

# **ECONOMIC CONDITIONS OF THE FUNCTIONING OF THE FOOD INDUSTRY COMPANIES IN POLAND**

**Krzysztof Firlej**  
**Cracow University of Economics**  
**krzysztof.firlej@uek.krakow.pl**

**Keywords:** economic conditions, competitive advantage, the food industry, innovation

## **Abstract**

The present article examines the extent to which the processes taking place in the economy, and closer to the business environment of the food industry in Poland affect their performance and competitiveness. The study was conducted on a representative sample of 267 enterprises of the food industry in the years 2012 and 2013. The research noted that: enterprises of the food industry operate in a highly competitive market, the Polish membership in the European Union has influenced a major change in the methods, ways and standards of production and the market pressure applied to the implementation of innovations that changed the image of Polish food industry. It was also found that in the area of determining the degree of impact on processes in the areas close to the surveyed enterprises, their function to the greatest extent was affected by: the level of competition between companies, the bargaining power of buyers and bargaining power of suppliers.

## **Introduction**

Previous research in the area of competitiveness of food industry companies indicate that the main source of competitive advantages are mainly cost and price advantage, which over time will decrease [9], and it can be found certainly in the general environment in which businesses operate, usually called its surroundings. Setting the company in a market economy in the literature is referred to a set of external phenomena, processes, institutions and forces that directly or indirectly affect the growth potential of the company, its strengths and weaknesses and contacts with contractors. Basically surrounding of the company is divided into closer and further. The closer setting is usually called by the company the competitive environment or microenvironment. It is the most common entities classified to it directly interact with the company; by which each create their existence. It's the most important relationship with the environment, is the interaction between the company and the elements of the environment, which usually can be regarded as competitive. The proper response to signals from the environment is a prerequisite for the implementation of properly planned strategy. Extremely important missions to fulfil are employees of senior management in companies who are investigating and trying to determine the make optional continuation of interactions and apply them in practice. The ability of the company to influence the competitive environment varies and is determined mainly by its competitive position, and the relationship between elements of the microenvironment which constitute the structure of the industry in which company operates [5]. Components of the enterprise environment are competitors who are present locally, regionally and throughout the country; producers of substitute and complementary goods; customers and recipients; suppliers and partners; all kinds of financial institutions, banking, insurance, etc.; trade unions and other social organizations; companies performing services for the enterprise [3]. To make the determination of the detailed position of the company on the market, the most common is

the use of analysis of the competitive environment, which recommends G. Gierszewska and M. Romanowska. According to the authors, this type of analysis helps to pave and indicate the best conditions for the functioning and development of the company in a given sector and a given geographic market. It also provides many of the necessary information to determine the appropriate processing opportunities and risks arising from the dynamics of the sector development, but also the activities of suppliers and customers, as well as indicate the unpredictable reactions of competitors. Using the results of the analysis of enterprise managers in the planning stage can adapt and build their resources so that they can be used for the purposes of the implemented strategy. Most often recommended, as well as practical methods of micro-analysis are: the concept of Porter's 5 forces; economic profile of the sector; point evaluation of the attractiveness of the sector; map of strategic groups; experience curve [2].

The further environment of the company determines the set of factors from outside of the company, which determine its function without its participation, and an example of this might be a change of government, regulations or cycles. Further setting otherwise might be called the general environment, because it directly shapes determining the objectives and principles of the company, and its detailed observation and analysis allow the formulation of objectives and long-term plans, which are a reflection of the development strategy [6]. When analysing the further environment we have to face a much more difficult study, than we performed in the case of micro-analysis. In this case, we do not have a pre-established research method, as the weight of research in different areas is different and the value of a given factor may have a different meaning for those in the study, depending on e.g.: sector in which the company operates [4], size of the enterprise, the importance of the company for the economy, the state's economic priorities, etc. Constructing a definition of the further environment, R. Griffin listed the following dimensions as the main elements:

1. The economic dimension - as being about the condition of the economic system, under which the company operates. The most significant of its features include: interest rates, unemployment, inflation and demand.
2. The socio-cultural dimension - it consists of items such as: customs, values, habits, and demographic characteristics of the population. It is widely recognized that reflect the fashion trends and governing in a given space, which determines the volume of sales.
3. The technical dimension - shows the access to modern technology , enabling them to transform resources into goods or services. To a large extent is dependent on the level of development of the country and the policy for the funding of research and innovation.
4. The political and legal dimension - is responsible for state regulation of economic activity and the prevailing relations between the state and the economy [3].
5. The international dimension – these are all kinds of interactions with political and legal dimension, where the chosen factor affects the functioning of state enterprises globally [8].

### **Aim, field of study and research methodology**

The purpose of this article was to present the extent to which the processes occurring in the economy and in areas close to food industry companies in Poland affect their performance and competitiveness. Polish food industry in 2014 is still one of the major producers of food in the European Union, and the one that forms part of the wider frame of agribusiness and is one of the most important parts of the economy with a view to ensuring food security for the population, because the food in each country must be treated as a strategic commodity [1].

Planned and laid out a research sampling generally comprised of food industry companies in Poland. A complete list of units of study population included companies registered REGON on the day 30.10.2012 r., which, according to Polish Classification of Economic Activities (NACE 2007) have been included in Section C. Manufacturing, Unit 10. Production food, Unit 11. Manufacture of beverages and Division 12 Manufacture of tobacco products. In

order to obtain a representative sample of population units a probabilistic (random) sample selection technique was used, and survey questionnaires were used as a research tool. Using the formula for the minimum sample size it was determined that for the test there must be 267 companies surveyed (with a population of 33 662 entities) [1].

### 3. Research results

Bearing in mind that all companies operate in more or less for themselves familiar surroundings, each of those managers, must take into consideration the conditions in respect of the impact on their operations and efficiency. In the case of the food industry is all the more important because this production is characterized by such features as the seasonality of production, shelf-life, custom storage conditions of raw materials and products, high standards and quality standards, and many other requirements that do not apply or are required at lower levels than in other branches of production. In this study, we presented to respondents, representing different levels of management in the enterprises of the food industry, the processes taking place in the economy, for which they had to respond. Each of them had pointed processes that most or least impact on the activities of the company according to a predetermined scale. The average assessment of the impact of economic processes on the operation of enterprises of the food industry is shown in Fig. 1. Number of respondents choosing response data is presented in Table 1 and the percentage for each of them in Table 2.

Table 1. Effect of economic processes on the operation of enterprises of the food industry - the number of respondents choosing answer

Processes:	answer								Total	mean	median	1 quartile	3 quartile
	0	1	2	3	4	5	6	other					
Globalization	29	30	38	79	55	21	15	0	267	2,8	3,0	2,0	4,0
Membership in the EU	26	19	30	45	71	50	25	1	267	3,4	4,0	2,0	5,0
The growing competition	2	3	5	14	67	72	104	0	267	4,9	5,0	4,0	6,0
Emphasis on innovation	8	14	36	48	63	64	34	0	267	3,8	4,0	3,0	5,0
The development of information and communication technologies	18	30	42	70	57	40	10	0	267	3,0	3,0	2,0	4,0
Other	7	1	0	0	0	0	3	0	11	1,7	0,0	0,0	3,5

Source: own study.

The research found that the most important factor indicated by respondents as affecting the operation of the company is intensifying market competition, as indicated by 91.1% of the respondents. This was confirmed by A. Kowalski, who points out that we have the most modern food industry in Europe, but the problem is the scale and it destroys Polish-Polish competition<sup>1</sup>. I. Szczepaniak also devotes a lot of attention to the issue of the competitiveness of food producers, highlighting therein that competition is one of the most important mechanisms of modern social and economic life, and until recently it concerned mainly regional or national markets, while international competition was limited by geographical factors and institutional barriers created by individual countries or groups [7]. Another factor chosen by respondents was the emphasis on the implementation of innovations, which indicated in 60.3% of cases. Respondents said that the implementation of innovation is an expensive process for them, and above all, require a high level of knowledge, as well as perseverance and patience on the part

<sup>1</sup> Dyrektor IERiGŻ: *Przemysł spożywczy niszczy polsko-polską konkurencję*, <http://www.portalspozywczy.pl/>; dostęp 28.10.2014.

of the entrepreneurs themselves. In interviews also highlighted the very modest state aid for entrepreneurs wishing to implement processes and innovative products, which does not encourage them to this kind of behaviour. The respondents, although only 55.1% indicated the Polish membership in the European Union, however, every time emphasized the importance of this step in changing the approach to the business and operation of their business. The need to adapt to new legal and organizational rules, taking into account the EU directives and the need to meet the required standards, often forced businesses to change the production profile or locate their production in another sector. Like a lot of controversy raised the question of the impact of globalization processes (36.3%) and the development of IT technology (33.6%). Although they were not selected as the most important and highest degree of conditioning the operation of enterprises, entrepreneurs noticed their impact, mostly in a positive sense. The responses could be seen even admiration for the other competing businesses, able to respond flexibly to the ongoing global change, but also those who have surplus funds and spend them on permanent technological development of their companies. They saw the future of the farm advisory systems implementation, even in the field of: supervision, auditing of quality management systems such as HACCP, BRC and IFS.

Table 2. Impact of economic processes on the operation of enterprises of the food industry - the percentage of respondents choosing answers

Processes:	answer									The most frequent		
	0	1	2	3	4	5	6	other	answer	No. of answers	%	
Globalization	10,9	11,2	14,2	29,6	20,6	7,9	5,6	0,0	No opinion	79	29,6	
Membership in the EU	9,7	7,1	11,2	16,9	26,6	18,7	9,4	0,4	Rather yes	71	26,6	
The growing competition	0,7	1,1	1,9	5,2	25,1	27,0	39,0	0,0	Definitely yes	104	39,0	
Emphasis on innovation	3,0	5,2	13,5	18,0	23,6	24,0	12,7	0,0	yes	64	24,0	
The development of information and communication technologies	6,7	11,2	15,7	26,2	21,3	15,0	3,7	0,0	No opinion	70	26,2	
other	63,6	9,1	0,0	0,0	0,0	0,0	27,3	0,0	0	7	63,6	

Source: own study.

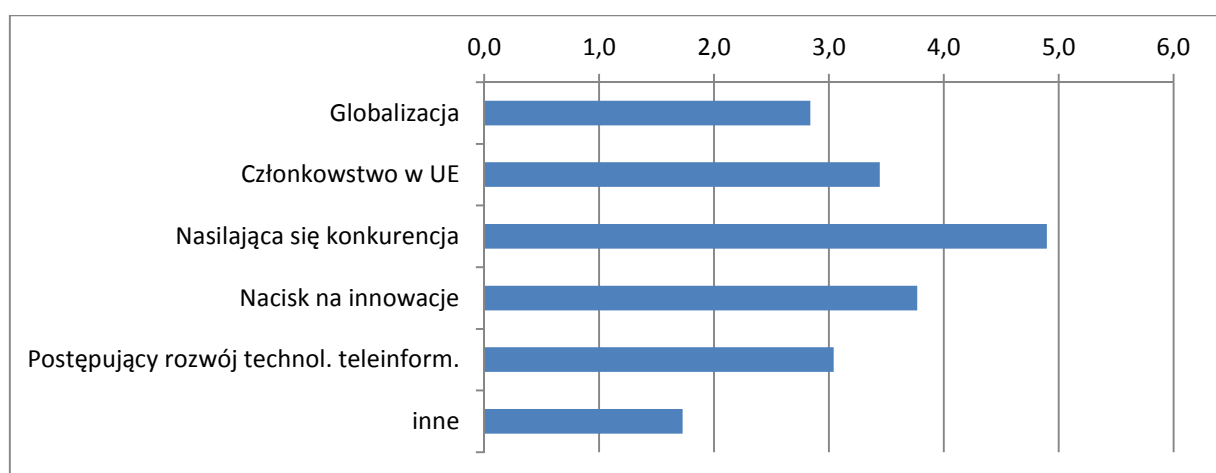


Fig. 1. Estimated impact of economic processes on the functioning of the food industry enterprises.

Source: own study.

Another very important step in the audit was to determine the extent to which the processes occurring in areas close to the surveyed companies interact with their functioning. The number of respondents choosing answers is presented in Table 1, and the percentage of each of them in Table 2. The largest group of respondents pointed to the rivalry between the companies (there were up 85.8%) as the second most important process listed bargaining power of buyers (76.8%), and third place went to the bargaining power of suppliers (73.8%). Indication of respondents of intensified competitive rivalry in the case of the food industry turns out not to be coincidental. Degree of impact processes in the areas close to the surveyed companies on their functioning is shown in Fig. 2.

Table 3. The degree of impact processes in the areas close to the surveyed companies on their functioning. The number of respondents choosing answers.

Processes	answers								Answers in total	mean	median	1 quartile	3 quartile	modal
	0	1	2	3	4	5	6	other						
Competition	7	3	12	16	60	65	104	0	267	4,7	5	4	6	6
New producers	9	12	27	34	53	76	56	0	267	4,1	4	3	5	5
Provider strength	7	3	21	39	97	68	31	1	267	4,1	4	3	5	4
Buyer strength	4	3	14	41	96	66	43	0	267	4,2	4	4	5	4
Substitute	27	24	53	67	43	38	15	0	267	2,9	3	2	4	3

Source: own study.

The large number of competitors in the food markets, as well as its division into a large number of smaller competitors promotes the development of a much more intense competition than in the case of industries dominated by a few companies holding significant market share. The second of these processes, that is, the bargaining power of buyers since the accession of Poland to the EU structures is still growing, which guarantees to provide the sales of manufactured products.

Table 4. The degree of impact processes in the areas close to the surveyed companies on their functioning. Percentage of respondents choosing answers.

Processes	answer								Most frequent		
	0	1	2	3	4	5	6	other	answer	No. of answers	%
Competition	2,6	1,1	4,5	6,0	22,5	24,3	39,0	0,0	Definitely yes	104	39,0%
New producers	3,4	4,5	10,1	12,7	19,9	28,5	21,0	0,0	yes	76	28,5%
Provider strength	2,6	1,1	7,9	14,6	36,3	25,5	11,6	0,4	Rather yes	97	36,3%
Buyer strength	1,5	1,1	5,2	15,4	36,0	24,7	16,1	0,0	Rather yes	96	36,0%
Substitute	10,1	9,0	19,9	25,1	16,1	14,2	5,6	0,0	No opinion	67	25,1%

Source: own study.

Respondents often stressed the importance of correct relations and wealth of clients, who are in fact the main source of their income, which confirms that they are one of the most

important elements of the enterprise environment. Still difficult to determine however is a market research, determining the ratio of manufacturers of the same food product, relative to the number of potential buyers. None of the surveyed companies did not dare to assess the current situation regarding the lead bargaining power in the line supplier - buyer. The respondents are of the opinion that the food market consists of the large number of suppliers, so their bargaining power is low. In such a situation, some of the entrepreneurs are looking for their chance in the application of specific components, semi-finished products put on the market for food and attempt to input all kinds of product innovations. Of serious significance may also be formed associations between the trader and supplier, which certainly lead to mutual integration.

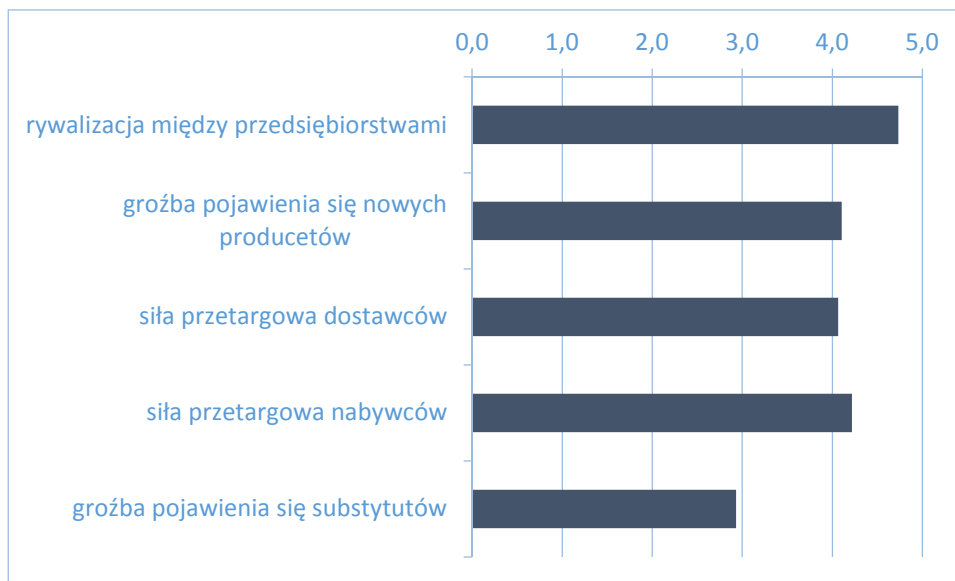


Fig. 2. The degree of impact processes in the areas close to the surveyed enterprises of the food industry for their functioning

Source: own study.

At the opposite extreme was the emergence of the threat of substitutes (39%), as well as the threat of the emergence of new producers (18.5%), which, moreover, was emphasized in the statements of the respondents. The threat of the emergence of substitutes for food products may be frequent or very rare. It is hard to replace, for example, milk as a raw material to other similar drink, because it can only be varied due to certain parameters that we consider. On the other hand, if we take into account the products processed by the food industry, for example: range of soft drinks is in the range you will find a variety of products fulfilling similar functions, as an eloquent example is Coca-Cola, Pepsi-Cola, Hop-Cola and a number of other. It follows that the processed products usually have, or in the near future would bring them their substitutes. Adulteration of food product usually does not cause major problems, unless the recipe is heavily protected by law or classified. In the case of food products is taken into account by manufacturers of consumer willingness to purchase substitutes, their price and the degree of substitutability, as well as switching costs.

The second of these elements, namely the risk of entry of new (manufacturers) competitors has been less evaluated as threatening. Nevertheless, it was indicated that often the emergence of new players decide about market barriers, although the situation on the food market does not happen too often. As the most important of these entrepreneurs enumerated: the high cost of inputs, know-how, patents, access to the market, monopolization of the sector and the obstacles of a legal and legislative nature.

## Summary

Our study attempted to assess the degree of impact of economic processes, which in closer business environment affect their performance and competitiveness. In the conceptualization phase of the research the general classification of these processes has been estimated, and their selection to the final form to get responses as to the degree of their impact, and their views on the most important processes. In a study, to determine the effect of economic processes on the operation of enterprises of the food industry and the impact of one sequence of processes occurring in areas close to it, we used the presentation of the number and percentage of respondents choosing answers.

In assessing the impact of economic processes on the operation of enterprises of the food industry based on the research, the following conclusions may be drawn:

1. Food industry companies operate in a highly competitive market, where competition is concerning all functioning organizational units present in all areas of production and trade, proposed is the best product, which is associated with its improvement. It was pointed out that in the food industry especially important is the total process of preparation of the product, which every moment is associated with the improvement, ranging from methods of production, sales, through all kinds of marketing activities, e.g. advertising, distribution, pricing.
2. Polish membership in the European Union has had an influence on a major change in the methods, ways and production standards in the Polish food industry. In particular, there was an increase in domestic demand for food and beverages, accelerated development of domestic food production, the development of foreign trade in food, or changes in production levels, its structure and pricing of agro-food products.
3. On the market there was pressure on the implementation of innovations that changed the image of Polish food industry. Due to the necessity of adapting national processing companies to EU standards, the level and dynamics of investments in enterprises of the food industry increased. There have been foreign investments, new sources of funding and hitherto unknown forms of cooperation which has supported public assistance, including funding from the European Union budget, which reinforce the processes of evolution of the food sector.

In the area of determining the degree of impact processes in the areas close to the surveyed enterprises of the food industry for their operation, the following conclusions were formed:

1. The most important process occurring in the competitive food market is the level of competition occurring between companies, which in the food most commonly affected by factors such as the nearly 40-hundred-million domestic and over 505 millionth European consumer market, a high level of product differentiation, the high possibility of increase in production capacity, strong barriers to entry. As significant factors were considered: the growth rate of the sector, fixed costs, storage and changes in provider rates and a high level strategic stake in the sector.
2. An important process turned out to be the bargaining power of buyers, because especially in the food market, there are many organized groups, and the special place occupied large retail chains, contracting production after receipt of predetermined prices, which significantly affects the functioning of the market. Major market players often dictate the price level significantly sacrificing margin on sales, which leads to the elimination from the market of small businesses. Tying agricultural producer groups turned out to be a positive example, opposition

to agricultural producers in the agribusiness sector pressure groups affiliated purchasers, acting under the banner of one company.

3. Last, as an important process indicated by the respondents are the bargaining power of suppliers, which in the food industry turns out to be small. A large number of suppliers lead to the occurrence of high competition between them. Often there are a direct sales and omissions of intermediaries, resulting in sales of food products directly to the consumer. At the food market with low switching costs, so the search for another does not cause trouble. Moreover, it occurs at many particulate suppliers and their products are mostly uniform, and there are many substitutes.

## Literature:

- [1] Firlej K., *Analysis of the factors increasing the competitiveness of the food industry enterprises results, Economic Development and Management of Regions*, Hradecké ekonomické dny 2014, Hradec Králové 2013, s. 141-148, ISBN 978-80-7435-369-7.
- [2] Gierszewska G., Romanowska M., *Analiza strategiczna przedsiębiorstwa*, Polskie Wydawnictwo Ekonomiczne, 2003, s. 32,81-82, ISBN 83-208-1389-1.
- [3] Griffin R.W., *Podstawy zarządzania organizacjami*, Wydawnictwo Naukowe PWN, s.100-108, ISBN 83-01-12019-3, ISBN 83-01-12019-3.
- [4] Obłój K., *Strategia organizacji*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2014, s. 108-109, ISBN 978-83-208-2165-9.
- [5] Pierścionek Z., *Strategie konkurencji i rozwoju przedsiębiorstwa*, Wydawnictwo Naukowe PWN, 2007, s. 88-95, ISBN 978-83-01-14085-4.
- [6] *Podstawy marketingu*, pod red. J. Altkorna, Instytut Marketingu, Kraków 2004, s. 51-52, ISBN 83-900698-9-X.
- [7] Szczepaniak I. *Konkurencyjność polskich producentów żywności pochodzenia zwierzęcego*, Przemysł Spożywczy, 2009, Nr 3, ISSN 0033-250X.
- [8] Wajda A., *Organizacja i zarządzanie*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2003, s. 13-15, ISBN 83-208-1453-7.
- [9] Zieliński K., Żmija D., *Analiza konkurencyjności polskiego sektora rolno-spożywczego*, [w:] *Konkurencyjność i innowacyjność polskiej gospodarki w Unii Europejskiej*, red. A. Prusek, Uniwersytet Ekonomiczny w Krakowie, Kraków 2011, s. 61-73, ISBN 978-83-934124-0-2.