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FOOD PRODUCT INNOVATIONS AND THE MAIN CONSUMER TRENDS

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Abstract. Relatively slowly growing global food markets, soft demand, and ample supply make product innovations a key factor in attracting consumers attention. Consequently, in order to develop successful innovative products food producers are supposed to accurately track consumer trends. The aim of this paper is twofold. Firstly, recent developments in food product innovations and major consumer trends are contrasted in order to assess how successful food producers are in meeting new consumer demands. Secondly, gaps between the consumer trends and innovativeness of food companies are indicated. Results of the performed analyses based mainly on the data from a study by XTC World Innovation published in 2015 and literature sources suggest that considering main consumer trends food product innovations should be primary oriented towards pleasure and health.

Key words: food innovations, consumer trends, market niches

INTRODUCTION

Due to strong worldwide competition it becomes more and more difficult to offer differentiated food products, which would be better than existing alternatives. Therefore, not the marketers but the consumers and their aspirations should determine the types and nature of the food product innovations. Tirole [1988] distinguishes product innovations as being new kinds of goods and services introduced into a market, and process innovations as concentrated on reducing costs of goods and services already produced. Agro-food sectors need both the product and the process innovations, however from the

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consumer utility standpoint the former are much more persuasive and therefore they are often of greater market importance for companies. Consumers expect innovations, what is reflected in new trends appearing currently in the consumer markets. Specifically, 63% of consumers are looking forward to new products, 56% would like to switch to a new brand, and 49% tell the people around about recently purchased products [Nielsen 2014]. The key problem lies therefore in seeking for food product innovations, so that, the food industry may continue growing. As a solution to this stalemate Nielsen [2014] pointed out concentrating on consumers whose behaviour ultimately defines innovations instead of relying on marketers, who because of their past results and practices are not able to decide what a true innovation is, and what is not. Only consumers preferences and aspirations, as well as their purchasing behaviour may reveal and affirm an innovation. Consequently, in order to innovate through meeting unfilled demands, food producers should more accurately track consumer trends.

The aim of the paper is to contrast recent developments in food product innovations with features of major consumer trends in order to assess how successful food producers are in meeting new consumer demands, and to indicate gaps between the consumer trends and innovativeness of food companies, so that, market niches could be better identified and filled. The main hypothesis is that not all signs of current consumer trends are rightly detected and considered by food producers, as they are supposed to be when a spectrum of product innovations introduced into food markets is analysed in the context of consumer latent needs. In other words innovativeness food producers do not fully match expectations of the changing consumer expectations.

DATA AND METHODS

In quantitative approaches to study economic phenomena a trend is usually meant as a long-term tendency of a given variable to change its value in one direction. The changes may have increasing, decreasing or side character, where a side trend may be also called a stable one, as it lacks significant declines or growths and the considered variable values oscillate around a certain constant level. For the purpose of this paper the term trend is viewed somewhat qualitatively as described in the Cambridge Dictionary, namely as "a general development or change in a situation or in the way that people are behaving" (http://dictionary.cambridge.org/dictionary/english/trend). Basic features of trends include their variability, the overlap (comorbidities) and the simultaneous emergence of a counter-trend (divergence). Consumer trends may have a psychological, economic or social, short- or long-term, regional or global character [Vejlgaard 2008]. Simultaneously, they are objective and do not depend on the consumer will or consciousness. Specifically, according to Zalega [2013] consumer trends result from some megatrends observed in the social, economic, legal, political, demographic or technological contexts.

The analysis of consumer trends presented in the paper is based on the critical review of secondary sources, in which results of various studies regarding observed changes and tendencies in consumer behaviours were discussed and synthetized. In the Polish literature especially important contributions to this field have been recently made by Zalega [2013] and Mróz [2014]. Additionally, major megatrends as underlying factors for consumer trends are highlighted.

Consumer trends influence producer trends by creating new rules of functioning for food companies. This also refers to their innovative activities being undertaken to address changing needs and wants of the consumers. Developments taking place in this area were analysed using data from a study by XTC World Innovation [2015]. The study consists in segmentation of each food product category launched in 2014 in 40 countries. Each new product is precisely described regarding innovative features and then positioned on the XTC trends tree. Because of the paper space limit only the world perspective was taken into account, however, the issue of regional differences and their consequences was analysed too. After description of the main producer innovation trends and presentation of their examples regarding food, also a change in trends importance between the periods 2002–2006 and 2010–2014 is discussed in this paper.

The next step of the analysis was to identify gaps between potential consumer expectations reflected in the trends and the types of introduced innovations regarding food products. Then, based on deduction and expert assessment areas for promising future innovations comprising specific market niches were indicated. Finally, more detailed suggestions are formulated regarding some aspects of consumer preferences, which should be taken into account to avoid failure when developing breakthrough innovations.

RESULTS OF THE ANALYSIS

Consumer trends have their sources in significant social, economic, political and technological changes, which are coming slowly, but they make lasting 7–10 years, profound impacts on our lives. Most of them are connected with the change from the industrial to the post-industrial era characterised with an increasing role of knowledge and creativity as well as with an empowerment of employees [Naisbitt 1982]. These, so-called megatrends observed today are as follows [Zalega 2013]: gerontologization of society, rejuvenating society, luxurisation of consumption, lifestyle design, distanced (conscious) consumption, lazy (convenient) consumption, increasing mobility of people, centralization of consumption, information society or cybernetic consumerizm (resulting from social media, virtual consumption and multitasking), experience marketing, and avatarization of consumption.

Megatrends are connected most of all with changes regarding life expectancy, level and distribution of income, value systems of consumers, structure of employment, environmental concerns, as well as with rapid development of information technologies [Figiel 2015]. The most significant event influencing recently consumer trends was the 2007–2008 financial crisis. Since then, buying things hasn't been so strongly placed in the centre of human activity any more. Households had to limit their consumption whilst becoming more conscious that capitalism and mass production may rely also on overexploitation of workers, animals and natural environment. Consequently, purchasing decisions started to be made in a more responsible way, whereas before the crisis consumers were more individualistic and egocentric. They enjoyed buying and owning tailor-made products, through what they built their ego, and believed that an idyllic world of consumption should have ensured a good mood [Mróz 2014].

Eight main post-crisis consumer trends discussed in the literature are the following: anti-consumption, conscious (ethical, responsible) consumption, collaborative consumption (mesh, sharing economy), freeganizm, intelligent (innovative) consumption, smart shopping, cocooning (home centralization), and non-stop [Zalega 2013]. In this paper these trends have been considered with reference to the food consumption.

The consumer megatrends have impact on the marketing-mix of food companies. The most significant changes concern promotion, as general strategy described by spray and pray had to be replaced by attract and engage, which consists in offering experiences and sensations as well as building relationships, what includes responding to consumer feedback, and presumption [Mróz 2014]. In order to attract consumer attention firms take advantage of trexy marketing, which should make a brand more trendy and sexy[1]. Also, promotion campaigns have to be more innovative, creative and interactive. Specifically, young users of information technologies expect infotainment, edutainment, entertainment [Mróz 2014]. As a result, thought-out, long-term strategies are replaced by marketing happenings and provocations.

In Table 1 there are 15 trends listed, grouped into 5 axes, which represent potential producer responses to consumer expectations with exemplary descriptions regarding features of food products. The axes are meant as major domains of general consumers' expectations, which are supposed be to addressed by innovative food producers, directing their market efforts eventually reflected in the formation of visible trends concerning food product attributes and features. They can be briefly characterised as follows [XTC World Innovation 2015]: pleasure (induced by enticing quality, often emotionally charged), health (expressed by health benefits and risk prevention), physical (driven by attention to appearance, body shape or state of mind), convenience (based on efficiency of use and adaptation to new lifestyles), and ethics (focused on solidarity, concern for others and the environment).

It has been observed that innovations are more likely to occur in certain food categories than in others [XTC World Innovation 2015]. In 2014 the most innovative worldwide were the following categories: soft drinks, dairy products, appetizer grocery products, frozen products, ready-made meals, and biscuits. Innovations noticed in these categories accounted for 8.3, 7.2, 6.3, 5.7, 5.6 and 5.4% of the world total innovations, respectively. Categories with especially fast increasing number of innovations were alcoholic beverages/aperitifs and meat/delicatessen. During the last year the share of the first one increased from 2.9 to 4% and the second one from 2.6 to 3.9%.

After the crisis producers became more oriented to satisfying needs of the consumers related to pleasure, health and ethics, and relatively less active in introducing innovations embracing convenience and physical aspects (Fig.).

Consequently, more than half of all food products launched in 2014 addressed the needs for pleasure. Second important objective was to make products healthier, and third to make them more convenient. The least important for the food producers were consumers expectations linked to physical and ethical issues. According to XTC World Innovation [2015] food producers are mostly interested in making their products more varied in senses, more sophisticated, easier to handle, more natural and medical, whereas the least

[1] In order to do this virus marketing, world of mouth, guerrilla marketing, ambient media, trendsetting programs, building controversies around a brand, different platforms for exchanging experiences, also virtual ones, are employed [Mróz 2014].

Table 1. Food product innovation axes and trends in context of consumer expectations

Axis	Trend	Description of product features
Pleasure	sophistication (1)	high-quality, exclusive, rare, attaching details regarding recipes, ingredients, production processes, packaging, design (e.g. ingredients of prestigious origin like Amazon rainforest, adding sweet taste to traditionally savoury meals, food treated as art)
	variety of senses (2)	new taste, shape, colour, texture, seasonal and occasional products, breaking conventions, new experiences, e.g. Greek yoghurt instead of sour cream, meals for hot and cold consumptions, seaweed as an ingredient in sweet and savoury recipes, more delicacy and lightness of textures, introducing exotic products like wasabi into local recipes (fusion cuisine)
	exoticism (3)	new, different tastes and recipes from abroad, e.g. Burma cuisine, ready meals based on recipes from Japan, little known fruits like dragon fruit
	fun (4)	surprising, entertaining, interacting products, e.g. packaging created with a sense of humour, with pictures taken from social networks, tattoo design
Health	natural (5)	improving and not harming health, e.g. limiting a number of ingredients, stevia as a sweetener, animals reared without antibiotics and GMO, leafy vegetables prepared to eat, especially kale, use of vegetables in snacks
	medical (6)	ingredients benefiting health, additional or naturally present/absent, e.g. snacks and drinks improving eyesight, rich in vitamins and minerals superfoods like red berries, guarana, spinach, or seeds (chia, amaranth, quinoa), gluten-free products, food and beverages alkalizing body, baobab raw or for drinking
	vegetal (7)	positive influence on health because of basing production on plants, e.g. adding hemp good for heart, vegetable products consumed during symbolic moments of enjoyment and celebrations
Physical	slimness (8)	ingredients improving a weight loss or a lack of ingredients fostering a weight gain, e.g. meals with konjac, slower and less industrial production process, edamame (immature soybeans) in dips, products with ingredients of low calories and fat
	energy, well-being (9)	relaxing, stimulating body, e.g. single-serve size of beverages used in order to cool down or warm-up the body during sporting, lactose free, and enriched with proteins and calcium milk, adding microalgae (e.g. spirula, chlorella, euglena), beverages reducing stress (with lemon balm, kava-kava, GABA)
	cosmetic (10)	making more beautiful, e.g. beverages lightening skin for young Asian women, strong trend in Latin America, products with aloe, Coenzyme Q10 and collagen improving a condition of a face skin
Convenience	easy to handle (11)	easier carrying, eating, discarding, e.g. family-sized ready-made dishes, prior division in portions, kit included, separate sauce, special spoon for babies, herbs, vegetables, mushrooms for self-growing at home, packaging with windows, products ready to be served, e.g. in slices
	time saving (12)	short time of preparation or cooking, e.g. semi-ready or precooked products, packages with vanilla, spices, herbs for infusion cooking, so called meal solutions combining appetizer, main dish and dessert in a single box to take away
	nomadism (13)	easiness of eating regardless conditions, e.g. on-the-go and economy sizes, seaweed in snacks and as salads after adding water
Ethics	solidarity (14)	supporting disadvantaged people, not harming human rights, e.g. resigning from a part of the profit for the sake of regional economic development, children with autism, or people suffering from cancersas, e.g. symbolized by pink ribbon (breast cancer) or moustache (prostate cancer)
	ecology (15)	respecting animals and nature, e.g. bottles and coffee capsules made of plants, edible packaging, packages embedded with seeds possible to plant in the ground, assuring animal welfare, and protection and sustainability of marine resources

Source: Own elaboration based on XTC World Innovation [2015].

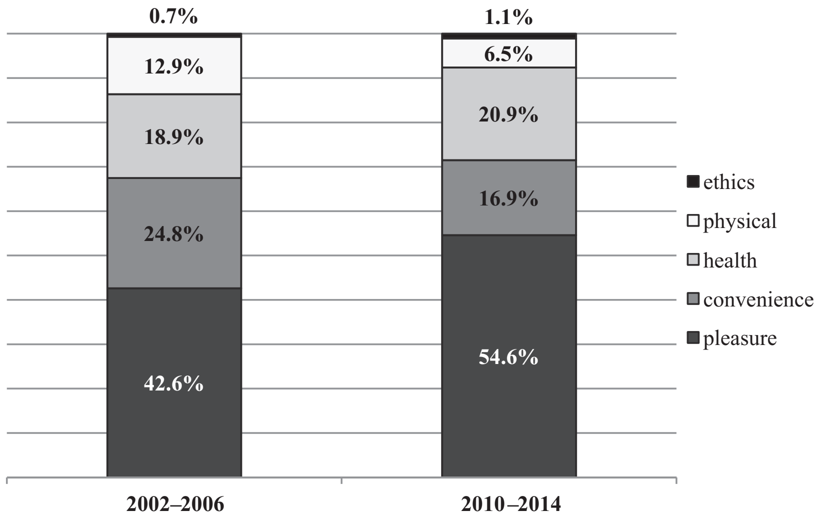

Fig. Changes in structure of food product innovations in relation to trends

Source: Own elaboration based on XTC World Innovation [2015] data.

important features are those related to cosmetic, solidarity, ecological and vegetal trends. Of course, it should be remembered that what kind of trend dominates and whether all of them appear differ across geographic locations and product categories.

When analysing the consumer and food product innovation trends, they seem very similar and intertwined. As matter of fact, these trends mutually permeate as well as one kind of trend may result from another one. Yet, the consumer trends can be viewed as indications of the market demand, whereas, product innovation trends as manifestation of the market supply. Following this reasoning these trends were confronted, as reflections of the two sides of the food market in terms of compliance, understood as a degree to which the food innovation trends follow the main consumer trends. The results of a qualitative analysis presented in Table 2 show how strongly a particular food innovation trend (FPIT), representing producers' innovative market responses, satisfies consumers expectations and needs embodied in the identified consumers trends.

The sign minus means that a response is fairly weak or none, and the sign plus means that a response is clearly observable or strong. It appears, that out of 15 food innovation trends, new product development only in 4 of them can be considered as satisfying the consumer needs in more than half of the trend areas. Consequently, this implies that food producers are not currently very successful in meeting new consumer demands. The following innovative producers efforts seem to be not sufficiently meeting the consumers' expectations:

- ingredients improving a weight loss, or a lack of ingredients fostering a weight gain (8);
- making more beautiful (10);
- new taste, shape, colour, texture, seasonal and occasional products, breaking conventions, new experiences (2);

Table 2. Assessment of the compliance of the food product innovation trends with the consumer trends

Axis	FPIT	Consumer trends								Sum of luses
		A	B	C	D	E	F	G	H	
Pleasure	(1)	–	+	–	–	+	+	+	–	4
	(2)	–	–	–	–	–	+	+	–	2
	(3)	–	–	–	–	–	+	+	–	2
	(4)	–	–	+	–	–	–	+	+	3
Health	(5)	+	+	–	+	+	+	+	–	6
	(6)	–	–	–	–	–	+	–	+	2
	(7)	–	+	+	+	+	+	+	–	6
Physical	(8)	–	–	–	+	–	–	–	–	1
	(9)	+	–	–	–	+	+	–	+	4
	(10)	–	–	–	+	–	–	–	–	1
Conven-ience	(11)	–	–	+	+	+	–	+	+	4
	(12)	+	–	–	+	+	–	+	+	5
	(13)	–	–	+	+	–	–	–	+	3
Eth-ics	(14)	+	+	+	–	–	–	–	–	3
	(15)	+	+	+	+	+	–	–	+	6
Sum of pluses		5	5	6	7	7	7	8	7	52

FPIT– Food product innovation trends numbered as in Table 1; A – Anti-consumption; B – Conscious consumption; C – Collaborative consumption; D – Freeganism; E – Intelligent consumption; F – Smart shopping; G – Cocooning; H – Non-stop; (–) weak producers' response; (+) strong producers' response.

Source: Own elaboration.

- new, different tastes and recipes from abroad (3);
- ingredients benefiting health, additional or naturally present or absent (6).

Improvements in the market offerings related to the above mentioned areas would probably be especially welcome by consumers. In contrast, food product innovations addressing the needs related to the biggest number of consumer trend areas include:

- improving and not harming health (5);
- positive influence on health because of basing production on plants (7);
- respecting animals and nature (15);
- short time of preparation or cooking (12).

Approximately only half of the product innovation trends respond in a visible way to the needs of enumerated consumer trend areas, what probably means that within the rest there is not enough market offerings developed for certain consumer groups. This should be encouraging for food producers to look for prospective market niches and explore them, even if it's not easy to decide what kind of food innovations a certain consumer group really wants.

Results of the performed gap analysis indicates that the degree of satisfying needs of various consumer groups by different food product innovations seems to be insufficient. Significant niches may still exist in the food market and efforts to successfully fill them should be directed to provide: more pleasure for anti-consumers, more physical attributes and convenience for conscious consumers, more physical attributes and healthy products for collaborating consumers, more pleasure for freegans, more convenient and ethical products for smart shoppers, more physical attributes and ethical products for home lovers. Interestingly, intelligent and non-stop type of consumers are the only groups, whose expectations are at least partly addressed in each of the five food product innovation axes. This may mean that innovative food producers respond to the needs of such consumers to the greatest extend.

Based on results of the analysis, also some more specific recommendations regarding desired features of innovative food products can be formulated with reference to each consumer trends. They are as follows:

- anti-consumption – products supporting disadvantaged people, not harming human rights;
- conscious consumption – relaxing, stimulating body, plus easiness of eating regardless conditions; and ethics;
- collaborative consumption – surprising, entertaining, interacting products, plus easier carrying, eating, discarding for groups;
- freeganism – physical, plus respecting animals and nature;
- intelligent consumption – surprising, entertaining, interacting products (social media), relaxing, stimulating body;
- smart shopping – new taste, shape, colour, texture, seasonal and occasional products, breaking conventions, new experiences, plus new, different tastes and recipes from abroad;
- cocooning – improving and not harming health, plus short time of preparation or cooking;
- non-stop – health plus convenience.

The above recommendations represent an attempt to generalize results of the performed study and related analysis considering consumer and food product innovation trends from the perspective of the globalized world. The discussed trends are born and driven mostly by behaviour of consumers and producers representing the Western world. We can also see that the more developed a country is, the stronger are both the orientation towards fun, quality, health, individualization, and the need for diet, functional, organic, fresh, convenient food. Of course, it should be kept in mind that demand for particular innovative food products can significantly differ across product categories, world regions and countries[2].

CONCLUSION

A simultaneous analysis of food product innovations and the main consumer trends can provide not only an interesting insight into the degree to which supply in food markets meets the demand, but also allows to identify strategic directions food producers looking for business opportunities should follow. Assuming that consumers' trends at least to a certain extent are primary and should direct producers responses regarding

[2] Description and analysis of such differences in details is beyond the scope of this paper and could be a subject of a separate study.

product innovations, the world food industry seems to be fulfilling consumer wants and wishes unequally. An attempt to match characteristics of consumer trends with features of innovative food products, reflecting the food product innovation trends (FPIT) according to XTC World Innovation [2015], showed that only in case of 52 out of 120 analysed combinations, so less than 50%, represented clearly observable expected producers' responses. Results of the analysis indicate a constantly increasing role of food innovations connected with health and pleasure. Regarding pleasure, through their purchasing decisions consumers want to show respect for other cultures, they are looking for products of better value, and for those which will show them the beauty of life, while social media play an increasingly important role, enabling consumers to create products from the beginning (called collaborative customisation).

The ethics and physical trends lose in sense their importance, as instead of buying ethical products people prefer rather to do something else for nature, animals and people, and the physical trend converges to the health trend. A special attention should be paid to such aspects as improving and not harming health, because in future they will probably shape a major trend connected with simplicity regarding ingredients, packaging, recipes, and may be strengthened by a growing tendency to look for food purchased directly from producer (short food supply chains), which involves a face-to-face or through social media interactions. The question is however, if such phenomenon being partly a comeback to tradition, should be considered as offering innovative products. This also refers to a revival of traditional food products offered usually by small producers, what is for example observable and publicly supported in the EU countries (http://www.tradeitnetwork.eu/TRADEIT-Support-for-the-Traditional-Food-Sector#&panel1-3). Considering the convenience trend, it no longer seems to be viewed as strongly related to innovations, apart from certain groups of consumers, for instance, those interested in collaborative consumption.

Development of both consumer trends and food product innovation trends is strongly influenced by global events such as the recent 2007–2008 financial crisis. Current consumer trends clearly embody much more focus on saving, rational buying and minimizing consumption. Consumers don't trust marketing messages, they are less loyal to brands, more critical and expect personal attention. This new global business environment drives food product innovations trends, however the results of the gap analysis show that there are still spaces for products innovations, especially regarding pleasure and health in connection with the simplicity. So, this means that attractive market niches still exist and should be explored by food producers in terms of business opportunities. But, strategic choices of food producers may be successful only if consumer perspective is properly understood, what means not only showing empathy and judging the products offered in the consumers' eyes and getting them involved in building collaborative relationships, but also creating open companies acting like innovation hubs.

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Streszczenie. Rynek dóbr żywnościowych charakteryzuje się znikomym wzrostem, stabilnym popytem i szeroką ofertą, co sprawia, że innowacje produktowe są głównym czynnikiem przyciągającym uwagę konsumentów. W konsekwencji, aby udanie rozwijać innowacje produktowe, producenci żywności powinni właściwie śledzić trendy konsumenckie. Cel artykułu ma dwojaki charakter. Po pierwsze, pojawiające się ostatnio rodzaje żywnościowych innowacji produktowych skonfrontowano z głównymi trendami konsumenckimi, aby ocenić jak udanie producenci żywności zaspokajają potrzeby konsumentów. Po drugie, wskazane zostały luki między trendami konsumenckimi a innowacyjnością firm wytwarzających żywność. Rezultaty przeprowadzonych analiz opracowane na podstawie danych zaczerpniętych z publikacji XTC World Innovation z 2015 roku oraz źródeł literaturowych wskazują, że biorąc pod uwagę główne trendy konsumenckie, żywnościowe innowacje produktowe powinny być zorientowane przede wszystkim na przyjemność i zdrowie.

Słowa kluczowe: innowacje żywnościowe, trendy konsumenckie, nisze rynkowe

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