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# ASSESSMENT OF THE FINANCIAL SITUATION OF FOOD INDUSTRY IN POLAND IN 2005 AND 2010

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**Abstract.** The article assesses the financial situation of branches of the food industry in Poland in 2005 and 2010 and provides a linear order and classification of the branches by means of synthetic development measure, which was constructed using the TOPSIS method, basing on unpublished statistics of the Central Statistical Office. As results from the research, the financial situation of individual branches of food industry sector was diversified. Four typological classes differing in profitability, indebtedness level and financial liquidity were distinguished on the basis of the synthetic measure values. In spite of increasing crisis, in comparison with 2005, in 2010 the financial situation of food industry slightly improved, both in terms of profitability and management of current assets.

**Key words:** food industry, synthetic meter, TOPSIS method

## INTRODUCTION

Apart from agriculture and from branches providing means of production and services for agriculture, food industry is one of major sectors of the national economy and industrial branches [Davies, Goldberg 1957, Baourakis et al. 2002]. Long-term transformations in Polish food industry affected changes in production, property and entity structures, which favoured improvement in the competitive position of the industry on the Single European Market. Poland's accession to the European Union was a significant factor increasing the importance of food industry. In consequence, there was a remarkable boom in Polish foreign trade, which enabled Polish producers of agri-food products to gain competitive advantage. As a result of market changes, the branch structure of food industry was brought considerably closer to the structures of this industry in highly developed countries. This fact is also reflected by changes in the nutrition model and structure of the demand for food products. At present, Polish food industry is a match to the producers of food and beverages from other countries of the European Union. Before the accession, i.e.

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from 2000 to 2002, the rate of development in food industry was slow, rising 1.6% a year [Statistical Yearbook of Industry 2001, 2003]. Poland's accession to the EU structures created new possibilities for the food sector and simultaneously enforced the adjustment of mechanisms of Polish food economy to the requirements of common European market. According to the data of the Institute of Agricultural and Food Economics (National Research Institute), in 2003 the sold production of the sector increased by 7.7% on average and from 2004 to 2007 it increased by 6.3%.

The gross added value generated by the Polish food industry is about EUR 7.5 billion, which makes more than 4% of the GDP. This fact may also be confirmed by the share of the food industry in the sales value of the entire industry, which was nearly 24% in 2010. It is one of the highest shares in the industry among EU countries [Mroczek 2011]. The significant role of food industry in Poland is also proved by its share in employment – in 2005 nearly 417.6 thousand people were employed in food industry. In spite of layoffs in 2010, 395,000 people were employed in the industry, i.e. 4.9% of all people employed in Poland. In 2005, 18,000 entities ran their businesses, whereas in 2010 there were 16,000 entities [Statistical Yearbook of Industry 2005, 2011]. In food industry, sector of small entities, employing up to 9 people, accounted about 65% of all entities in food industry, whereas the percentage of large enterprises, employing 250 or more people, was systematically increasing. This trend was accompanied by an increasing scale of concentration. It is proved by the fact that more than 49% of value of sold production of food and beverages accounts for large entities. The importance of food industry is much greater than it would result from the figures quoted. It is decisive to feeding people and market balance. Thus, it is important to the condition of economy and to national economic security. Due to big importance of food industry to national economy, it is necessary to monitor the financial situation both in the entire sector and in its individual branches.

The aim of the article was to assess the financial situation of branches of food industry in Poland in 2005 and 2010 and to make a linear order and classification of branches by means of a synthetic development measure, which was constructed using the TOPSIS method, basing on the unpublished statistics of the Central Statistical Office.

## THEORETICAL BACKGROUND

The assessment of financial situation, defined as financial condition of a business entity, expressing its solvency and capacity to generate profit and increase financial and capital resources [Kowalak 2003], is a complex phenomenon, which means that it cannot be expressed with one trait or measured directly. Its precise and exhaustive description requires a large number of different aspects. In order to do so, usually a wide range of financial ratios are used, as they enable measurement of individual elements affecting the financial condition [Glynn et al. 2003]. The multidimensional character of the problem makes unequivocal assessment of financial situation difficult. Some ratios may point to a very good financial situation, whereas others may signal problems at the same time [Damodaran 2001, Block, Hirt 2005, Wędzki 2009]. In consequence of the diversified rules of assessment there is excessive subjectivity of interpretation. The synthetic trait (synthetic development measure) is a useful tool for assessment of financial situation

[Yurdakul, Ic 2003, Wang 2007]. The synthetic trait is constructed as a real function of directly observable simple traits, representing significant elements and relations of a complex phenomenon. According to Robertson [1984], in practice, without taking into account the usefulness of taxonomic methods for assessment of financial situation, they are given up in favour of simple ratio rules only. This article assesses the financial situation on the basis of synthetic trait, which was constructed on the basis of ratios, describing the enterprise's activity in fields of: profitability, indebtedness, financial liquidity and productivity [Forster 1996]. The selection of areas for analysis resulted from the fact that profitability, financial liquidity, financial independence and risk are four basic and interrelated criteria of assessment of financial situation of an enterprise, which enable assessment of its real income power [Kirsch 2004].

Profitability is usually measured as a ratio between the net financial result and income volume (ROS) or equity involved (ROE), i.e. the two categories which significantly contributed to achievement of those results [Palepu et al. 2000, Jansky 2002, Fabozzi 2003, Hawawini, Viallet 2006].

Debt ratios enable assessment of degree of financial security and the use of financial leverage, which is presented in this analysis as a capital multiplier, expressing the share of equity in total capital [Forster 1996, Birgham, Houston 2001]. The long-term debt ratio was calculated as the quotient of long-term debt and equity [Schroeder et al. 2011, Soboh et al. 2011]. The indebtedness level should correspond to the degree of debt protection and, above all, to the ability to pay back credit cost on time, i.e. interest. This element can be assessed with interest coverage ratio, which enables us to determine how many times the profit from the enterprise's activity (before taxation and interest payment) covers the annual value of interest paid [Wild et al. 2001, Kowalczyk, Kusak 2006]. The value of this ratio depends on the financial condition of entities and on the volume of incurred credits.

As results from the studies by Deloof [2003] and Lazaridis and Tryfonidis [2006], enterprises need to manage their inventory and receivables well and to have good payment capacity in order to be more effective. In view of this fact, another area of assessment of financial situation, concerned the financial liquidity. Liquidity ratios enable assessment of enterprise's capacity to settle their liabilities on time and to finance its current activity [Moyer et al. 1992, Weston, Birgham 1993]. In this group of ratios this analysis includes quick ratio, working capital cycle, inventory cycle and accounts receivable cycle.

The quick ratio provides information which part of high liquidity components of working capital, i.e. corrected with inventory, covers current liabilities. It is more rigorous than current liquidity ratio, because it is assumed that the enterprise's inventory is one of its least liquid assets [Moyer et al. 1992]. Zaleska [2002], Czekaj, Dresler [1998], Gołębiowski and Tłaczała [2005] report that the enterprise may settle its short-term liabilities on time if the ratio ranges between 1.0 and 1.2. Besides, the working capital cycle ratio was used to test liquidity as it enables us to assess for how many days of turnover there is enough working capital. Working capital, understood as the difference between current assets and current liabilities, is a financial category that is fundamental for assessment of liquidity and enterprise's valuation [Shulman, Cox 1985, Bernstein 1988]. The inventory cycle and accounts receivable cycle supplement the analysis of liquidity and at the same time they are an element of assessment of effectiveness of enterprise's activity.

The accounts receivable cycle shows a period of time that must elapse between deferred payment sales and encashment. Too long period of repayment is unfavourable to the enterprise, because it entails higher engagement of working capital or the possibility of occurrence of uncollectible receivables or hardly collectible receivables [Robertson 1983]. The inventory cycle is an important measure of the enterprise's operating effectiveness, which provides information within how many days of activity the inventory will run out. The less time elapses between the date of purchase and the date of sales, the better it is, because there is less inventory waiting in warehouses to be sold [Price et al. 1993].

## MATERIALS AND RESEARCH METHOD

In order to assess the financial situation of the food industry, unpublished statistical data of the Central Statistical Office for 2005 and 2010 were used (unpublished data from 2006 and 2011 – F-02. Statistical finencial statements...). The source materials concerned the financial data in branch system of food industry sector according to the Polish Classification of Activities (PKD). The system enabled assessment of 30 branches of food industry sector altogether, including 25 branches of food production and 5 branches of beverage production.

The financial situation of branches of food industry was assessed by means of a financial situation synthetic measure, which was constructed with the classic TOPSIS (Technique for Order Preference by Similarity to an Ideal Solution) method. The TOPSIS method belongs to the group of multi-criteria methods and it was first presented in 1981 [Hwang, Yoon 1981]. It can be regarded as a modification of Hellwig's taxonomic development model. The values of the synthetic measure of financial situation in branches of food industry were determined at following stages [Wysocki 2010, Aryanezhad et al. 2011, Florek et al. 2013]:

1. The selection of simple traits for partial determinants of financial situation was done on the basis of factual premises so that they would represent different groups of ratios, i.e. profitability, liquidity, effectiveness of activity and indebtedness. In order to eliminate simple traits, statistical analysis was applied. Excessively correlated traits with low variation of values were eliminated [Wysocki 2010]. Finally, nine simple traits were accepted for analysis, where the quick ratio and long-term debt ratio were assumed as nominants, the inventory cycle and accounts receivable cycle were assumed as destimulants and the others as stimulants of the financial situation. The research did not apply weights, assuming that each trait had the same share in the constructed synthetic trait. The traits assumed for analysis as ratios were calculated according to the following formulas (Table 1).
2. Normalisation of simple traits values by means of linear normalisation (zeroed unitarisation) – the character of the traits was standardised by conversion of destimulants and nominants into stimulants and by reducing the values of all traits to comparability.
3. Determination of coordinates of model units – the development model and the antimodel.
4. Calculation of the Euclidean distance of individual branches from the development model.

Table 1. The formulas of financial ratios applied in the study

| Name of ratio | Formula |
|---|---|
| Return on equity – ROE (%) | Net profit / Equity × 100% |
| Return on sales – ROE (%) | Net profit / Sales income × 100% |
| Equity multiplier – ER (–) | Total liabilities / Equity |
| Long-term debt ratio – LD (%) | Long-term liabilities/ Equity × 100% × 100% |
| Interest coverage ratio – ICR (–) | Net profit + Income tax + Credit interest / Credit interest × 100% |
| Quick ratio – QR (–) | Current assets – Inventory / Short-term liabilities |
| Working capital cycle – WCC (–) | Working capital / Sales income × 365 days[a] |
| Inventory cycle – IC (days) | Inventory / Sales income × 365 days[a] |
| Accounts receivable cycle – ARC (days) | Short-term receivables / Sales income × 365 days[a] |

[a]The working capital was calculated as the difference between current assets and short-term liabilities.
Source: The authors' own compilation based on Baourakis et al. [2002], Sierpińska, Jachna [2004], Gołębiowski, Tłaczała [2005], Czerwińska-Kayzer et al. [2013].

5. Calculation of the synthetic trait value. The answer is the best when a particular branch is at the shortest distance from the model unit – the development model and simultaneously it is at the longest distance from development antimodel. The measure $q_i$ assumes values from interval <–1, 1>. Higher values of measure indicate a better financial situation of the $i^{th}$ branch.
6. Linear ordering and classification of distinguished branches of food industry sector in terms of level of their financial situation. The classification was based on a statistical criterion using the arithmetic mean and standard deviation from the synthetic measure value.

## RESULTS OF RESEARCH – CLASSIFICATION OF BRANCHES OF THE FOOD INDUSTRY SECTOR

The synthetic measure value was calculated on the basis of standardised values of simple traits. It was used for linear ordering and classification of branches of food industry in 2005 and 2010.

As a result of the research, four typological classes differing in profitability, indebtedness level, financial liquidity and effectiveness of asset management were distinguished. The research results point to relatively high similarity in the distribution of branches of food industry according to the financial situation in 2005 and 2010.

Table 2 shows a classification of branches of food industry according to the values of synthetic measure TOPSIS in the years under analysis. Table 3 presents the intraclass values of partial measures of financial situation for the distinguished typological classes.

In the years under analysis, Class I comprised five branches of food industry, but only one of them, i.e. beer production, was included in this class in both years under study. In 2005 the following branches were also included in the class: production of prepared meals, production of other food products, production of other non-distilled fermented beverages and other soft drinks. On the other hand, in 2010 the class also included: production of

Table 2. The classification of branches of the food industry sector based on the value of the synthetic measure of financial situation

| Typological class | Level | Years | Synthetic measure limit values | Values of synthetic measure of financial situation for distinguished branches of food industry |
|---|---|---|---|---|
| I | High | 2005 | >0.5436 | Prepared meals and dishes (0.5805), Other food products n.e.c. (0.5631), Beer (0.5501), Other non-distilled fermented beverages (0.5494), Soft drinks; mineral waters and other bottled waters (0.5440) |
| | | 2010 | >0.4721 | Prepared feeds for farm animals (0.5048), Bread; fresh pastry goods and cakes (0.4927), Distilled alcoholic beverages (0.4766), Beer (0.4794), Margarine and similar edible fats (0.4738) |
| II | Upper intermediate | 2005 | 0.4808–0.5436 | Condiments and seasonings (0.5426), Processed tea and coffee (0.5418), Margarine and similar edible fats (0.5412), Prepared feeds for farm animals (0.5310), Bread; fresh pastry goods and cakes (0.5204), Meat and poultry meat products (0.5091), Processed and preserved poultry meat (0.5082), Malt (0.5031), Wine from grape (0.4879), Cocoa, chocolate and sugar confectionery (0.4870), Distilled alcoholic beverages (0.4849), Processed and preserved meat (0.4826) |
| | | 2010 | 0.4140–0.4721 | Prepared meals and dishes (0.4647), Prepared feeds for farm animals (0.4619), Condiments and seasonings (0.4589), Dairy and cheese products (0,4577), Rusks and biscuits; preserved pastry goods and cakes (0.4522), Sugar (0.4453), Meat and poultry meat products (0.4440), Processed and preserved poultry meat (0.4440), Processed and preserved meat (0.4359), Processed tea and coffee (0.4258), Ice cream (0.4192) |
| III | Lower intermediate | 2005 | 0.4180–0.4808 | Rusks and biscuits; preserved pastry goods and cakes (0.4774), Dairy and cheese products (0.4609), Ice cream (0.4608), Processed and preserved potatoes (0.4606), Processed and preserved fish, crustaceans and molluscs (0.4505), Cider and other fruit wines (0.4492), Other processed and preserved fruit and vegetables (0.4311), Homogenised food preparations and dietetic food (0.4272) |
| | | 2010 | 0.3560–0.4140 | Macaroni, noodles, couscous and similar farinaceous products (0.4119), Soft drinks; mineral waters and other bottled waters (0.4087), Other food products n.e.c. (0.3990), Processed and preserved fish, crustaceans and molluscs (0.3977), Wine from grape (0.3953), Cocoa, chocolate and sugar confectionery (0.3897), Processed and preserved potatoes (0.3822), Grain mill products (0.3697), Starches and starch products (0.3574), |
| IV | Low | 2005 | <0.4180 | Grain mill products, starches and starch products (0.4040), Oils and fats (0.4037), Fruit and vegetable juices (0,3757), Macaroni, noodles, couscous and similar farinaceous products (0.3648), Sugar (0.3334) |
| | | 2010 | <0.3560 | Homogenised food preparations and dietetic food (0.3426), Cider and other fruit wines (0.3270), Other processed and preserved fruit and vegetables (0.3157), Oils and fats (0.3117), Fruit and vegetable juices (0.2799) |

Source: The authors' own calculations.

Table 3. The intraclass trait values – partial measures of the financial situation for branches of the food industry sector – median values

| Ratios | Class | | | | | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | IV | | | |
| | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 |
| ROE | 14.85 | 27.19 | 11.84 | 16.78 | 12.03 | 10.80 | 7.59 | 7.36 | 11.50 | 13.44 |
| ROS | 2.18 | 7.38 | 3.43 | 3.72 | 3.53 | 5.04 | 3.04 | 3.13 | 3.32 | 4.56 |
| ER | 2.52 | 1.96 | 2.07 | 2.07 | 2.14 | 1.80 | 2.12 | 2.36 | 2.11 | 2.02 |
| LD | 22.47 | 23.43 | 23.50 | 25.68 | 20.79 | 11.54 | 14.35 | 20.81 | 20.20 | 21.33 |
| ICR | 3.76 | 14.67 | 6.70 | 9.83 | 6.83 | 8.70 | 3.79 | 4.61 | 5.86 | 8.70 |
| QR | 0.77 | 0.99 | 0.95 | 1.08 | 0.78 | 1.16 | 0.60 | 0.62 | 0.76 | 0.94 |
| WCC | 21.20 | 13.00 | 40.07 | 29.10 | 16.66 | 58.01 | 22.84 | 25.65 | 22.23 | 27.38 |
| IC | 29.17 | 13.30 | 27.00 | 23.71 | 31.73 | 31.39 | 63.35 | 68.54 | 34.29 | 31.39 |
| ARC | 58.81 | 33.07 | 49.94 | 39.99 | 52.15 | 67.49 | 46.74 | 48.24 | 53.16 | 46.15 |

Source: The authors' own calculations.

prepared pet foods, bread, distilled alcoholic beverages and margarine and similar edible fats. In the years under investigation Class I had the highest return on equity (14.85% in 2005 and 27.19% in 2010) and higher than average level of long-term debt (22.47 and 23.43%, respectively). In 2005 the indebtedness level had decisive influence on relatively high return on equity in the class. In 2005 the capital multiplier in Class I amounted to 2.52 and the mean value was 2.11. This points to the fact that enterprises from this class used the financial leverage effect in management. The return on sales had less influence on the return on equity. In 2005 its value was below average in food industry. In 2010 the situation changed, because the indebtedness level decreased, but simultaneously the share of long-term debt and financial costs coverage ratio increased. Besides, the return on sales grew by 5.2%, which points to greater control of factors related with sales. In that period, financial liquidity and management of inventory and receivables was also improved. In Class I, the inventory period shortened from 30 days in 2005 to 14 days in 2010. On the other hand, the accounts receivable cycle was 26 days shorter and it amounted to 34 days in 2010. On this basis we can say that branches in Class I had very high financial effectiveness, which they achieved thanks to effective management adjusted to the situation in economy. Depending on the needs, mechanisms of financial policy were used or assets were effectively managed.

In 2005 Class II was made up of 12 branches and in 2010 it consisted of 11 branches. 6 branches were included in the class in both periods, i.e. all branches related with meat processing, production of tea and coffee, condiments and seasonings and production of prepared feeds for animals. In 2005 Class II also included following branches: production of margarine, bread, grape wines, cocoa and chocolate, malt and distilled alcoholic beverages. On the other hand, in 2010 following branches were classified in this group: production of prepared meals ad dishes, dairy processing, production of rusks and biscuits, ice cream and sugar. The branches included in Class II had much lower return on equity than branches in Class I, but their level was higher than the average value for total food industry. Apart from that, the indebtedness in the class, including long-term debts was higher

than average in the whole sector. It is necessary to stress the fact that relatively high long-term debts, which reached 25.68% (the average was 21.33%) in the class in 2010, did not cause a danger of increased risk of solvency loss. In both periods under study, the interest coverage ratio was higher than average and it amounted to 6.70 in 2005 and 9.83 in 2010. In both periods under investigation, the financial liquidity in Class II was also higher than average in the whole sector. Its level was determined by shorter periods of inventory cycle and accounts receivable cycle. Inventory in this class was replenished on average every 27 days in 2005 and every 24 days in 2010. The average waiting time for receivables was 50 days in 2005 and 40 days in 2010. The average for the total food industry was 54 and 47 days, respectively. In the years under investigation, Class II had similar values of the return on sales and capital multiplier, which are partial measures of the ROE. This may point to the fact that in branches of this class, sales and financial policies had similar influence on the achieved results.

Class III was made up of eight branches in 2005 and of nine branches in 2010. Only two of them, i.e. the processing of potatoes and fish and crustaceans, appeared in the class in both years. In 2005 the following branches were also included in the class: production of homogenised food preparations, cider, ice cream, rusks and biscuits, dairy and cheese products and other processed and preserved fruit and vegetables. In 2010 Class III also included branches related with production of soft drinks, other food products, grape wine, cocoa and chocolate, noodles and similar farinaceous products, grain mill products and starch. In 2005 in Class III the return on equity was 12.03% and in 2010 it was 10.80%, where the average values in the food industry were 11.50 and 13.44%, respectively. At the same time, the return on sales in this class was the highest of all classes. In 2005 the ROS was 3.53%, and in 2010 – 5.04%, where the average values were 3.32 and 4.56%, respectively. High dynamics of indebtedness level was characteristic in this class. In comparison with 2005, the equity debt decreased by 44.49%. In 2005 it was higher and in 2010 it was lower than the average value in total food industry. In the years under study, the financial liquidity was higher than an average value in the sector and in 2010 it was the highest of all classes. Higher liquidity in 2010 resulted from lower level of short-term liabilities, which coincided with higher level of receivables. In 2010 the accounts receivable cycle was 15 days longer than in 2005 and it amounted to 68 days. Poor collectability of receivables was accompanied by good management of inventory, which was replenished every 32 days in this class in both years. The branches of Class III had low financial effectiveness, conservative financial policy and quick rotation of material working assets.

Class IV, which was characterised by the poorest financial situation, was made up of five branches, two of which remained there during the whole period under analysis – juice production and oil production. In 2005 the class also included production of sugar, noodles, grain mill products, starches and starch products. In 2010 the following branches were also classified in the group: production of homogenised food preparations, cider and other processed and preserved fruit and vegetables. The branches in Class IV had the lowest return on equity, which was determined by low return on sales, poor effectiveness of inventory management and low financial liquidity. Simultaneously, there was high total debt and low capacity to settle financial costs. The lowest liquidity (0.60 in 2005

and 0.62 in 2010) was the consequence of high level of short-term liabilities, which was higher than in the other classes, and low level of receivables and cash. It is necessary to stress the fact that in Class IV in both years under study there was a branch with the lowest level of liquidity (production of oils). Besides, the class included branches with the longest inventory cycles. The average inventory storage period in Class IV was 64 days in 2005 and 69 days in 2010, where the average time in the whole sector was 35 days and 32 days, respectively. Longer inventory periods in this class cannot be negatively assessed, because they result from the need to have an appropriate amount of reserves of raw materials rather than from the collection of product inventories. Class IV included fruit and vegetable processing plants, oil factories and the enterprises producing starch. Long periods of receivables payment combined with the low liquidity ratio point to the accumulation of receivables, which may threaten payment backlogs and further deterioration of financial situation in branches in this class.

## SUMMARY AND CONCLUSIONS

This article used a synthetic measure of assessment of the financial situation for linear order and classification of branches of food industry in Poland in 2005 and 2010.

As results from the study, the financial situation of individual branches of the food industry was diversified. Four typological classes differing in profitability, indebtedness level and financial liquidity were distinguished on the basis of synthetic measure values. Branches in Class I had the best financial situation. Enterprises operating in those branches in the years under study had the highest return on equity, which was accompanied by higher than average long-term debt. It is worth stressing that in 2010, total debt level decreased, but simultaneously long-term debt value increased. This situation may be explained with banks' stricter credit policy, resulting from the increasing economic crisis. The return on sales also increased and financial liquidity improved during that period, which points to the fact that enterprises in this class paid special attention to control of times of receivables collectability and settlement of liabilities. Enterprises in the branches of Class IV had the weakest financial condition. In 2005 and 2010 they had low return on equity, which was the consequence of worse inventory management and mistakes in their sales policy. This also determined the enterprises' level of financial liquidity and their solvency.

To sum up, on the basis of the study we can conclude that in comparison with 2005 in 2010, the financial situation in branches of food industry sector slightly improved both in terms of their profitability and management of current assets. The distribution of branches in food industry indicates that a vast majority of them have a similar approach to the risk of engagement of borrowed capital to finance their business activity and they have a conservative trade credit strategy.

The presented results should be treated with caution for individual branches, as only full multivariate causal analysis of individual branches would allow for the actual assessment of their financial situation.

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## OCENA SYTUACJI FINANSOWEJ PRZEMYSŁU SPOŻYWCZEGO W POLSCE W 2005 I 2010

**Streszczenie.** W artykule dokonano oceny sytuacji finansowej branż sektora przemysłu spożywczego w Polsce w latach 2005 i 2010, a także ich uporządkowania liniowego i klasyfikacji przy zastosowaniu syntetycznego miernika rozwoju, skonstruowanego za pomocą metody TOPSIS, na podstawie niepublikowanych danych statystycznych, pochodzących z Głównego Urzędu Statystycznego. Z przeprowadzonych badań wynika, iż sytuacja

finansowa poszczególnych branż sektora przemysłu spożywczego była zróżnicowana. Na podstawie wartości syntetycznego miernika wyodrębniono cztery klasy typologiczne, różniące się pod względem rentowności, poziomu zadłużenia i płynności finansowej. Mimo pogłębiającego się kryzysu w 2010 roku sytuacja finansowa przemysłu spożywczego nieznacznie poprawiła się w porównaniu do 2005 roku, zarówno pod względem rentowności, jak również gospodarowania majątkiem obrotowym.

**Słowa kluczowe:** przemysł spożywczy, syntetyczny miernik, metoda TOPSIS

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