

# THE DETERMINANTS OF FOOD INDUSTRY DEVELOPMENT IN MALOPOLSKA REGION

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***Abstract:***

The article presents problems concerning the determinants of food industry functioning in the region of Malopolska. Food industry has got a large share in the general production of the region and it is facing many problems and threats emerging from regional integration process and world economy globalization. The leading companies of Malopolska region have got to determine the external factors from the economic and sector environment and the internal factors influencing the company functioning. This paper presents the results of own study conducted in 289 companies from Malopolska region, divided into chosen branches of food industry. The factography of these companies has been presented in order to evaluate the companies according to their economy and organization.

**Introduction**

In order to present the developmental opportunities of food industry, the empirical studies had to be performed to characterize the influence of external and internal determinants on companies from the food sector. The empirical study was performed in 2007, that is 3 years after European Union accession, in 289 companies from Malopolska region, divided into food industry branches. In order to perform the study, a questionnaire was developed and the studies were based on the direct interview with the people from the most important posts in analysed companies. The study conducted included the companies functioning in five of the most important branches of food industry: fruit-vegetable, meat, milk, cereal-grain and confectioner's. The main criterion of the study conducted in the chosen branches was the level of connection with the agribusiness sector, because a thesis can be accepted that the level of food industry functioning largely depends on the level of agribusiness development in the region. In the present study a detailed quantification and choice of variables has been done, together with the presentation of methods facilitating the construction of variables (factors) hierarchy, that determine the level of food industry development. Based on the empirical material, the analysis of other important companies functioning aspects, influencing their state and developmental opportunities has been conducted. The interviews performed allowed the analysis and evaluation of the most important problems concerning companies functioning, and as a result a hierarchy of determinants emerged, including external and internal developmental factors. The food industry development determinants analysed were external, internal, systemic and organizational factors influencing companies functioning.

## **Factography of the study performed**

The area of study was Malopolska region, created with the former regions of: bielskie, kieleckie, katowickie, krośnieńskie and tarnowskie. The region is divided into 22 poviats, 182 municipalities, 1904 towns, 56 cities and 2630 villages. The area of the Malopolska region is 15 108 km<sup>2</sup> and it is the 12<sup>th</sup> place in Poland. Malopolska has got 3270 000 citizens and this is the 4<sup>th</sup> region according to the number of inhabitants in Poland. The density of people is one of the greatest in Poland, it's 216,2 people/km<sup>2</sup>, while the medium density for Poland is 122 people/km<sup>2</sup><sup>1</sup>. Malopolska region creates 7,4% of GNP and it's industry gathers 8,1% of employment force and brings 6,6% of the general value of sold industrial production. The main branches of economy in Malopolska are information sector (computer systems development and microcomputers creation share is over 87% of Polish production) and banking, but also food industry including tobacco production (the region produces 46% of Polish cigarettes). The average employment rate in the company sector in 2008 was 403,3 thousand people – and that was 5% more than a year before<sup>2</sup>. In Malopolska region in 2008 the number of companies has increased by 2,6% in the comparison with the previous year. In the private sector the increase level was 3%. In the public sector within one year (from 2007 to 2008) 688 economic organizations disappeared and that was 7,8% of all economic organizations. In the KRUPGN-REGON registry there were 301,6 thousand of economic organizations registered. Concerning the basic activity, at the end of 2008 the most of these organizations were functioning in the trade and repairs - 86,5 thousand (28,7% of all), in real estate and business - 45.8 thousand (15.2%), construction - 37.8 thousand (12.5%) and in the processing industry - 32.8 thousand (10.9%). For the largest agricultural industry - food Małopolskie include Okocim Brewery in Brzesk (Branch Carlsberg Poland), Can-Pack SA in Kraków (packaging), Production Plant Coca-Cola HBC Poland Sp. Ltd. Branch Niepolomice (soft drinks), Maspex in Wadowice (soft drinks), Krakow Wawel SA (sweets), distillery Polmos Krakow SA (alcohol beverages). Małopolskie private companies agri - food is mainly small local operators, of which 95% of employees to nine employees, and only 0.1% over 250 employees. The majority are young companies, because approximately 30% of them are less than five years. This clearly shows the weakness of the local business sector, lack of experience, under-investment and low potential for expansion of external markets. Strong point of local firms is innovation<sup>3</sup>.

## **The aim and methodology of the study**

Author of this paper has adopted the goal to present the most important determinant of the development of agribusiness - food in Malopolska province. To develop the survey results served as the chi-square test for multi-way tables. At each of the tables are test results, the number of degrees of freedom and indicates the level of significance. With three levels of significance 0.05 is also marked with a \* (statistically significant), 0.01 (\*\*) (highly statistically significant) and 0.001 (\*\*\*) (very highly statistically significant). There are three common used in the analysis of statistical significance levels. Choice test (chi-square for the multi-way arrays) was dictated by the nature of the studied traits (and survey questions). Response to each survey question - where to treat them as random variables - the variables are categorical (so measurable characteristics are grouped into classes such as profit, turnover,

number of employees) or nominal variables (the order or not). Only possible to apply a test of testing the relationship between such features is the chi-square test for multi-way tables.

### **Results of the study**

In making the identification of agricultural and industrial enterprises - the choice of the most important food industries has been done to carry out his research<sup>4</sup>. This choice was targeted.

Study was conducted in the cereal companies (30), confectionery (96), the dairy industry (36), fruit - vegetable branch (78) and the meat industry (49). Number of firms studied was different due to the large range of their occurrence in the designated industries. Some representatives were not interested in conducting research. However, large quantities of interviews carried out directly from respondents give us precise picture of the actual functioning of the sectors covered.

Enterprises of all industries have been tested against: the length of time of the business functioning (in years); the place of functioning (village / town); the size of the locality in which business is carried on the service area; ownership structure; legal form; ownership changes; the number of employees; turnover and profit of the companies and kinds of activities.

Predominant legal form of companies surveyed was one-man company - 117 (40,77%). Civil partnerships was 47 (16,38%), limited liability companies 42 (14,64%), cooperatives 32 (11,15%), partnerships (10,80%), public companies 17 (5,92%), and other - 1 (0,34%). Most of the one-man companies in the industry functioned in fruit – vegetable branch (37) and confectionery (36), and the fewest in the dairy industry (8). In other industries - meat and grain - their number was 22 and 14, respectively. This demonstrates the great advantages of this form of ownership in the test companies and suitability for business. Most civil partnerships were examined in confectionery (22), and the least in the dairy industry (5) and grain (3). As popular as partnerships were a limited liability company, the greatest number of which was in fruit – vegetable branch (13) and confectionery (10), and the fewest in the dairy industries (6) and grain (5). The fewest among the surveyed companies were joint stock companies, where the greatest number were due to the confectionery industry (6), and the smallest grain (1).

The number of different forms of business ownership in the surveyed sectors was also interesting. In the cereal the most of them were one-person businesses (14), and the fewest public limited companies (1), in the confectionery industry the most were sole proprietorships and the fewest limited liability companies (6) and cooperative (4). In the dairy industry most were cooperative (15), and at fewest limited liability companies (2). Partnerships did not occur at all. The fruit - vegetable industry has a clear advantage in sole proprietorships (37), and the fewest were the partnerships (2). Similar situation was in the meat industry, where the most studied were one-person businesses (22), and the fewest cooperative (1).

The second criterion, which was examined was the average life of companies in various industries. The calculations obtained on the basis of respondents' answers indicate that most of the companies were operating more than 20 years, found in grain fields, confectionery and dairy. The meat industry average period of the operation closed in the range 16 - 20, in the fruit industry - vegetable 6 - 10 years. The proportion of firms operating above 20 years was

in the order in sectors such as dairy (44.44%), grain (37.93%) and confectionery (23.96%). The highest proportion of young firms (up to 5 years) occurred in the field of fruit - vegetable (17.96%) and confectionery (15.62%) and lowest in the dairy industry (2.78%).

Most of the surveyed companies operated in urban areas (77,82%), where companies have an overwhelming advantage in the confectionery industries (82,98%) and dairy (80,56%). The fewest of the companies in urban areas were conducted in the cereal branch, where the percentage was 68.9%. In turn, most of all surveyed firms in rural areas worked in the grain sector (31,03%) and the fewest in the confectionery industry (17,02%). Undoubtedly this is due to the close market for goods produced by firms in these sectors.

The structure of activity among the companies surveyed is strongly dominated by trade (42,16%), which marked the advantage in sectors such as fruit - vegetables (52,21%), confectionery (46,11%), meat (43,02%) and dairy (42,65%), and in the cereal (26,83%). The second highest percentage of firms involved in the production (41,14%), most of which occurred in the grain sector (68,29%), confectionery (41,92%) and meat (41,86%), and the least was the fruit industry - vegetable (28,32%).

In addition, companies were engaged in transport (2.37%), services (5.41%), purchasing (6.57%) and other activities (0.35%). Most transport companies were examined in the confectionery industry (5.99%) and least in the field of fruit - vegetable (1.77%). In the fruit-vegetable industry operated the most service companies, and the smallest number in the meat industry (2.33%). Most buying companies was examined in the dairy industry (13.24%) and meat (10.47%) and least in the confectionery industry (1.20%).

In all surveyed industries, most companies worked in towns with a population over 100 000, the highest among them in the confectionery industry (43.75%) and fruit - vegetable (43.24%) and least in the fields of grain (27.59%) and meat (26.09%). Least companies surveyed have branches in major cities with the number of inhabitants from 10 000 to 19 999.

Mostly operated outlet was Malopolska (dairy and meat industry) and powiat (cereal and confectionery industry), and most companies serving the entire country worked in the field of fruit – vegetable branch.

The average range of employment in the surveyed companies was 9 - 49 people and was only higher in the dairy industry (in two ranges 50 - 249 and more than 250 people) and lowest in the fruit industry - vegetable (up to 8 persons). The average turnover of the surveyed companies was in the range of 1 000 001 - 10 000 000 PLN, and the average profit of 100 001 - 1 000 000 PLN.

The best in the market were the dairy industry companies that have achieved the highest turnover in the range 1 000 001 - 10 million PLN (43.39%) and more than 10 million PLN (9.68%). High turnover of more than 10 million PLN reached the other sectors: meat (8%), confectionery (4.65), fruit - vegetables (4.11%) and grain (3.33%).

The highest profit companies were in the dairy industry, including a profit of more than 10 million PLN in 3.13% of companies, and closing in the range of 1 000 001 - 10 000 000 PLN - 21.88%. Changes in forms of property after 1990 made an average of 15.33% of companies, which can be considered a small proportion in relation to the following changes in this period of transformation taking place in our country. Most changes took place in the cereal (24.11%) and least in the field of fruit - vegetable (8.47%) of companies surveyed.

## Conclusions

The presented findings may indicate a diagnosis of conditions the competitiveness of the agribusiness-food in Malopolska region. Presented empirical studies included analysis of key factors for the development of agribusiness - food in Malopolska province. They presented the relationship between the development of agro industries - food and selected determining factors for the development and economic efficiency of enterprises. It should also be noted that in addition to the above-mentioned factors important meaning in the development of agro business – food has a cooperation with self-government and participation of entrepreneurs in creating a global strategy for the development of the agri - food. Broad participation of the interested parties in developing strategies certainly contribute to its acceptance by local authorities, centres of power and provides a practical implementation. During the interviews conducted, respondents often stressed that one of the most important determinants of determining the competitive capacity of domestic and international companies agribusiness-food is institutional arrangements, and state interference in the functioning of the agri-business by means of social and economic policies conducive to generating their development. Entrepreneurs clearly in their statements stressed that the Polish integration with the European Union has encouraged the restructuring of companies. Today, however, are differing perceptions about the economic reality, but clearly say it's in favour of the current state of Polish market economy, and is treated as transparent and equal for all units on the market. They also agree with the views of Dewbre and Mishra, that the development of companies is of special importance to the interaction between macro and meso levels, because it affects their income situation<sup>5</sup>.

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