientists, which is essentially related to nationality. This approach turned out to be characteristic of the Scandinavian countries (Grunert et al., 2009), while consumers in Ireland preferred shorter statements related to the content of a specific nutrient or to health benefits (Lynam et al., 2011).

Health claims can also be categorized into positive effects (benefits) and those that relate to reducing disease risk. A study of consumers in the Netherlands showed that, in the area the cardiovascular health, a risk

reduction claim was preferred, while concerning the fatigue consumers prefer a simple benefit claim. In general, the messages in the statements can be divided into those that appeal to incentives to gain and those that appeal to reasons to avoid a negative effect. According to the perspect theory (Kahneman and Tversky, 1979), people are more sensitive to possible losses than to potential benefits. Based on this principle, health claims based on negative statements should be seen as more convincing. Consumers take the promise of health benefits to be more credible on products for which a benefit has previously been claimed using health claims (Lähteenmäki et al., 2010). This is not the case for adding new claims on products deemed beneficial in nature. Consumers may then question the concept of increasing the healthiness of products already recognized as beneficial to health (Lampila et al. 2009), in line with the belief that "perfect is the enemy of good".

The power of the megatrend of naturalness gives an advantage to products that are healthy due to their natural nutritional value. Consumers are less likely go for added active ingredients and the properties obtained from manufacturing process. They are also often better at accepting products with ingredients of negative perception removed than products fortified with valuable substances. This prejudgment can be overcome by adding natural active substances and processing processes similar to traditional, and by increasing the level of knowledge of target groups, explaining the added value of using innovative methods. The relationships found in our own research have also proved that consumers are more likely to accept messages related to the properties of ingredients naturally occurring in products, or constituting part of a traditional recipe, than those added to food.

Building communication should be part of the entire innovation process. In the case of functional food products, the recipe, which is most often a modification of a conventional base product, a specific health function arises precisely as a result of this modification. The declared benefit is a response to the health need of a specific group of consumers. Work on the appropriate message, which is an element of marketing, should precede the development of the recipe and set its framework, because the composition and even the type of the product are secondary to the expectations of the target group, which, in turn, is in the area of consumer research. At the

same time, these activities must also be accompanied by the adaptation of the communication to legal requirements. The conditions of use of a given claim include criteria that must be met by the product formulation and its label, mainly with regard to the wording of the specific nutrition or health claim and additional information that may provide for the fulfillment of the claimed function.

Nutrition and health claims must comply with the general and specific rules and requirements regulated by Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods, and in the case of health claims other than claims relating to disease risk reduction, the conditions of their use are subject to the provisions setting out the lists of authorised claims contained in Commission Regulation (EU) No 432/2012 of 16 May 2012 establishing a list of permitted health claims for foods, other than those relating to the reduction of disease risk and children's development and health and the regulations that amend them.

The need to ensure compliance with the provisions of food law, and in particular with the regulations on nutrition and health claims, is a huge challenge for entrepreneurs and their support facilities, both on the R&D side and in the area of marketing. For smaller entrepreneurs, the sheer complexity of regulations is an obstacle. Larger companies struggle with complicated procedures for approving new statements. This area is strictly regulated in the EU law. Entrepreneurs are allowed to use only the claims included in the list in accordance with the accompanying conditions and other criteria set out in the framework and specific provisions. Communication using medical terms and referring to the treatment or prevention of diseases is not allowed, because it is reserved for medicinal drugs. The development of the drug and dietary supplements segments confirms that consumers are susceptible to messages formulated by pharmaceutical companies, while at the same time distrusting such statements in relation to food.

So how should the activities in the area of communicating the health benefits of food look like in order to obtain consumer acceptance? In addition to the precise selection of the target group, it is necessary to develop a message that will convince consumers that the functionality, i.e. the difference between a modified product with a health benefit and a base

product, has been achieved without violating certain limits of naturalness, which may mean the use of "artificial" ingredients, e.g. certain food additives, or the processing process too far from the ideas of traditional processing. However, these actions will still be ineffective if the carrier itself is considered by consumers to be of low health benefit or inviolable due to the tradition or commonness of consumption. The product development process must be accompanied by an assessment of the compliance of the concept, recipe and finally label and advertising with the relevant provisions of food law. In practice, the development of new healthy products should be handed over to a multifunctional team composed of experts from commercial and technical departments, and the compliance check itself should be performed at the stages of creating the product concept itself, developing a recipe and working on the label and other forms of communication.

In the context of the growing trend of paying special attention to health in the decision-making process regarding food purchases and the growing awareness of the dependence of health status on consumed food, based on the conducted qualitative research, it should be concluded that consumers of innovative and functional food most often associate that food with health related attributes, which prompts the conclusion that the marketing communication of functional products should primarily take into account the health related nature of this product category.

Summary

The conducted qualitative research aimed at identifying the attitudes of consumers towards innovative and functional food allows to state the relative identity of both types of food in the perception of the surveyed consumers, which is also confirmed by literature reports that indicate that the functional character of conventional food is obtained by adding certain ingredients with proven character. pro-health, or depriving food of ingredients that adversely affect the human body, i.e. by modifying the base product, resulting in a new product. The research has also proved that the phenomenon of food neophobia, which is still dominant among consumers, is constituted by insufficient knowledge on this subject and the accompanying skepticism as well as a lack of interest in purchasing this type of food. These observations

are also based on the opinion of the participants of in-depth group discussions about the insufficient visibility of this product category in retail, as well as its limited availability. The health related nature of functional food was more often present in the statements of women directly affected by the problems of diet-related diseases, which is confirmed by the results of the studies by Verbeke (2005) and Hepburn (2008).

The research clearly showed that the participants of in-depth group discussions perceived both innovative and functional food products in the context of their health related nature, which justifies the conclusion that in the field of marketing communication, attention should be focused on nutritional and health claims, which when made on individual product labels should have undergone a thorough analysis of legal requirements. It is also worth noticing that consumers accept the fact of removing certain ingredients/nutrients from food, rather than adding some, as well as consider the recommendations resulting from the perspective theory by Kahneman and Tversky (1979), indicating that people are more sensitive to likely losses than possible gains.

On the basis of opinions formulated by participants, it was also proved that innovativeness understood as the degree to which a person accepts new products relatively earlier than the average of members of a given community (Goldsmith and Hofacker 1991) or as a tendency to buy specific new products immediately after they appear on the market, earlier than other representatives of this segment (Cotte and Wood, 2004; Roehrich, 2004) is perceived as a component of human personality occurring together with such features as openness, tolerance, optimism, life satisfaction, while people with low tendency to accept innovation are usually pessimistic about the world, tied to tradition or thrifty.

Endnotes

¹ Survey from July 2014 conducted by TNS Polska for Carrefour Poland in the 5 biggest cities in Poland.

² To compare Gutkowska (2007).

³ TNS Global commissioned by Carrefour Polska.

⁴ The project "BIOŻYWNOŚĆ — innovative, functional products of animal origin" co-financed by the EU from the European Regional Development Fund under the Innovative Economy Operational Program. Contract number POIG.01.01.02-14-090/09-06 implemented in a scientific and industrial consortium, in which SGGW was one of the main contractors.

References

- 1. Annunziata, A. & Vecchio, R. (2013). Consumer perception of functional foods: A conjoint analysis with probiotics. *Food Quality and Preference*, 28(1), 348–355.
- 2. Arai, S. (1996). Studies on functional foods in Japan. *Bioscience, Biotechnology, and Biochemistry*, 60(1), 9–15.
- 3. Arai, S. (2002). Global view on functional foods: Asian perspectives. *British Journal of Nutrition*, 88(Suppl. 2), 139–143.
- 4. Bogue, J. & Ryan, M. (2000). *Market-oriented new product development: Functional foods and the Irish consumer*. Agribusiness Discussion Paper, 27. Cork: Department of Food Economics, National University of Ireland.
- 5. Choiński, W. (2018). Wpływ kampanii informacyjnych na znajomość systemów jakości żywności na przykładzie PQS. Praca doktorska SGGW.
- 6. Cotte, J. & Wood, S. L. (2004). Families and Innovative Consumer Behavior: A Triadic Analysis at Sibling and Parental Influence. *Journal of Consumer Research*, 31, 78–86.
- 7. Czapiński, J & Panek, T. (2015). *Diagnoza Społeczna 2015. Warunki i Jakość Życia Polaków*. Rada Monitoringu Społecznego.
- 8. De Jong, N., Ocké, M. C., Branderhorst, H. A. C., & Friele, R. (2003). Demographic and lifestyle characteristics of functional food consumers and dietary supplement users. *British Journal of Nutrition*, 89(2), 273–281.
- 9. Drywień, M. (2019). Rola edukacji żywieniowej w obalaniu mitów w żywieniu człowieka. In: K. Gutkowska & J. W. Adamowski (Eds), *Edukacja żywieniowa w teorii i praktyce* (pp. 81–88). Warszawa: Wydawnictwo SGGW.
- 10. Gatignon, H. & Robertson, T. S. (1985). A propositional inventory for new diffusion research. *Journal of Consumer Research*, 11(4), 849–867.
- 11. Goldsmith, R. E. & Hofacker, C.F. (1991). Measuring consumer innovativeness. *Journal of the Academy of Marketing Sciences*, 19(3), 209–221.
- Grunert, K. G., Lähteenmäki, L., Boztug, Y., Martinsdottir, E., Ueland, O., Aström, A.,
 Lampila, P. (2009). Perception of health claims among Nordic consumers. *Journal of Consumer Policy*, 32, 269–287.
- 13. Gutkowska, K. (2007). Zachowania konsumentów w kontekście teorii konfliktu niewspółmiernych skal wartości. In: Z. Kędzior Z. (Ed.), Konsument, Gospodarstwo Domowe, Rynek. Katowice: Akademia Ekonomiczna w Katowicach, Centrum Badań i Ekspertyz.
- 14. Gutkowska, K. & Kwieciński, P. (2016). Wartości związane z żywnością i żywieniem młodych Polaków. *Handel Wewnętrzny*, 6(365), 78–92.
- Gutkowska, K. & Ozimek, I. (2005). Wybrane aspekty zachowań konsumentów na rynku żywności – kryteria zróżnicowania. Warszawa: Wydawnictwo SGGW.
- 16. Gutkowska, K. & Ozimek, I. (2008). Zachowania młodych konsumentów na rynku żywności. Warszawa: Wydawnictwo SGGW.
- 17. Kahneman, D. & Tversky, A. (1979). Prospect theory: An analysis of decision making under risk. *Econometrica*, 47, 263–291.
- 18. Kozirok, W., Marciszewicz, E., & Babicz-Zielińska, E. (2016). Postawy i zachowania kobiet wobec żywności prozdrowotnej. *Studia i Prace WNEiZ US*, 43(3), 199–208.
- Kowalczuk, I. (2011). Innowacyjna żywność w opinii konsumentów i producentów. Warszawa: Wydawnictwo SGGW.

- 20. Kowalczuk, I., Gutkowska, K., Sajdakowska, M., Żakowska-Biemans, S., Kozłowska, A., & Olewnik-Mikołajewska, A. (2013). Innowacyjny konsument żywności pochodzenia zwierzęcego. Żywność: Nauka. Technologia. Jakość, 5(90), 177–194.
- 21. Lähteenmäki, L., Lampila, P., Grunert, K., Boztug, Y., Ueland, O., Aström, A. & Martinsdóttir, E. (2010). Impact of health-related claims on the perception of other product attributes. *Food Policy*. 35(3), 230–239.
- 22. Lampila, P., van Lieshout, M., Gremmen B., & Lähteenmäki, L., (2009). Consumer attitudes towards enhanced flavonoid content in fruit. *Food Research International*, 42(1), 122–129.
- 23. Lawson, R. (2002). Consumer Knowledge Structures: Background Issues and Introduction. *Psychology & Marketing*, 19(6), 447–455.
- Leathwood, P. D., Richardson, D. P., Sträter, P., Todd, P. M., & van Trijp H. C. (2007).
 Consumer understanding of nutrition and health claims: Sources of evidence. *British Journal of Nutrition*, 98(3), 474–484.
- 25. Lyly, M., Roininen, K., Honkapää, K., Poutanen, K., & Lähteenmäki, L. (2007). Factors influencing consumers' willingness to use beverages and ready-to-eat frozen soups containing oat b-glucan in Finland, France and Sweden. *Food Quality and Preference*, 18(2), 242–255.
- 26. Lynam, A. M., McKevitt, A., & Gibney, M. J. (2011). Irish consumers' use and perception of nutrition and health claims. *Public Health Nutrition*, 14(12), 2213–2219.
- 27. Martirosyan, D. M. & Singh, J. (2015). A new definition of functional food by FFC: What makes a new definition unique? *Functional Foods in Health and Disease*, 5(6), 209–223.
- 28. Mazurek-Łopacińska, K. (2003). Zachowania nabywców i ich konsekwencje marketingowe. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- 29. Nowak, S. (1973). Pojęcie postawy w teoriach i stosowanych badaniach społecznych. In: S. Nowak (Ed.), *Teorie postaw*. Warszawa: Wydawnictwo Naukowe PWN.
- 30. Olejniczuk-Merta, A. (Ed.) (2016). Konsumpcja w innowacyjnej gospodarce. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- 31. Olejniczak, T. (2018). Senior wobec innowacji produktowych wybrane aspekty. *Handel Wewnętrzny*, 3(374), 322–333.
- 32. Pachołek, B. (2019). *Produkty uboczne przetwórstwa owoców w projektowaniu żywności*. Poznań: Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
- 33. Poulsen, J. B. (1999). Danish consumers' attitudes towards functional foods. *Working Paper*, 62. Arhus, Denmark: MAPP.
- 34. Roberfroid, M. B. (2000). Defining functional foods. Functional foods, (9), 9-27.
- 35. Roehrich, G. (2004). Consumer Innovativeness: Concepts and measurements. *Journal of Business Research*, 57, 671–677.
- 36. Rogers, E. M. (1995). Diffusion of innovations. The Free Press.
- 37. Saba, A., Vassallo, M., Shepherd, R., Lampila, P., Arvola, A., Dean, M., Winkelmann, M., Claupein, E, & Lähteenmäki, L. (2010). Country-wise differences in perception of health-related messages in cerealbased food products. *Food Quality and Preference*, 21, 385–393.
- 38. Schumpeter, J. A.(1960). Teoria rozwoju gospodarczego. PWN.
- 39. Siro, I. et al (2008). Functional food. Product development, marketing and consumer acceptance: A review. *Appetite*, *51*, 456–467.
- 40. Tekień, A., Gutkowska, K., Zakowska-Biemans, S., Jóźwik A., & Krotki M. (2018). Using

- cluster analysis and choice-based conjoint in research on consumers preferences towards animal origin food products: Theoretical review, results and recommendations. *Animal Science Papers & Reports*, 36(2), 171–184.
- 41. van Trijp, H. C. M. & van der Lans, I. A. (2007). Consumer perceptions of nutrition and health claims. *Appetite*, 48(3), 305–324.
- 42. Verbeke, W. (2005). Consumer acceptance of functional foods: sociodemographic, cognitive and attitudinal determinants. *Food Quality and Preference*, 16, 45–57.
- 43. Williams, D. & Ghosh, P. (2008). Health claims and functional foods. *Nutrition & Dietetics*, 65, 89–93.
- 44. Witek, L. (2019). Zachowania nabywców wobec produktów ekologicznych; determinanty, model i implikacje dla marketingu. Rzeszów: Oficyna Wydawnicza Politechniki Rzeszowskiej.

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