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<https://doi.org/10.26366/PTE.ZG.2017.78>

The Dimensions of Enterprise Innovation and Selected Trends on the Food Market

Abstract

Changes are occurring on the food market which are shaping the new face of enterprises which operate in that market. The bloom of the food sector in Poland, as well as its expansion, is noticeable due to its innovation, among other things. Specific challenges which face modern enterprises on the food market come from technological, economic and social spheres. The effect of those achievements are innovations which are the consequences of transformations taking place in the area of products, processes, marketing and organizational activities. Innovations are helping to create new products, processes, marketing and promotion activities. Product innovations should be recognized as a leading direction of innovation development in the food industry. In that context, the direction of changes in consumption should be considered as an important issue and one that requires further observation. The key role of enterprises involved in the food market is a skillful recognition of needs raised by consumers as well as specific segments and their satisfaction. Entrepreneurs should be aware that knowledge of the market and of consumers decreases the risk of misunderstanding customers' needs and increases the chances of success. Leading directions of innovation include low-processed and pro-health products. The sector of functional convenience food is growing rapidly. There are also proposals for products that meet specific needs raised by consumers relating to their diet or lifestyle choices. Trends determine the development of innovation. We can be sure that supply of new products will never run out because the desire to differentiate from other producers, and fulfill the expectations, requirements and demands of their consumers will be an inspiration for their development.

Keywords: innovation, enterprise, food market, consumers trends

Wymiary innowacyjności przedsiębiorstw a wybrane trendy na rynku żywności

Streszczenie

Na rynku żywności zachodzą zmiany kształtujące nowe oblicze przedsiębiorstw związanych z tym rynkiem. Obserwuje się rozkwit sektora spożywczego w Polsce oraz jego ekspansję na skutek zmian, m.in. w zakresie innowacyjności. Specyficzne wyzwania, z jakimi mierzą się współczesne przedsiębiorstwa na rynku żywności leżą w obszarze technologicznym, ekonomicznym jak i społecznym. Efektem owych osiągnięć są innowacje, których następstwem są dokonujące się przeobrażenia w obszarze produktów, procesów, działań marketingowych jak i organizacyjnych. Innowacje kształtują nowe oblicze produktów, procesów, marketingu czy promocji. Za dominujący kierunek rozwoju innowacji w przemyśle spożywczym uznać należy jednak innowacje o charakterze produktowym. W tym kontekście za ważne zagadnienie, wymagające obserwacji przez przedsiębiorstwa funkcjonujące na rynku żywności, należy wskazać kierunki zmian w konsumpcji. Rolą przedsiębiorstw związanych z sektorem żywnościowym jest umiejętne rozpoznanie potrzeb zgłaszanych przez konsumentów, specyficzne segmenty i ich zaspokojenie. Przedsiębiorcy powinni mieć świadomość, że znajomość rynku i występujących na nim konsumentów zmniejsza ryzyko niezrozumienia potrzeb konsumentów i zwiększa szanse na sukces. Do rozwijających się kierunków innowacji można zaliczyć produkty niskoprzetworzone i prozdrowotne. Szybko rośnie segment żywność funkcjonalnej, wygodnej. Powstają też propozycje produktów, które spełniają szczególnie wymagania zgłaszane przez konsumentów względem diety czy stylu życia. Trendy determinują rozwój innowacji. Możemy być przekonani, że nigdy nie zabraknie nowych produktów,

bowiem chęć wyróżnienia się i spełniania oczekiwań, wymagań i żądań konsumentów będzie inspiracją dla ich rozwoju.

Słowa kluczowe: innowacje, innowacyjność, przedsiębiorstwo, rynek żywności, trendy konsumenckie

JEL CODE: O31, E20, B22

Introduction

Many demographic, economic and social trends which can be observed around the world exert considerable influence on production, consumption and consumer behaviours. These aspects, especially production and consumption, are characterised by increasing specialisation and segmentation, which are usually oriented to niche markets. In this context production takes responsibility for the needs of consumption, such as the search for goods meeting different needs, the selection, use and disposal as well as anticipation of the demand for these goods. These changes are the resultant of individuals and organisations and in consequence, they affect entire communities.

Innovations are a developing issue in economic sciences. Following the OECD methodology proposed by the authors of the Oslo Manual¹ (2006) (based on the criterion of objectivity), innovations are identified in the areas of product, process, marketing and organisation. New solutions initiate changes, which result in development. Innovative activity and the character of innovation (breakthrough innovation, incremental innovation) are the elements that are strictly related to technology and they affect the competitiveness of market entities.

Enterprises' competitive strategies are also considerably influenced by changes in consumer activity, especially by increasing consumers' awareness and knowledge of products and services. Product innovations are a leading trend in the food industry in the context of increasing significance of innovativeness². Consumer trends, i.e. trends of changes in consumption, are an important issue, which requires observation by enterprises operating in the food market. This powerful industry is increasingly often powered by consumers rather than producers. Understanding the final consumer is the basis of effective marketing. Enterprises operating in the food sector need to skilfully recognise the needs of consumers and individual segments and to satisfy them with available resources (financial resources, physical resources, human resources), competence and good management. These are key actions which need to be taken by enterprises to be successful. Entrepreneurs need to collect information about the market and its participants. However, the observation of economic practices shows that tasks related with these actions are neglected. The knowledge of the market and consumers as well as consumer orientation, which involves the recognition of consumers' expectations concerning food, reduces the risk of misunderstanding consumers' needs and increases the chance for success. World trends stress the role of the consumer, who is the shopper, purchaser and user of a particular good. Consumers have increasing influence on products and services. These individuals have different functions in market processes and they are a valuable source of information about the future of the market.

The aim of this article is to present selected consumer trends identified in the context of considerations concerning innovation and innovativeness of enterprises in the food industry.

¹ The most common methodology in the European Union, an international standard in research on innovation and its effects used in statistical research of the Central Statistical Office in Poland.

² The research findings given in the report of the World Bank Group (2015) indicate that process innovations in enterprises were implemented half as frequently as product innovations. Marketing and organisational innovations were least frequently implemented. According to the authors of the report, this means that companies do not fully appreciate the potential of productivity related with the improvement of business processes, increasing marketing skills and strengthening organisational practices.

The author of the article emphasised selected problems related with the research subject, indicated the consumer's role in creation of innovation and presented selected trends of changes in consumption. The considerations are based on studies of domestic and foreign publications, scientific journals and the Internet. The author of the article also used her experience gained while preparing the opinion about the innovativeness of enterprises in the food industry.

Selected problems of the innovativeness of enterprises in the food industry

In reference publications innovations are regarded as a necessary element for effective operation of an enterprise, which is significant to its value and "which is strictly correlated with the company's competitiveness, being its determinant" (Szymański 2013, p. 81). Innovation is the entity's capacity to develop, implement and absorb new solutions, ideas and methods (Porter 1990, Drahoš, Maher 2004). When considering innovation it is necessary to mention the inextricably linked concept of innovativeness, which refers to the implementation of innovation as novelty³. According to the glossary of terms concerning Innovation and Technology Transfer (Matusiak 2011, p. 119), innovativeness is "a feature of business entities or economies, which refers to their capacity to create, implement and absorb innovation. It involves active engagement in innovative processes and taking actions leading to innovation".

By active engagement in innovative processes and taking actions leading to innovation entities can gain measurable economic benefits, i.e. make profits, which will increase their significance and authority in the market environment. Actions leading to innovation bring benefits not only to entities but also to regions as they cause development of the national economy based on knowledge and innovative policy (Drucker 1992, Janasz 2003). This trend can be observed both in developed and developing countries (World Bank report)⁴. Since 2014 Poland has been classified as an economy oriented to effectiveness and innovations⁵. As J. Eaton and S. Kortum (1997) indicate, maintaining the competitive position of enterprises and entire economies on the contemporary market requires an adequate level of innovation and rate of its development in combination with technology. This depends on an entity's or country's resources and whether they can be used for making innovations. Market entities' passive attitude to innovation may inhibit their development (they become less competitive) and the development of the region and in consequence, the development of economy.

Enterprises operating in the food market are oriented to constantly increasing competition. In consequence, they prepare and implement different product innovation strategies. This results in products which have different degrees of novelty and originality. It is very difficult to be innovative in the food sector. Enterprises make primary and secondary innovations, the latter being much more common. Incremental innovations prevail over radical ones. This situation is caused by the willingness to copy and adopt "proven" steps taken by market leaders. However, these actions are not void of creative elements, because they are planned, regularly modified and improved. D. Sobotkiewicz and P. Waniowski (2006) stress that completely new products amount only to about 10% of all innovations. These innovations require that their authors have strong research bases.

³ Innovative Economy Operational Programme (IEOP) 2007-2013, p. 5.

⁴ <http://www.worldbank.org/pl/news/press-release/2012/02/09/innovation-and-technology-can-help-sustain-fast-growth-in-emerging-europe> (accessed on 28 November 2016).

⁵ According to the data published in 2015 by the Polish Agency for Enterprise Development (PARP) in the "Report on the Sector of Small and Medium Enterprises in Poland between 2013 and 2014", innovation-oriented countries were defined as the countries which may maintain high salaries and adequate living standard only when enterprises can compete by offering new, specialised products and other innovative solutions. In 2014 Poland was classified as an effectiveness-oriented economy. Analyses of this report provided results for innovation-oriented countries as the group of countries which Poland wanted to join.

It is necessary to stress the fact that the food sector in Poland could not flourish or expand without changes in the innovativeness of the entities operating in this market. As far as the time perspective is concerned, the development of the industry started earlier, even as early as the 1990s, when the political system changed – the totalitarian system was abandoned in favour of democracy and market economy. This change involved numerous transformations, and adjustment to new conditions and requirements at the national, regional and local level. Poland opened to the world. Another important step was Poland's accession to the European Union (EU). Joining the EU structures and economic system resulted in changes, such as progressing specialisation of production, high quality of food products, diversification of production and markets, changes in the employment structure, processes of concentration and consolidation, new opportunities to acquire funds under external financing of investments.

Innovativeness (the development and implementation of innovations) is considered to be the driving force of economic growth. It gives a possibility to achieve high standards in business (efficiency and profitability) and improves the quality of life. Many companies are not usually ready for this undertaking and the risk it involves. This thesis is confirmed by the results of research conducted on entrepreneurs – innovativeness is of little significance to gaining competitive advantage (World Bank Group 2015).

The significance of the consumer to innovation

21st century consumers are demanding because their choice of food products depends on considerably diversified factors. It is not only the product appearance and taste that matter but also the attributes which may create additional value for consumers (a combination of benefits). Consumers are increasingly often interested in the processes of production and distribution and they want to know not only how the product was made but also which ingredients were used for its production. They pay particular attention to the origin of these ingredients and concentrate on services provided before, during and after the sales. Consumers' increasing interest in innovation is an example of evolution in the attitude to innovations (Gutkowska 2011, Pee 2016).

K. Gutkowska (2011) and T. Zalega (2015) perceive consumers' innovativeness as a specific trait of their personality and the consistency of action. It is the capacity and readiness to purchase new products and services. Consumers stimulate the industry to make changes and improve products. In a way they initiate changes in the products offered. More diversified and better educated consumers, who expect higher quality standards, force entrepreneurs to notice certain individualism, which is so difficult to achieve nowadays.

Consumers' market behaviours are a strong determinant, which is taken into consideration in the innovation creating process (Gutkowska 2011). The most active and inventive product users are willing to take part in the creation process. They show their big interest in the product (Kall, Sojkin 2008). Taking clients' needs into consideration, maps of the consumption chain can be a useful tool for creating innovation, because they contain important information about consumers' needs and preferences. This tool is the solution which entrepreneurs can use when choosing supported innovation (based on data collected and analysed). This is an important element strengthening the formulation of trends in the innovativeness policy within a business entity. Innovation maps can be widely used, all the more so that they do not require considerable substantive and organisational outlay.

New needs are constantly generated in the market environment. There is a tendency to shorten the life of products, which is undoubtedly caused by the development of innovations and implementation of new technologies. The vector of the "objects of consumers' desire" is shifted towards new impressions and experiences (Goszczynska, Górnik-Durose 2010). The advantage of this tendency is the fact that it favours the idea of sustainable consumption. Consumers' increased attention to social, economic and environmental issues makes companies

build their credibility and improve their image offered to clients and business partners. What becomes increasingly important in the generation of sustainable products and services is open innovation combined, for example, with the concept of sustainable consumption (Arcese et al. 2015). However, the promotion of sustainable consumption is only one of possible trends in innovation. Many innovations lead to consumer attitudes. According to M. R. Salomon (2006), innovation can be positively received (regardless of the fact how significant the changes in behaviour caused by innovation may be) on condition that it is compatible with consumers' lifestyle, giving them an opportunity to try products, which should be simple and noticeable and they should provide a better offer than other goods in a particular branch.

Many large companies start using e-commerce business-to-consumer platforms to create new, more innovative and marketable products together with clients. Pee (2016) stresses the fact that empirical evidence for the client's influence on creation is still rare (open innovations, crowdsourcing – a form of consumers' integration in the process of creating values). The idea of creation can be stronger when it does not involve the decision to create. Participation in the creation of a product at the design stage may affect its innovativeness, whereas at the stage of commercialisation it may have stronger influence on the sales of a product. However, we can expect that in the future companies will increasingly engage clients/consumers in the process of product creation.

Selected consumer trends identified in the context of innovation

The analysis of consumer trends is a tool that enables observation of market processes, e.g. changing lifestyles, habits and cultural trends (Mróz 2013). Trends provide inspiration for the development of innovative solutions (e.g. concerning utility and quality traits of products or managing procedures applied by food producers), processing and adjustment of products in response to consumers' requirements and needs (both real and imaginary needs; existing and created needs). Trends of changes in consumption influence the development of production in terms of the innovativeness of market entities. There are numerous phenomena observed in the area of consumption and the rate of consumer changes is very high. In view of these facts it is natural that consumer trends need to be observed and investigated.

One of the interpretations generally defines trends as the "process of change, which is approached from the psychological, economic or social perspective. It may have short-term or long-term character and regional or global range" (Vejlgaard 2008, p. 9). According to B. Senauer, E. Asp, J. Kinsey (1991, pp. 58-59), "the trend indicates general movement or the direction of changes in attitudes and behaviours, which is characterised by strength and durability in relation to changes in the course of general patterns of consumption". The authors defined it as a mature fashion, which was tried, accepted and adopted by a considerable number of people. When we refer this approach to consumer behaviours, we can say that it concerns particular directions of changes in "model" consumers' lifestyles and it acts objectively, regardless of one's will and awareness. Trends in consumption are usually caused by the broad influence of different environmental factors, e.g. economic, social, political and technological factors, on purchasers' behaviours. In consequence, this leads to changes in patterns and models of consumption (Zalega 2013). The direction of a trend can be measured by means of indicators, measuring scales and indexes (Mróz 2013). It is characterised by certain momentum and durability (Kotler, Keller 2012). Some fleeting fashion trends change into trends lasting a few decades or even centuries.

Enterprises develop their activity under heavy pressure of time. A. S. Clausi⁶ (1999) stressed the fact that sometimes a product was ahead of its times and consumers did not ac-

⁶ Clausi presented three stories describing the introduction of new food products to the American market. He gave three examples of products which satisfied or did not satisfy consumers' expectations. These were: break-

cept it although it was very good technologically and consumers' needs and requirements were well recognised. Innovations which clients do not accept at a particular time may be abandoned for many years / However, later other companies may successfully launch them, having gained experience and drawn conclusions from earlier failures.

Considerable transformations occurring around the world favour the fragmentation of consumption and development of trends, which rapidly become absorbed in different geographical zones and subsequently, they are processed and differentiated. Enterprises must react to challenges resulting from trends. When a trend finds a susceptible ground, it is accepted under specific macroeconomic conditions. Then it is strengthened and begins to develop, being surprisingly strong and popular.

In view of the considerations presented in this elaboration it is necessary to pay attention to the significance of strongly outlined trends of changes in consumption, which developed in combination with product innovations. The following trends in food development are presented below: functional foods, convenience foods and minimally processed foods.

Functional foods. Scientific research centres and agri-food enterprises conduct investigations to improve the nutritional value and sensory quality of products offered on the market. One of the aims of these investigations is to develop the technological processing methods which will give a possibility to offer new quality, health-promoting products on the market. The food products which were specially designed, are characterised by proven (documented) health-promoting values and have the form of normal food consumed as a regular diet component are defined as functional foods (Krygier 2011). Functional foods appeared in the mid – 1980s in Japan, where research on these foods started and later it resulted in industrial production (Janicki 2001). Japan was the first country to launch a new category of food with positive effect on human health under the FOSHU programme (Food for Specified Health Uses) (Menrad 2003). Educational actions and promotional campaigns aimed at increasing consumers' awareness and developing their positive attitudes to food favour the interest in functional foods.

Functional foods are classified according to specific ingredients. The following categories are distinguished: enriched food, high fibre food, probiotic food, low energy food, energising food and low cholesterol food (Academy of Nutrition and Dietetics, USA⁷). Functional foods have caught on in the US and Europe (the United Kingdom, France, Germany, the Netherlands, Poland). The demand for this food can be observed in the regions where people have higher income. Due to the definitions of functional foods and due to the fact that they comprise a wide range of foods with bioactive components companies often use them in their marketing actions. However, sometimes they are mistaken and misunderstood by consumers (Florea et al. 2016), as was proved by the results of other European studies (Menrad 2003). There is a trend in communication between enterprises and the market – companies give nutritional information on product labels. Thus, consumers can read about the health-promoting properties of food and see special symbols, which help them choose this food.

Innovations concerning functional foods can be observed in many branches of the food industry in Poland. They are a response to consumers' interest, growing awareness and attitudes to health-promoting values as well as their health care (Gutkowska 2011, Soboń 2015). Innovations in this food category consist in offering products containing substances of high nutritional value and characterised by specific properties. Apart from changes in the nutritional value, the offering of these products usually involves technological and sensory changes. Producers of baked goods have seen the possibility of health benefits resulting from the consumption of a particular type of food. Innovative production technologies based on whole-

fast cereals with lyophilised fruit (strawberry, peach and bilberry), Gainsburger – dog food similar to a hamburger, Tang Breakfast Beverage – a granulated breakfast drink.

⁷www.eatrightpro.org. (accessed on 17 November 2016).

meal flour and functional additives (e.g. bran, sunflower seeds, pumpkin seeds, sesame seeds, spelt, flax seeds) improve the health and baking value of baked products (Borowska, Rejman 2011). Crispbread producers increasingly often promote products with natural ingredients, e.g. buckwheat, evening primrose or inulin. The extrusion technique combined with different ingredients, e.g. black caraway, young oats, bran or buckwheat hulls, used in the technological process enable crispbread producers to make high-grade, ready-to-eat products, which are void of the possible effect of antinutrients. Bread products with dietary fibre, enriched with cultures of lactic fermentation bacteria, oily seeds and calcium are classified as functional baked products with health-promoting properties (Jeżewska-Zychowicz 2015). A wide range of meat products are also classified as functional foods as they combine probiotics, prebiotics, dietary fibre and inulin (Kozan et al. 2012). The dairy sector has also made considerable achievements in this area. There are low-lactose products (due to children's allergies) and products enriched with Omega-3 fatty acids available on the market.

The demand for functional foods will grow not only as a result of consumers' increasing health and nutritional awareness but also due to the support provided by scientific research institutions to entities in the food sector (Acherowicz 2009, Tomaszewska et al. 2014). However, the lack of a precise approach to the term of functional foods and consumers' difficulties identifying these products may be a strong barrier to their development.

Convenience foods. Another strong and well-established trend determining the development of innovations is convenience foods. Since the 1970s the production of convenience foods and ready-to-eat foods has been increasing all over the world (Grunert 2012). "Convenience foods are the food products which require minimal work and short preparation time to be ready for consumption" (Janicki 1993, p. 228). Convenience foods offered on the market are usually processed and preserved food products, which usually require minimal and short technological preparation (e.g. heating, defrosting, diluting) at home or at work before they are ready to be consumed. The foods can be quickly prepared due to the lack of time limits, place limits and the context of the situation in which they will be consumed. They can be used as the main component of a meal or a snack eaten during the day, depending on consumers' approach and acceptance.

In reference publications products categorised as convenience foods are classified according to their readiness for consumption, the method of preservation and the approach to package (Świdorski 2003, Górska-Warsewicz 2007). These issues are crucial to the convenience of food preparation, which is an important determinant affecting the choice of food (Stephens, Pollard, Wardle 1995, Scholderer, Grunert 2005, Adamczyk 2010). Consumers are satisfied with convenience foods, including various products available in bulk as well as premium products (easy-to-use semi-prepared foods, frozen foods, instant foods, fast foods, snacks, takeaway foods). The results of the research conducted by N. Kahma et al. (2016) show that there are national similarities and differences in convenience foods. The results confirmed that saving time was the main motivation for the consumption of convenience foods. The influence of other aspects analysed in the study was dispersed and factors such as low costs, the health and taste consequences of convenience foods and the convenience of consumption differed in the group of countries under analysis. In four Scandinavian countries (Denmark, Finland, Norway and Sweden) women used less convenience foods than men. In Finland and Norway older respondents used this type of food less often than young ones. People living alone were the most frequent consumers of convenience foods. Education and occupation were of low significance to the consumption of convenience foods. The study conducted by A.I.A. Costa (2003) on Dutch people aged over 55 years showed that the respondents used convenience foods to save the time necessary for preparation of a meal and because they did not have cooking skills. Greater confidence and higher self-esteem resulting from the prepara-

tion of one's own meal from convenience foods were significant factors determining the choice of these products.

According to G. Adamczyk (2010), the development of this segment of food in Poland is significantly determined by macroeconomic variables, such as favourable economic climate, development of market economy, rich and diversified market offer, adoption of consumption models from Western European countries, development of technological innovations (development of food preservation methods, increased food processing, new systems controlling the quality of products, quality of organisation and food safety). Apart from the macroeconomic factors, the popularisation of convenience foods can also be attributed to consumers, who underwent transformation. There have been changes in consumers' lifestyles, more intense contacts with other cultures, better education and increased nutritional awareness. The value of time has increased and the living standard has improved. The income of socioeconomic groups has increased and become diversified. There have been changes in purchasing preferences, freedom of choosing and purchasing a variety of products available in different forms in retail outlets of various formats. Consumers have manifested diversified expectations concerning the offer, purchasing method and consumption of products. There have been changes in the structure of households. People in Poland have become more active economically, e.g. in their leisure activities, proportions between working time and free time, occupational activity, family model, availability. The increasing pace of life, convenience, individualisation of consumption and multitasking favour the search for these products and their consumption.

Minimally processed foods. Consumers are interested in the degree of food processing (Świdorski 2003, Chen, Anders, An 2013, Sillani, Nassivera 2015). However, an ordinary consumer finds it difficult to distinguish between food categories and highly or minimally processed products, for example, lasagne (pasta with cheese) as a ready-to-eat product, dried pieces of apples, tomatoes or mushrooms, brown bread or home-made soup (sold in jars or cartons). According to the spokesman of the Academy of Nutrition and Dietetics (USA), the largest organisation of food and nutritional experts, when we talk about processed food, it is necessary to define processing. Depending on the degree of processing, we can distinguish the following groups, ranging from minimally to ultra-high processed foods (Wolfarm 2016):

- minimally processed foods, e.g. vegetable salads, roasted nuts, simply prepared products, refined for consumer convenience;
- highly processed foods (peak to lock), e.g. tinned tomatoes, frozen fruit and vegetables, tinned tuna; these products 'block' the nutritional value and freshness;
- foods with additives improving flavour and consistency, such as sweeteners, seasonings, oils, colouring agents and preservatives, e.g. spaghetti sauce sold in jars, salad sauces, cakes;
- ready-to-eat foods, e.g. crackers, muesli and cold cuts (highly processed products);
- ultra-highly processed foods, e.g. frozen pizza and other frozen or ready-to-eat meals, which only require heating in a microwave oven.

It is thought that the technology used in the food industry causes health problems. Consumers have a low opinion about processed food because it causes a wide range of diseases of civilisation, circulatory system diseases (e.g. hypertension) and higher incidence of type 2 diabetes (Wolfarm 2016). The success of new technologies depends on consumers (Chen, Anders, An 2013). S. Sillani and F. Nassivera (2015) stress that consumers stimulate food innovations, which result in improved food quality and nutritional value. They have critical attitude to the technologies, which in their opinion, involve excessive modification of the original product and may be dangerous to health and the natural environment. Consumers' increased awareness results in higher demand for the food which is thought to be good for health. On the other hand, it causes consumers' reduced interest in the food which they think is void of positive effect on health or which may have negative effect.

Consumers commonly search for unique values so as to be different from other people. While shopping more and more consumers read information on product labels. There is growing significance of the best-before date among the factors that are decisive to the choice of products. Consumers want original and natural products with a relatively short best-before date. There is a conflict of expectations here. This issue can be easily illustrated with traditional, regional products, which are offered as fresh products, whereas their best-before date is extended (Nicoli 2012). Consumers need to face difficult nutritional choices and make a decision or answer the question whether they prefer highly or minimally processed food.

The terms 'minimally processed' or 'low processed food' can be defined in different ways. In the context of more conventional technologies, minimal processing consists in using the technology which gives a possibility to retain the nutritional and sensory values of food by making it less dependent on heat as the chief preserving procedure (Menichelli et al. 2012). It is interesting to observe the fruit and vegetables category to analyse the market offer referring to this trend of innovations. In Poland we can see a rising trend in the consumption of minimally processed fruit and vegetables, which follows the tendency observed in Italy. Studies on minimally processed foods concentrate on their microbiological quality, safety, processing and packaging (Allende et al. 2006, Alves de Azeredo et al. 2011).

Consumers' interest in minimally processed foods is the result of their evolving habits, nutritional behaviours and attitudes. This trend will be becoming more intense due to the emphasis on food quality and safety, increasing importance of the food origin and methods of production. Many consumers want 'genuine' products and authentic food. They search the market for as natural forms of products and meals as possible within a particular geographical and economic range. Therefore, producers need to show that they particularly care about the regulation and communication of methods of production, face consumers' apprehensions and retain market credibility. As results from the analysis of niche markets in Poland, such as the organic food market and the market of regional and traditional products, certification and labelling systems combined with marketing communication can be indicated as effective instruments causing positive changes in consumers' behaviours.

In view of the changes and consumer trends (both those presented in the article and a wide range of other trends observed by researchers) on the food market it is important to ask the question which trends will be the most important in the food industry in the future. As we observe food producers, we can see that they approach the issue of food quality by taking greater care of the ingredients, materials, methods and technologies of production as well as convenience (simplicity and easiness of use). They use various research methods to learn more about contemporary consumers and understand their behaviour. Online shopping for food is another developing tendency, but its share is still low in Poland. It is a challenge for the future. The author of the article is concerned about the value food enterprises and dealers offer to consumers to be successful on the market and what sort of products a food-conscious consumer will choose. These trends will develop in the future and they will be powered by the demand of consumers, whose interest, awareness and requirements concerning food and nutrition are growing. It is interesting and valuable to continue considerations concerning consumers and ask them the questions which types and groups of products they would like to consume in 5 or 10 years and how they see shopping in the future. These issues will be discussed in separate studies determining trends in food consumption from the consumer's perspective.

Conclusion

The issue of innovations and innovativeness of enterprises and the identification of trends of changes in consumption are complex problems characterised by many aspects. Contemporary enterprises are forced to undergo diversification. They create an additional value of products and they inculcate consumers with benefits which go beyond the regular attributes and functional benefits of products. Enterprises operating in the food market become engaged in diversification through innovations. Consumers' demand and interest combined with consumption trends are significant factors stimulating action in this area.

Product innovations result from consumer trends (directional changes in consumer behaviours) and they are the predominant trend of innovations in the food industry. The food sector, food producers and food processing enterprises respond to consumer trends, but they less often create and anticipate these trends. The offer of innovative, functional, convenient, minimally processed and health-promoting products is increasing. Trends provide inspiration to develop and adjust products according to consumers' needs and expectations. The high dynamics of the food market combined with trends of changes in food consumption and innovations, especially product innovations, justify companies' interest in these innovations because they constantly generate new needs. It is necessary to observe and research consumer trends because they determine the development of innovations. We can be sure that we will never be short of new products because the need to stand out and meet consumers' expectations, requirements and demands will inspire their development.

References

- Achremowicz B. (2009), *Nowe produkty a współczesne zalecenia żywieniowe*, „Przemysł Spożywczy”, nr 1.
- Adamczyk G. (2010), *Popularność żywności wygodnej*, „Journal of Agribusiness and Rural Development”, 4(18).
- Allende A., McEvoy J.L., Luo Y., Artés F., Wang, C.Y. (2006), *Effectiveness of twosided UV-C treatments in inhibiting natural microflora and extending the shelflife of minimally processed “Red oak leaf” lettuce*, „Food Microbiology”, 23.
- Alves de Azeredo G., Montenegro Stamford T.L., Campos Nunes P., Gomez Neto N.J., Gomes de Oliveira M.E., Leite de Souza E. (2011), *Combined application of essential oils from *Origanum vulgare* L. e *Rosmarinus officinalis* L. to inhibit bacteria and autochthonous microflora associated with minimally processed vegetables*, „Food Research International”, 44.
- Arcese G., Flammini S., Lucchetti M.C., Martucci O. (2015), *Evidence and Experience of Open Sustainability Innovation Practices in the Food Sector*, „Sustainability”, 7(7), DOI:10.3390/su7078067 (www.mdpi.com/journal/sustainability).
- Borowska A., Rejman K. (2011), *Spożycie pieczywa i preferencje konsumentów wobec innowacyjności produktowej branży piekarskiej*, „Polskie Stowarzyszenie Zarządzania Wiedzą. Seria: Studia i Materiały”, nr 52.
- Chen Q., Anders S., An H. (2013), *Measuring consumer resistance to a new food technology: a choice experiment in meat packaging*, „Food Quality and Preference”, 28(2).
- Clausi A.S. (1999), *Rekcje konsumentów na nowe produkty*, „Przemysł Spożywczy”, nr 12.
- Costa A.I.A. (2003), *New Insights into Consumer-Oriented Food Product Design*, Thesis. Wageningen University, the Netherland.
- Drahos P., Maher, I. (2004), *Innovation, competition, standards and intellectual property: policy perspectives from economics and law*, „Information Economics and Policy”, Vol. 16, Issue 1.

Drucker P.E. (1992), *Innowacje, przedsiębiorczość. Praktyka i zasady*, Wydawnictwo PWE, Warszawa.

Eaton J., Kortum S. (1997), *Engines of growth: Domestic and foreign sources of innovation*, „Japan and the World Economy”, Vol. 9, Issue 2.

Florea L., Filip L., Banc R., Cozma A.M., Stanciu O., Gavrița L.I., Istrate D., Miere D. (2016), *Consumers' knowledge, interest and attitude toward functional food in a Romanian population sample*, „Palestrica of the third millennium – Civilization and Sport”, Vol. 17, no. 1.

Goszczyńska M., Górnik-Durose M. (2010), *Psychologiczne uwarunkowania zachowań ekonomicznych*, Wydawnictwo Difin, Warszawa.

Grunert, K.G. (2012), *Convenience mad*, in: Holm L., Kristensen, S.T. (eds.), *Mad, mennesker og måltider*. 2. udgave, Copenhagen: Munksgaard.

Gutkowska K. (2011), *Innowacyjność konsumentów wobec produktów żywnościowych jako warunek rozwoju rynku żywności*, „Konsumpcja i Rozwój”, nr 1.

Górska-Warsewicz H. (2007), *Żywność wygodna w sektorze mięsnym*, „Przemysł Spożywczy”, nr 7.

<http://www.worldbank.org/pl/news/press-release/2012/02/09/innovation-and-technology-can-help-sustain-fast-growth-in-emerging-europe> (data dostępu: 28.11.2016).

Janasz W. (2003), *Innowacyjność, struktury, modele i strategia rozwoju przedsiębiorstw*, Wydawnictwo US Szczecin.

Janicki A. (1993), *Żywność wygodna; definicje i etapy rozwoju*, „Przemysł Spożywczy”, nr 9.

Jeżewska-Zychowicz M. (2015), *Innowacyjne produkty zbożowe z perspektywy konsumenta*, Wydawnictwo SGGW, Warszawa.

Kahma N., Mäkelä J., Niva M., Ganskau E., Minina V. (2016), *Convenience food consumption in the Nordic countries and St. Petersburg area*, „International Journal of Consumer Studies”, 40.

Kall J., Sojkin B. (2008), *Zarządzanie produktem – teoria, praktyka, perspektywy*, Wydawnictwo Akademii Ekonomicznej, Poznań.

Kotler P., Keller K.L., (2012), *Marketing*, Wydanie XIV, Dom Wydawniczy REBIS, Poznań.

Kozań K., Guzek D., Lange E., Głąbska D., Włodarek D., Wierzbicka A. (2012), *Produkty mięsne należące do grupy żywności funkcjonalnej z uwzględnieniem potrzeb chorych na nieswoiste stany zapalne jelit*, „Zdrowie Publiczne i Zarządzanie”, 10 (2), DOI: 10.4467/20842627OZ.12.009.0896

Krygier K. (2011), *Żywność funkcjonalna – co to dziś oznacza?*, „Przemysł Spożywczy”, nr 4.

Matusiak K.B. (red.) (2011), *Innowacje i transfer technologii: Słownik pojęć*, dostępny na

http://www.pi.gov.pl/PARPFFiles/media/_multimedia/B3828FECCCB1427E90E2750F5EAB39D3/20120216_161517%20Innowacje_i_transfer_tehnologii__Sloownik_pojec.pdf (data dostępu 23.11.2016).

Menrad K. (2003), *Market and marketing of functional food in Europe*, „Journal of Food Engineering”, 56(2).

Menichelli E., Olsen N.V., Meyer Vh., Næs T. (2012), *Combining extrinsic and intrinsic information in consumer acceptance studies*, „Food Quality and Preference”, Vol. 23, Issue 2.

Mróz B. (2013), *Konsument w globalnej gospodarce. Trzy perspektywy*, Oficyna Wydawnicza SGH, Warszawa.

Nicoli M.C. (red.). (2012), *Shelf life assessment of food*. CRC Press.

Pee L.G. (2016), *Customer co-creation in B2C e-commerce: does it lead to better new products?*, „Electronic Commerce Research”, Vol. 16, Issue 2.

Podręcznik Oslo. 2006. Zasady gromadzenia i interpretacji danych dotyczących innowacji, Ministerstwo Nauki i Szkolnictwa Wyższego. Departament Strategii i Rozwoju Nauki, Warszawa.

PO IG – program Operacyjny Innowacyjna Gospodarka 2007-2013, https://www.poig.2007-2013.gov.pl/Dokumenty/Documents/POIG_X_2007.pdf (data dostępu: 10.11.2016).

Porter M.E. (1990), *The Competitive Advantage of Nations*, The Macmillan Press Ltd., London.

Raport (2015), *Innovation Union Scoreboard*, <https://badania.parp.gov.pl/polska-w-innovation-union-scoreboard-2015> (data dostępu: 22.11.2016).

Senauer B., Asp E., Kinsey J. (1991), *Food trends and the changing consumers*, Eagan Press, St. Paul, Minnesota, USA.

Scholderer, J., Grunert, K.G. (2005), *Consumers, food and convenience: the long way from resource constraints to actual consumption patterns*, „Journal of Economic Psychology”, 26.

Sillani S., Nassivera F. (2015), *Consumer behavior in choice of minimally processed vegetables and implications for marketing strategies*, „Trends in Food Science & Technology”, 46.

Soboń M. (2015), *Konsumpcja mobilnych usług prozdrowotnych przez młodych konsumentów*, „Marketing i Rynek. Konsumpcja i Innowacje”, nr 2 (CD), Wydawnictwo IBRKK, Warszawa.

Sobotkiewicz D., Waniowski P. (2006), *Marketing, zagadnienia podstawowe*, Wydawnictwo Placet, Warszawa.

Steptoe A., Pollard T.M., Wardle J. (1995), *Development of a measure of the motives underlying the selection of foods: the food choice questionnaire*, „Appetite”, 25.

Szymański G. (2013), *Innowacje marketingowe w sektorze e-commerce*, Wydawnictwo Politechniki Łódzkiej, Łódź.

Świdorski F. (2003), *Towaroznawstwo żywności przetworzonej*, Wydawnictwo SGGW Warszawa.

Tomaszewska M., Bilaska B., Grzesińska W., Przybylski W. (2014), *Żywność funkcjonalna jako możliwość rozwoju polskich firm spożywczych*, „Zeszyty Naukowe SERiA”, tom XVI, zeszyt 3.

Wolfarm T. (2016), *Processed Foods: What's OK and What to Avoid*. Published November 07, <http://www.eatright.org/resource/food/nutrition/nutrition-facts-and-food-labels/avoiding-processed-foods> (data dostępu 17.11.2016).

World Bank Group (2015), Raport, *W kierunku innowacyjnej Polski. Proces przedsiębiorczego odkrywania i analiza potrzeb przedsiębiorstw w Polsce*, Ministerstwo Rozwoju, Warszawa.

Vejlgaard H. (2008), *Anatomy of trend*, McGraw-Hill, New York.

Zalega T. (2013), *Nowe trendy i makrotrendy w zachowaniach konsumenckich gospodarstw domowych w XXI wieku*, „Konsumpcja i Rozwój”, nr 2(5).

Zalega T. (2015), *Innowacje a konsumpcja i zachowania konsumpcyjne – wybrane zagadnienia*, „Marketing i Rynek. Konsumpcja i Innowacje”, nr 2 (CD), Wydawnictwo IBRKK, Warszawa.