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A comparative analysis of the determinants of behaviours of polish and german consumers aged 55+ in the innovative food market

Summary

The aim of the paper was a comparative analysis of behaviours of Polish and German consumers aged 55+ on the market of innovative food. The survey was carried out among 428 responds from the Pomeranian voivodship and the land of Brema. It was shown that social and cultural differences, despite the positive attitude of both populations towards innovative food, diversify their market behaviours. German respondents declare greater knowledge with regard to innovative products, faster and more often decide to purchase such products then the surveyed Poles. Additionally, they are characterised by a lower level of neophobia. For the Germans surveyed innovative food is a permanent and important element of every day meals, whereas Polish people eat such food occasionally. While buying innovative food German consumers are governed mainly by its influence on health and how convenient it is to use, whereas the Polish respondents take into account its price. The level of adaptation of the innovative food market to the needs of the consumers aged 55+ is regarded by Polish seniors as satisfactory or low, whereas the Germans considered it to be good and very good. Disproportions found in the survey, which concern the position of Polish and German seniors on the market of innovative food should be a signal to verify the product and marketing strategy of Polish producers in order to adapt their offer more accurately to the economic possibilities and limitations of this group of buyers in the country. Further marginalisation of this market segment, at the threshold of silver economy development, seems a serious mistake.

Key words: consumer, food, innovations.

JEL codes: L66, O31, O33

Introduction

A sphere of human life activity of existential significance is human nutritional behaviour, which affects proper development and health (Zabrocki 2015). Foodstuffs are special goods since they not only satisfy the most elementary of human physiological needs but also serve to satisfy various needs: individual and social, material and spiritual (Gutkowska, Ozimek, Laskowski 2001). Nutritional needs are a starting point for specific nutritional behaviours.

The literature provides numerous models enabling the classification and characterisation of factors determining the choice of foodstuffs (Fűrst et al. 1996). Most of the factors determining the choice can be assigned to one of 3 groups:

1. *factors associated with the product,* e.g.: its chemical composition, nutritional value, sensory attributes, and functional characteristics;
2. *factors associated with the consumer,* e.g.: demographic factors, metabolic condition of the body, psychological factors;
3. *environmental factors*, which include: economic factors, social factors, and cultural factors (Babicz-Zielińska 1999).

The presented groups of factors differently affect the human psyche, and result in the choice of particular products, and the rejection of others. In addition, the acceptance and choice of foodstuffs are affected by new trends in consumer behaviours, observed in the market, which, considering the promoted values, can be divided into 5 main categories:
1. pleasure (54.5%) – treating food as a source of pleasure and hedonistic sensations;
2. health (19.9%) – the perception of food in terms of positive effects on health;
3. convenience (16.8%) – the ease of use, and adaptation to a new lifestyle;
4. physicality (6.1%) – devoting one's attention to one's own appearance and physical and mental condition;
5. ethics (2.7%) – an interest in food which is manufactured in an environmentally friendly manner while respecting the laws of nature (Gutkowska et al. 2014).

In the rapidly developing food market, consumer interest in new generation products has been increasing (Zabrocki 2014). High saturation and unification of the food market force manufacturers to introduce new, innovative products on the market. This is aimed at better adjustment to consumer expectations and increasing the competitiveness of enterprises (Siro et al. 2008; Barrena & Sanchez 2012). In general, innovation in the food market can be understood as searching for, and finding, a market niche, i.e. such areas of activity which have not been previously made use of (Kim & Mauborgne 2005).

Drucker (2004) stresses that innovation is a discipline with its own rules, which involves constant work on processes, on a product, and on research into buyers' needs. With this in mind, Edward de Bono (2007) established a theory of lateral approach to the development of new products under the conditions of the food market. In his concept, the author stresses the need to shift activities to completely new areas and to develop products to meet yet-unsatisfied needs.

The contemporary food market is characterised by a relatively high innovation level, which is a result of the significant diversification of consumer expectations. They expect that food will not only satisfy their hunger but also hedonistic desires, and help them maintain a slim body, obtain or enhance vitality, save the time spent for preparing meals, or contribute to the preservation of the values of natural environment (Adamczyk 2010). More and more frequently, it is imperative for manufacturers to develop products with modified nutritional values and health-promoting qualities.

The success and rate of the diffusion of innovation in the market is determined, to a significant extent, by the level of "recognition" of a target consumer (Sojkin, 2003). Manufacturers of innovative food should take measures aimed at the identification of needs and expectations of various consumer segments in order to develop a "dedicated" product offering. At the same time, they need to bear in mind that when choosing foods and evaluating their innovation, consumers are driven by varied rationalism of the conduct, which is frequently of a selective nature (the theory of "X-efficiency") (Zalega 2012).

A group of consumers which in recent years has begun to attract the interest of food manufacturers is the elderly. According to demographic forecasts, the percentage of senior citizens in the total group of consumers in 2035 will reach approx. 27%, up from 16% in 2007 (Bondos 2013).

In marketing terminology, a senior citizen is a person aged 55+, who will cease their participation in the labour market, or has already retired. The age limit is sometimes shifted slightly further, to include women aged 60+, and men aged 65+. The elderly are an internally diversified community of consumers, which can be divided into the following groups: the youngest senior citizens (55-65 y.o.), mature senior citizens (66–70 y.o.), and the oldest senior citizens (70+ y.o.) (Kołodziejska 2012).

As regards consumers aged 55+, the problem lies in frequently ignoring and discriminating against them and not treating them as market participants. Many manufacturers still harbour popular beliefs and stereotypes which make them perceive an elderly consumer as a poor, passive, conservative, ill, passionless person with no will to live. Such opinions appear to be untrue as the economic reality contributes to changes in the image of an elderly consumer. In consequence, consumers aged 55+ are not grateful and passive buyers anymore. Their market activity in the struggle to express their identity and individuality has been on the increase. They search for products tailored to their individual and local needs. While purchasing food, they increasingly often pay attention to its quality, functionality or the convenience of use. They are traditionalists in their preferences, yet they are not conservative. They are perhaps not unquestioning enthusiasts of product innovations in the food market, but they are not opposed to them either. Their approach to innovation is not only determined by the advanced age, but also frequently by general environmental factors, including economic, social, demographic and cultural ones (Jeżewska-Zychowicz, Babicz-Zielińska, Laskowski, 2009 a; Zabrocki 2015). As a consequence, their behaviours and position in the innovative food market in various countries may vary and be very different in countries with a well-developed and mature innovative food market, such as Germany, from those in the countries in which this market is at the development stage, for example, Poland (Zabrocki 2010).

The aim and methodology of the study

The aim of the study was to comparatively analyse the behaviours of Polish and German consumers aged 55+ in the innovative food market. An empirical study was carried out using an original survey questionnaire. The study was carried out during a period from March to June 2016, and involved 428 respondents, including 212 Polish ones (R_p) from the Pomorskie voivodship area, and 216 German ones (R_g), from the state of Bremen. The study involved respondents of both genders, in three age groups: 55-65 y.o., 66-75 y.o., and over 75 y.o. The selection of the study population was deliberate and involved people who declared that they at least occasionally purchased innovative food products. The scope of the study covered, *inter alia*: the assessment of attitudes towards innovative food, respondents' knowledge about innovative food, the level of food neophobia in the respondents, the level of respondents' innovation, preferred forms and the frequency of purchase of innovative food, factors determining its purchase, and the adaptation of the innovative food market in Poland and Germany to the needs of respondents from both national groups. In the assessment of consumer attitudes towards innovative foods, a 5-point Likert scale was used. In order to assess the mode of conduct in the market of new food products, a scale of consumer innovation was used and the obtained results were referred to the E.M. Rogers' classical model of the diffusion of innovations (1971). For the determination of neophobic attitudes among Polish and German respondents, the Food Neophobia Scale (FNS) by Pliner and Hobden (1992), modified by Ritchey (2003), was used. As compared with the standard FNS which includes ten statements, two statements were removed from the scale ("Ethnic food looks too weird to eat", and "I will eat almost anything"). When reacting to the eight statements, respondents used a point scale from 1 to 7, which enabled obtaining of a total value for all statements ranging from 7 to 56 points. Having calculated mean values, point intervals were determined for 3 levels of neophobia: ≤ 13.1 points – low, 13.2÷30.9 points – medium, and ≥ 31 points – high.

Selected aspects of the behaviours of Polish and German consumers aged 55+ towards innovative foods in the light of own research

An important factor determining consumer choices and behaviours in the food market is their attitude, particularly including its behavioural component (Jeżewska-Zychowicz, Pilska 2007). A study into attitudes demonstrated that a high percentage of Polish respondents (78.6%) and 100% of German respondents had a positive attitude towards innovations in the food market. None of the respondents adopted a negative attitude, while 21.4% of Polish respondents had a neutral attitude. Such an attitude was mainly identified in men (83.2%) and in people over 75 years of age (91.5%). Most Polish and German respondents extremely agreed or moderately agreed with statements such as: "innovative products enrich the food market" (R_g- 84.5%; R_p-71.2%), "innovative food may have a beneficial effect on health" (R_g- 79.4%; R_p-53.8%), or "innovative products are convenient to use" (R_g-56.7%; Rp-77.6%). A slight percentage of Poles participating in the study, particularly those aged 55-64 y.o. (6.3%) and over 51 y.o. (9.1%), generally representing a neutral attitude, moderately agreed with the statement "most innovations in the food market are only superficial in nature".

In general, the positive attitude of Polish and German respondents towards innovative foods may be a positive signal for the future in terms of a subsequent development and increase in consumption (Jeżewska-Zychowicz, Babicz-Zielińska, Laskowsk 2009b); however, this does not clearly determine the actual willingness to consume innovative products. A disrupting element is the phenomenon of neophobia, involving anxiety and fear of tasting innovative food products, revealed at the moment of contact with them.

It was demonstrated that within the structure of Poles and Germans participating in the study, the level of neophobia is at an average level (R_p- 68.6%; R_g-66.1%). A high level of neophobia was typical of a higher percentage of Polish population, as compared with the Germans (R_p-14.6%; R_g-10.2%). At the same time, its low level was dominant in German respondents (R_p-16.8%; R_g-23.7%). The respondents' gender did not essentially differentiate the level of neophobia in both national populations. It was found, however, that in both Polish and German senior citizens, the level of neophobia increased proportionally to their age (compare with Table 1).

Table 1

Structures of population of Polish and German respondents because of the level of neophobia (in %)

Specification	The structure of the population due to the level of neophobia					
	Polish respondents			German respondents		
	high	average	low	high	average	low
Total	14,6	68,6	16,8	10,2	66,1	23,7
Gender						
Women	13,7	67,9	18,4	9,1	64,6	26,3
Men	14,6	68,2	17,2	10,4	64,8	24,8
Age groups						
55-65 y.o.	16,4	68,2	15,4	8,3	68,1	23,6
66-75 y.o.	20,2	67,2	12,6	9,8	70,0	20,2
over 75 y.o.	28,3	61,6	10,1	11,7	63,7	24,6

Source: own research.

An important element determining consumer attitudes and behaviours in the food market is consumer knowledge of the purchased and consumed products. The respondents' self-assessment revealed that German consumers declared deeper knowledge about innovative food products – a percentage four times greater than that of Poles (R_p-4.2%; R_g-16.3%) described it as "significant and comprehensive", while a percentage two times greater described it as "good but incomplete" (R_p-18.2%; R_g- 34.5%). Small, or very small knowledge in both populations was more frequently declared by men and senior citizens from the oldest age group (75+) (compared with Table 2).

In the process of diffusion of innovations in the food market, the innovation of purchasers themselves plays a significant role. According to K. Gutkowska (2011), this characteristic encourages an individual to approve of new products earlier than on average and to consequently direct their behaviours towards innovations. When carrying out a comparative analysis of the level of innovation of Polish and German respondents, it was found that Polish senior citizens participating in the study are more conservative and mistrustful in purchasing product innovations than their German counterparts. At the same time, their structure, due to the rate of approval of innovations, differs from the Rogers' model. The percentage of innovators (2.3%), early majority (25.2%) and late majority (24.6%) within the structure of Poles involved in the study is lower than the model indicator, while the percentage of laggards (28.5%) is almost twice as high. The group of German respondents (9.3%) included a percentage of innovators which was four times higher than the group of Polish respondents (2,3%); in addition, the percentage of the early majority is twice as high as the Rogers' model, which clearly indicates the higher level of innovation of this population (compared with Table 3).

Table 2

Self-assessment of the respondents regarding the knowledge about innovation on the food market (in %)

Assessment of knowledge	% of overall indication	
	Polish respondents	German respondents
Significant and comprehensive	4,2	16,3
Good, but incomplete	18, 4	34,5
I find it difficult to judge	34,6	26,2
Rather small and very fragmentary	26,7	14,3
Very small	16,1	8,7

Source: like in Table 1.

Table 3

Comparison of the study population because of the degree of innovation in relation to the classical model of Rogers (in %)

Attitude towards the desire to buy	Share in the structure of the population		Classical Rogers' model	
	Polish respondents	German respondents		
I buy new foods as soon as they appear in the store - I like to have the first new product	2,3	9,3	innovators	2,5
I buy a new product quickly, but after some thought	19,4	26,2	early adopters	13,5
I buy new foods after trying them for my friends and their positive opinions	25,2	30,6	early majority	34,0
I buy when most of my friends bought new products and evaluates them positively	24,6	25,7	late majority	34,0
I am reluctant to buy new food products	28,5	8,2	laggards	16,0

Source: author's construction.

An assessment of the differences in the preferences of Polish and German respondents for various forms of innovative foods demonstrated that the German study participants (83.2%) definitely more frequently than Poles (49.1%) prefer products from the group of functional foods with enhanced nutritional value, or devoid of ingredients with adverse effects on health, and more frequently choose foodstuffs with modified sensory characteristics. In turn, a higher percentage of Polish respondents (57.2%) than German respondents (43.9%) more eagerly purchase products from among convenient foods. Convenient foods are primarily chosen by respondents from the 55–64 y.o. age group, which may result from their constant participation in the labour market and the desire to save time and enjoy convenience while preparing meals.

When purchasing innovative foods, Polish study participants primarily take into account their price (87.3%) and sensory characteristics (61.9%), while for German respondents, the quality (77.9%) and the positive effect on health (70.2%) are most important. The significant role of the price in the purchase of innovative products by Polish senior citizens participating in the study may result from their definitely worse economic situation than that of their German counterparts. The level of income may also be the reason for the differences in the frequency of purchase of innovative foods by Polish and German respondents which was found in the course of the study. Polish senior citizens participating in the study most often purchase innovative food products several times a month (48.3%), while a similar percentage of German respondents (40.6) purchase them several times a week.

The factors determining consumer behaviour in the innovative food product market not only include the stage of development of the market and the attractiveness of the portfolio of the offered products, but also the degree of its adaptation to the buyers' expectations and needs. The level of the adaptation of the domestic innovative product market to the actual needs of the buyers was assessed by most German senior respondents as good (64,1%) or very good (20.4%); Polish respondents assessed it as satisfactory (49.7%). Almost 25% of Polish respondents believe that this level is low (23.2%).

Conclusions

The differences in behaviours of Polish and German consumers aged 55+ in the innovative food market, demonstrated in the article, appear to be a result of many factors, including mindset, economic situation and market position of both populations.

One of the key factors differentiating behaviours of both populations in the innovative food product market appears to be financial situation. This is definitely more favourable for German senior citizens than for Polish ones, which seems to affect the opportunity for purchasing and the frequency of purchase of numerous product, including innovative ones. In spite of this, almost 80% of Polish senior citizen respondents have a positive attitude towards product innovations in the food market. The fact that their knowledge about innovative foods and the frequency and rate of its purchase are smaller than those in the German study participants is, certainly, not only a consequence of their mindset or even of a difficult economic situation. The demonstrated higher market activity and the well-established position of German senior citizens in the innovative food market results, to a significant degree, from their greater experience in this market. Innovative food products appeared in Germany definitely earlier than in Poland. Nowadays, the German market in this regard is mature, while in Poland it is at the stage of development.

An important issue affecting the respondents' behaviours in the innovative food market is the degree of the adaptation of this market to this group of customers. While in Germany the segment of the elderly is the centre of attention of food manufacturers and marketing, in Poland it appears to still be underestimated. This requires a paradigm shift in the approach of Polish enterprises to senior citizens. In the economy of the "silver age", innovation in the food market in Poland should also be characterised by the innovation of measures taken by food manufacturers in order to appeal to the elderly consumers and adjust their offerings to the needs and capabilities of this group of buyers. It needs to be stressed that these measures cannot be mere image-building activities or a result of the manifestation of the idea of the manufacturers' "social responsibility", but, above all, they should be the expression of their market maturity which should help them perceive consumers aged 55+ as a significant and, what is most important, prospective and profitable market segment. This represents new challenges facing manufacturers as regards the strategy of production and marketing. The need for the development of nutritional education among the elderly is also of significance in this regard.

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Analiza porównawcza uwarunkowań zachowań konsumentów polskich i niemieckich w wieku 55+ na rynku żywności innowacyjnej

Streszczenie

Celem badania była analiza porównawcza zachowań konsumentów polskich i niemieckich w wieku 55+ na rynku żywności innowacyjnej. Badanie ankietowe przeprowadzono wśród 428 respondentów z rejonu województwa pomorskiego i landu Bremy. Wykazano, że odmienność społeczno-kulturowa, mimo pozytywnej postawy obu populacji wobec żywności innowacyjnej, różnicuje ich zachowania rynkowe. Respondenci niemieccy deklarują większą wiedzę dotyczącą produktów innowacyjnych, szybciej i częściej decydują się na ich zakup niż badani Polacy. Cechuje ich przy tym niższy poziom neofobii. Dla badanych Niemców żywność innowacyjna jest stałym i ważnym elementem codziennego żywienia, natomiast Polacy spożywają ją okazjonalnie. Przy zakupie żywności innowacyjnej konsumenci niemieccy kierują się głównie jej wpływem na zdrowie i wygodą w użytkowaniu, zaś respondenci polscy ceną. Stopień dostosowania rynku żywności innowacyjnej do potrzeb konsumentów w wieku 55+ seniorzy polscy uznali za zadowalający lub niski, zaś niemieccy za dobry i bardzo dobry. Stwierdzone w badaniach dysproporcje pozycji seniorów polskich i niemieckich na rynku żywności innowacyjnej powinny być sygnałem do weryfikacji strategii produktowej i marketingowej producentów polskich celem jej lepszego dostosowania do możliwości i ograniczeń ekonomicznych tej grupy nabywców w kraju. Dalsze marginalizowanie tego segmentu rynkowego, u progu rozwoju srebrnej gospodarki, wydaje się być poważnym błędem.

Słowa kluczowe: konsument, żywność, innowacje.

Kody JEL: L66, O31, O33

Сопоставительный анализ обусловленностей поведения польских и немецких потребителей в возрасте свыше 55 лет на рынке инновационных пищевых продуктов

Резюме

Цель изучения – провести сопоставительный анализ поведения польских и немецких потребителей в возрасте свыше 55 лет на рынке инновационных пищевых продуктов. Опрос провели среди 428 респондентов из района Поморского воеводства и земли Бремен. Выявили, что социально-культурное отличие, несмотря на положительное отношение обеих популяций к инновационным продуктам питания, дифференцирует их рыночное поведение. Немецкие респонденты заявляют о своих более высоких знаниях, касающихся инновационных продуктов, быстрее и чаще решаются купить их, чем опрошенные поляки. При этом для них свойствен более низкий уровень неофобии. Для опрошенных немцев инновационные пищевые продукты – постоянный и важный элемент ежедневной пищи, тогда как поляки потребляют их иногда. При покупке инновационных продуктов питания немецкие потребители руководствуются в основном их влиянием на состояние здоровья и удобством в применении, польские же респонденты – ценой. Степень приспособления рынка инновационных пищевых продуктов к потребностям потребителей в возрасте свыше 55 лет польские пожилые люди сочли удовлетворительной или низкой, тогда как немецкие – высокой или очень высокой. Выявленные в опросах расхождения в отношении пожилых лиц в Польше и Германии на рынке инновационных продуктов питания должны быть сигналом к верификации продуктовой и маркетинговой стратегии польских производителей для лучшего приспособления к экономическим возможностям и ограничениям этой группы покупателей в стране. Дальнейшая маржинализация этого сегмента рынка, на пороге развития «серебряной экономики», представляется серьезной ошибкой.

Ключевые слова: потребитель, пищевые продукты, инновации.

Коды JEL: L66, O31, O33

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