Folia Oeconomica
Acta Universitatis Lodziensis
ISSN 0208-6018 e-ISSN 2353-7663
www.czasopisma.uni.lodz.pl/foe/
4(336) 2018

DOI: http://dx.doi.org/10.18778/0208-6018.336.02

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The Impact of the Global Economic Crisis on the Performance of Industries and Firms in Poland. Does Internationalisation Matter?*

Abstract: The global economic crisis has significantly altered the landscape of contemporary business markets worldwide. This article aims to verify how severely the economic crisis affected Polish industries and changed the competitive position of Polish companies. The authors put forward a research proposition which states that companies open to foreign cooperation (both exports and imports) were more likely to suffer from economic disturbances than companies that were domestically focused. The outcomes of the study are twofold. First, 24 manufacturing industries were ranked to check which of them suffered the most and the least as the result of the economic crisis. Secondly, using the

* This study was financed by a research grant from the Polish Science Centre, awarded based on decision no. 2012/07/B/HS4/03050.

CATI method 701 companies operating in the above-mentioned industries were surveyed. The analysis details how the competitive position of these companies was shaped depending on their degree of internationalisation. The obtained results were afterwards compared with a previously conducted literature review, and the article attempts to present the impact of the global economic crisis on both industries (mesoeconomic perspective) and individual companies (microeconomic perspective).

Keywords: internationalisation, economic crisis, competitive position, firm, industry, Poland

JEL: F23, F61, L25, M16

1. Introduction

The rapid deterioration of the world economy at the end of the first decade of the 21st century caught the attention of politicians, economists and the general public. As a result a growing number of studies have recently been conducted on the global financial and economic crisis, and in particular on its causes (see e.g. Allen, Carletti, 2010; Merrouche, Nier, 2010; Szyszka, 2011), its influence on national economies (see e.g. Ngowi, 2010; Meyn, Kennan, 2009; Yilmaz, 2013), and its lasting consequences (Allen, Carletti, 2010; Claessens, Kose, Terrones, 2010).

Undoubtedly, it can be assumed that the economic crisis, economic recession or even depression is reflected in the real economy and is associated with deteriorating economic output. Among these terms the simplest and least controversial seems to be the definition of an economic slowdown, which can be understood as a visible slowdown of the economic growth rate. On the other hand, according to the theory of business cycles a recession is just one of the natural phases of the classical business cycle. In practice, an economic recession is usually considered to be a period in which at least two consecutive quarters suffer a decrease in economic activity in a country. This is reflected by a decrease in real gross domestic product, i.e. the value of all the goods and services produced in the country, adjusted for inflation (Claessens, Kose, Terrones, 2012; Krzak, 2013).

The economic crisis may have directly or indirectly influenced the competitive potential, market position and strategies adopted by companies. Regardless of whether companies treated it as a threat or as an opportunity, it has changed the present state of many Western European markets. Therefore, the first aim of the study was to verify which Polish industries suffered most as a consequence of the global slowdown and which prospered relatively well. The study concentrated on 24 manufacturing industries which constitute a vital part of the Polish economy and create a significant part of the country's wealth. Secondly, 701 Polish companies were surveyed to investigate the impact of the crisis on their competitive position and internationalization. Thus, the aim was to investigate if the results of the meso level analysis (industries) were reflected by the results of the micro level analysis (single companies from these industries), and in particular to check

if the internationalisation of firms played a role, as well as to investigate the impact of the economic crisis on these firms performance.

Microeconomic analyses, focusing on the effects of the crisis, are of particular value, since companies are the entities whose post-crisis responses strongly affect the ability of the whole economy to emerge from the economic slowdown and bring it back to the former development path.

2. Economic crises, internationalisation and competitive position of companies

One of the key questions in research on the internationalisation of companies is whether any increase in its degree is beneficial to their economic results (Verbeke, Li, Goerzen, 2009). Thus, the paper attempts to contribute to the discussion on the interdependencies between internationalisation and performance. However, the related academic debate remains inconclusive (Matysiak, Bausch, 2012; Sullivan, 1994: 328). According to Luo (2002) the predominant focus on a direct link between the degree of internationalisation of a firm and its performance is not always justified, since performance is an offshoot of its capabilities, leveraged in international markets. There are papers pointing to positive interdependencies between the level of internationalisation and company performance with a linear relation between both variables (Matysiak, Bausch, 2012: 198; Barłożewski, 2017). However, other studies showed a U-shape curve, J-shape curve or even M-shape curve as the graphic representation of the relationship between internationalisation and performance (Rugman, Oh, 2010: 483; Annavarluja, Beldona, 2000: 55). The differences in the results found in the literature may be attributed to the different methodologies applied and different interpretations of the same phenomenon, namely the degree of internationalisation (Ietto-Gillies, 2009: 63–64; Karasiewicz, 2013: 184; Sprague, Ietto-Gillies, 2014: 39). From the whole bundle of possibilities, the operational indicators – the share of export sales in total sales and the share of imports in total purchases – were used as measures for the depth of internationalisation; with the number and diversity of foreign markets serving as measures for the breadth of internationalisation. Both dimensions contribute to the degree of internationalisation.

Therefore, it is legitimate to consider the role of the external environment in this relationship, since the economic crisis has been found to affect the competitive position of firms (Antonioli et al., 2011; Berrill, Kearney, 2011; Teece, Pisano, Shuen, 1997; Wu, 2010). In this context, competitive position can be defined as the outcome of the market evaluation of a firm's offering. Variables expressing this dimension can be classified into three basic groups: financial results (i.e. prof-

its, rate of return on assets, rate of return on investments, etc.), market results (i.e. profit, market share, etc.) and shareholders results (i.e. shareholder total return, economic value added, etc.) (Richard et al., 2009).

One feature of competitive position is its relative and evaluative character. To decide about a company's competitive position, one has to compare the performance of that company with its competitors. Bearing in mind the authors' attempts to identify the interdependencies between the internationalisation and competitive position of companies in the context of the economic crisis, particular attention has to be paid to the position of competitors in the foreign markets. The dynamics of foreign competitors' competitive position, rather than that of domestic competitors, seems to be of greater importance for firms eager to internationalise. Another key aspect is the above mentioned relative character of competitive position. The deterioration of a company's performance does not always mean the weakening of its competitive position. It can happen that competitors experience even greater losses regarding profits, sales and market share. In such cases the firm is still more competitive in terms of its position than competitors.

As shown for small and medium enterprises (SMEs) in particular, published studies clearly point to the negative effects of the crisis on the competitive position of domestic firms; including *inter alia* a decline in orders and sales as well as delayed or cancelled payments (Orłowski et al., 2010), a decline in corporate value and increases in costs (Grądzki, Zakrzewska-Bielawska, 2009; Brojak-Trzaskowska, Porada-Rochoń, 2012), worsening financial results (Michoń, 2011; Nečadová, Breňová, 2010; Scholleova, 2012), and reduced ability to obtain credit (Zieliński, 2009).

However, while there is substantial evidence for the crisis having negative effects on a firm's competitive position, there are firms which are able to improve their competitiveness even under unfavourable external conditions (Tushman, Anderson, 1986). The effect of the crisis on a firm's economic condition can be contingent upon, *inter alia*, the country where the company is located (Berrill, Kearney, 2011), company age (Burlita et al., 2011; Latham, 2009; Shama, 1993), industry sector (Vissak, 2011; Zelek, Maniak, 2011), the competitive strategy pursued (Latham, Braun, 2010), company size (Burlita et al., 2011), the resources possessed (Teece, Pisano, Shuen, 1997; Türel, Türel, Needles, 2012; Wu 2010), and the degree of internationalisation (Antonioli et al., 2011). It is this latter moderating variable that we will focus on in the remainder of this paper. Nevertheless, these studies do not distinguish between the changes in relation to domestic and foreign competitors when diagnosing the impact of the economic crisis on the performance of companies.

A number of studies have investigated the relationship between the economic crisis and company internationalisation. Welch and Luostarinen (1988: 36) define company internationalisation as "the process of increasing involvement in international operations". Since both organisational and environmental complexity increase with the widening of a company's international operations (Verbeke, Li,

Goerzen, 2009), Calof and Beamish (1995) argue that internationalisation is related to adapting the company's operations to international environments; which pertains to their strategy, structure and resources. This process involves various choices; such as those of foreign markets, operating modes, entry timing, competitive strategies, as well as international allocation and the coordination of value-adding activities (Kutschker, Schmid, 2008). Crises and international expansion have a relatively complex relationship. Zelek and Maniak (2011) argue that SMEs most frequently choose defensive rather than offensive reactions to a crisis. Furthermore, in the context of Polish SMEs there is evidence of a rather low perceived effectiveness of expansion into new markets (see: Burlita et al., 2011). Crisis symptoms, such as exchange rate fluctuations, seem to prompt firms to limit export activities (Kowalczyk, 2012). Export propensity under crisis conditions, however, may be of benefit in improving one's competitive position in the home market, as well as possessing superior capabilities as compared to one's competitors (Lee et al., 2009). Conversely, there is research indicating that export activity can minimize the financial effects of a crisis (Wołodkiewicz-Donimirski, 2010), enhance the ability to survive (Amendola et al., 2012), as well as improve the ability to cope with uncertainty and achieve a higher competitive position if a company simultaneously possess a solid knowledge of the host countries and the business relationships in the host countries (Jansson, Hilmersson, Sandberg, 2010).

With regard to foreign direct investment (FDI), which can be considered as the most advanced form of internationalisation, the economic crisis can lead to disinvestment (Benito, Welch, 1997; Filippov, 2011). However, this propensity has been found to depend on the degree of ownership control by the parent over the foreign subsidiary (Chung, Beamish, 2005; Williams, Martinez, 2012). Moreover, the success of FDI under crisis conditions is affected by several factors, such as cooperation with local and foreign partners (Vissak, 2011), international experience (Figueira de Lemos, Hadjikhani, 2011), pre-crisis performance (Filippov, Kalotay, 2011) or home-country government support (Filippov, 2011). Not least, one must also consider the nature of the foreign market activity. Foreign ventures oriented towards further exports instead of local market development show a lower survival rate (Chung et al., 2010). The relative crisis resistance of FDI from certain countries, particularly emerging ones, may result from the relative stable economic growth of home economies, as well as the entrepreneurial orientation of the investors themselves (Wąsowska, Obłój, 2013). Moreover, the crisis period may pose an opportunity to favourably acquire foreign firms (Sauvant, Maschek, McAllister, 2010).

Finally, as far as the effect of internationalisation under crisis conditions on the competitive position of companies is concerned, it is not unambiguous and hinges upon a number of contingencies, such as the location of internationalisation (Vissak, 2011). Some firms move production to countries with lower labour costs, while others focus on high growth markets or specific product niches. There is some

evidence that more internationalized and more internationally experienced firms may improve their competitive position during economic crises due to the learning effect during foreign expansion, as well as the leverage of different business contacts (Figueira de Lemos, Hadjikhani, 2011). Not least, one has to consider the pre-crisis strategic position of foreign ventures as a factor supporting the competitive position under crisis conditions (Filippov, Kalotay, 2011), as well as the sector of activity of the internationalizing company (Filippov, 2011). Likewise, exports supporting FDI and investments in production may enhance the operating flexibility of the parent company under crisis conditions (Lee, Makhija, 2009).

When considering the impact of internationalisation as an intermediate variable in the relationship between crisis conditions and a company's competitive position, one must also consider the structure, or profile of internationalisation. In fact, a broad network of international operations allows companies to react more rapidly to changes in the environment, for instance by adjusting production locations to cost levels (Kogut, Kulatilaka, 1994; Roberts, Tybout, 1997). Under crisis conditions firms seek to limit their risk in locations with higher uncertainty, thus preferring more stable markets (Hryckiewicz, Kowalewski, 2010) and diversifying their international risks (Trąpczyński et al., 2016). Hence, the following working proposition was formulated:

> Companies which exposed themselves to markets most affected by the economic crisis would observe more negative effects on their competitive position.

3. Methodology of the study

The study has been divided into two parts. Firstly, the intention was to create a ranking of industries most and least affected by the economic crisis. The data for this analysis were derived from the Main Statistics Office of Poland. Information was gathered concerning all the divisions and groups of economic activity within manufacturing sectors, though sectors like, for example, construction, gastronomy, agriculture, health care, etc., were not included in the following analysis as they operate mainly within the national market. Therefore, the database encompassed information relating to 24 divisions of manufacturing sectors that are referred to as industries. Within the index created for ranking purposes the following data was used:

1) number of employees (in thousands) ,
2) revenues from total activities (in millions PLN),
3) net value of fixed assets (in millions PLN),
4) investment outlays (in millions PLN),
5) net financial results (in millions PLN).

When gathering empirical information, attention was also paid to the availability of data and maintaining comparability within the group even in cases of industries that differed significantly from the rest of the sample. Therefore, instead of using the above-mentioned indicators as nominal values, they were used to indicate changes that happened during the year 2009 as compared to 2007 (Table 1). In particular, all the data was transformed in a manner allowing the expression of existing differences. Information concerning the number of employees, revenues from total activities, net value of fixed assets, and investment outlays was transformed into a percentage deviation of values for 2009 when compared to the values for 2007. The only exception was the indicator referring to financial results, as in a few of the industries negative net financial results were generated during the analysed period. Therefore, in this case the data was transformed by subtracting the values for the year 2009 from the results for 2007.

Table 1. Indicators used within the synthetic index

Data	Transformation	Studies using data of similar character
Number of employees	Percentage deviation from baseline	Sato (2000); Kildiené, Kaklauskas, Zavadskas (2011)
Revenues from total activities	Percentage deviation from baseline	Sato (2000); Czapliński (2011); Kildiené, Kaklauskas, Zavadskas (2011)
Net value of fixed assets	Percentage deviation from baseline	Sato (2000)
Investment outlays	Percentage deviation from baseline	Czapliński (2011)
Net financial results	The difference in baseline	Sato (2000)

Source: own studies

Having established the ranking, the microeconomic level was referenced to verify how companies dealt with the crisis outcome. Three groups of indicators were taken into consideration, trying to combine both subjective and objective impact measures. Our proprietary electronic database featured the complete contact and financial records for a total of 2533 firms representing the 7 selected industries. From them, 750 firms were contacted in July and August 2015 and 701 completed questionnaires were accepted as reliable data, resulting in an effective response rate of 25% (Table 2).

The timeframe of the study embraces the period 2009–2013. The year 2009 is recognised as the crisis period, while the years 2010–2013 represent the post-crisis time. The first symptoms of the global economic crisis in Poland were only visible in the second half of 2008, hence the year 2009 was defined as the period of the crisis. The growth of GDP in 2009 was 1.79%, down from 5.13% in 2008. In 2010, GDP growth recovered to a level of 3.88% (World Development Indicators, 2015).

Table 2. Sample characteristics (N = 701)

		2009	2010	2011	2012	2013
Industries least affected by the crisis	Micro	38	40	44	48	48
		(5.99%)	(6.31%)	(6.94%)	(7.57%)	(7.57%)
	Small	197	194	187	184	185
		(31.07%)	(30.60%)	(29.50%)	(29.02%)	(29.18%)
	Medium	267	268	265	260	256
		(42.11%)	(42.27%)	(41.80%)	(41.01%)	(40.38%)
	Large	132	132	138	142	145
		(20.82%)	(20.82%)	(21.77%)	(22.40%)	(22.87%)
Industries most affected by the crisis	Micro	5	5	7	7	7
		(7.46%)	(7.46%)	(10.45%)	(10.45%)	(10.45%)
	Small	26	26	23	24	24
		(38.81%)	(38.81%)	(34.33%)	(35.82%)	(35.82%)
	Medium	20	20	21	21	21
		(29.85%)	(29.85%)	(31.34%)	(31.34%)	(31.34%)
	Large	16	16	16	15	15
		(23.88%)	(23.88%)	(23.88%)	(22.39%)	(22.39%)

Source: own studies

4. Results of the research

4.1. The impact of the economic crisis on industries – the identification of winners and losers at the meso level

During the selection of indicators for the synthetic index an attempt was made to take into account the most important information reflecting the scale of changes in terms of enterprises' operations that took place during the global economic crisis. Information concerning the number of employees and revenues from total activities were used, as they reflect changes in terms of the scale of companies' operations. The inclusion of data concerning the net value of fixed assets and investment outlays was intended to detail the investments made by the companies, and as such, it reflected their development potential. Incorporating net financial results enabled the financial results generated from economic activities to be assessed, as this mirrors the effectiveness of an enterprise's actions.

The set of indicators mentioned in Table 1 was verified in terms of sufficient volatility (the potential informational value of each of the analysed characteristics was checked). For all the included variables the coefficient of variation was greater than 0.2. Since our index was to reflect the scale of the negative impact of the global economic crisis on the economic situation of the analysed industries, all in-

dicators were considered as destimulants. When performing the analysis, the raw data was transformed into indicators that were standardized. Next, the index was calculated and the results were ranked. The same weight was assigned to all diagnostic features in the analysis. A ranking created in the described manner had the properties of linear ordering. This means that each object had at least one and not more than two neighbours, when an i-object had an i'-object as a neighbour then the i'-object was also the neighbour of the i-object, and exactly two objects had only one neighbour.

Such a synthetic index indicates industries that had been the most and the least severely influenced by the negative impact of the global economic crisis. A high index value (a high position in the ranking) means that compared to the year 2007, within the applied diagnostic features and based on the background of the analysed industries, a deterioration of the economic situation of an industry took place in the year 2009. The higher the value of the index (position in the ranking) the greater the scale of negative changes or the smaller the positive changes in comparison to other industries. Table 3 presents the values of the index and ranking positions for the analysed industries.

Table 3. Synthetic index – the scale of negative changes among manufacturing industries during the global economic crisis

Position in the ranking	Industry	Index value
1	Manufacture of basic metals	89.18
2	Manufacture of leather and related products	77.71
3	Manufacture of wearing apparel	72.21
4	Manufacture of wood, cork, straw and wicker products	68.52
5	Manufacture of other non-metallic mineral products	68.15
6	Manufacture of textiles	65.11
7	Repair and installation of machinery and equipment	62.69
8	Manufacture of motor vehicles, trailers and semi-trailers	62.43
9	Printing and reproduction of recorded media	61.79
10	Manufacture of machinery and equipment	60.50
11	Manufacture of tobacco products	60.10
12	Manufacture of other transport equipment	59.33
13	Manufacture of beverages	56.32
14	Manufacture of rubber and plastic products	54.37
15	Manufacture of chemicals and chemical products	53.00
16	Manufacture of electrical equipment	51.31
17	Manufacture of metal products	51.24
18	Manufacture of furniture	50.25
19	Manufacture of paper and paper products	47.54
20	Manufacture of food products	46.69

Position in the ranking	Industry	Index value
21	Manufacture of computer, electronic and optical products	44.42
22	Other manufacturing	42.30
23	Manufacture of pharmaceutical products	41.95
24	Manufacture of coke and refined petroleum products	40.68

Source: own studies based on data from GUS (2008; 2010)

In 2009, among the analysed industries, deteriorating diagnostic features were the most common in terms of the number of employees, investment outlays and net financial results compared to the year 2007. A reduction of employment took place in 21 industries, a reduction of investment outlays occurred in the case of 19 industries, and a deterioration of net financial results affected 15 industries. At the same time, throughout the entire manufacturing section, the biggest decreases concerned net financial results (a decrease of approx. 27% compared to 2007), investment outlays (a reduction of approx. 8%), and employment (a reduction of slightly less than 8%). Therefore, although a deterioration of net financial results in the analysed period took place in fewer industries than was the case for a reduction in investment outlays or the number of employees, the strength of the negative changes in the first was significantly higher.

In the analysed period, within the manufacturing section, revenues from total activities increased. However, this change was small and only amounted to slightly more than 3%. On the other hand, a significant rise took place in terms of the net value of fixed assets, which increased by almost 13%. This means that in 2009 manufacturing companies made significant investments, which exceeded the value of the assets depreciated in 2008–2009.

In 2009 there was only one industry in which all the diagnostic features worsened – the manufacture of leather and related products. For seven other industries (manufacture of textiles; manufacture of wearing apparel; manufacture of wood, cork, straw and wicker products; printing and reproduction of recorded media; manufacture of other non-metallic mineral products; manufacture of basic metals; repair and installation of machinery and equipment) a deterioration took place in relation to four out of the five analysed indicators. At the same time, in our analysis, there was no industry for which all the diagnostic features improved. An improvement of three features occurred in the case of the manufacture of paper and paper products, the manufacture of other transport equipment, and the manufacture of furniture.

4.2. The impact of the economic crisis on industries – self-assessment of winners and losers at the micro level

Identifying the industries most severely impacted by the economic crisis, regarded as weak industries; and those that did relatively well during the time of crisis, regarded as strong industries; enabled verification as to whether self-assessment of companies from particular industries reflected the impact of the turbulences visible at the industry level. The impact of the economic crisis on the whole industry was diagnosed using secondary statistical data and is described in detail in the section above. The impact of the economic crisis on the firms that participated in the research was evaluated using the CATI method. The questions asked were indicated on an ordinal scale <–3/+3> where –3 stood for a very negative impact of the crisis and +3 stood for a very positive impact of the crisis on the companies. Looking at the results presented in Table 4 it can be noticed that the share of companies experiencing very negative (2.99%), negative (10.45%) and slightly negative (31.34%) impacts from the crisis on their operations is higher in the case of entities from those industries most severely impacted by the crisis according to the results of analysis at the meso level. The share of firms reporting slightly positive (2.68%) and positive (2.05%) impacts from the crisis on their operations is higher in the case of companies from industries that were doing relatively well during the economic crisis.

Table 4. Self-assessment of the impact of the crisis on company operations from the weakest and the strongest industries (N = 701)

	Weak industries		Strong industries		Combined	
The strength and direction of the impact	**No. of firms**	**Share in the category**	**No. of firms**	**Share in the category**	**No. of firms**	**Share in the category**
Very negative (–3)	2	2.99%	8	1.26%	10	1.43%
Negative (–2)	7	10.45%	58	9.15%	65	9.27%
Slightly negative (–1)	21	31.34%	122	19.24%	143	20.40%
Neutral (0)	35	52.24%	416	65.62%	451	64.34%
Slightly positive (1)	2	2.99%	17	2.68%	19	2.71%
Positive (2)	0	0.00%	13	2.05%	13	1.85%
Very positive (3)	0	0.00%	0	0.00%	0	0.00%
:	67	100.00%	634	100.00%	701	100.00%

Source: own studies based on empirical research

To check if the differences in self-assessment of the impact of the crisis on company operations were statistically significant, the authors carried out the non-parametric Mann-Whitney U test.

An examination of the findings in Table 5 shows that the results of the Mann Whitney U test, applied to compare self-assessment of the impact of the economic crisis on company operations from the weakest and the strongest industries, revealed a statistically significant difference (Z adj = 2.40, p = .002 < .05). The average rank as to the impact of the crisis on companies from the weakest industries was 20297, while those from the strongest industries had an average impact rank of 225754.

Table 5. Self-assessments of the impact of the crisis on company operations from the weakest and the strongest industries – Mann Whitney U test (*N* = 701)

Sum of ranks		U	Z adj.	p	Number of firms	
The strongest industries	The weakest industries				The strongest industries	The weakest industries
225754	20297	18019	2.40	0.02	634	67

Source: own studies based on empirical data

4.3. The competitive position of winners and losers

The impact of the economic crisis on the performance of whole industries, evaluated using secondary statistical data, is reflected in the perceptions of competitive position by companies. The competitive position of firms was evaluated using five variables (profitability, sales growth, market share, overall financial condition, customer satisfaction) and a 7-point Likert scale, where –3 stands for "much worse than direct competitors", and +3 stands for "much better than direct competitors". Representatives of the firms were asked to evaluate the variables in the crisis period (2009); a time of prosperity (2011) and shortly after (2013). Table 6 presents the descriptive statistics and the results of the Mann Whitney U-test for companies from the strongest and the weakest industries. The perceptions of competitive position were on average worse among companies from the industries severely impacted by the economic crisis. Companies from the industries that did relatively well during the crisis evaluated the five variables describing their competitive position as higher during the crisis period, the time of prosperity and shortly after. Additionally, it is noticeable that the differences in the growth of sales and general financial condition between companies from the weak and from the strong industries are statistically significant in the crisis year in Poland (2009), during the prosperity represented by 2011, and shortly after.

Table 6. Output competitiveness (competitive position), descriptive statistics and the Mann Whitney U test

Output competitiveness – competitive position	IN	2009				2011				2013			
		MN	SD	Z adj.	p	MN	SD	Z adj.	p	MN	SD	Z adj.	p
Profitability	W	0.30	1.54	1.70	0.09	0.36	1.57	1.80	0.07	0.25	1.55	3.55	0.00
	S	0.59	1.49			0.68	1.42			0.94	1.45		
Sales growth	W	0.28	1.53	2.33	0.02	0.33	1.54	2.04	0.04	0.28	1.56	3.47	0.00
	S	0.73	1.51			0.71	1.44			0.96	1.44		
Market share	W	0.31	1.51	1.72	0.09	0.31	1.54	2.09	0.04	0.25	1.55	3.58	0.00
	S	0.61	1.47			0.70	1.45			0.94	1.46		
Overall financial condition	W	0.25	1.58	2.54	0.01	0.39	1.60	2.38	0.02	0.22	1.58	3.53	0.00
	S	0.75	1.51			0.85	1.46			0.93	1.50		
Client satisfaction	W	0.82	0.94	1.78	0.08	0.82	0.94	1.92	0.06	0.84	0.96	1.92	0.05
	S	1.00	0.92			1.01	0.91			1.02	0.91		

Source: own studies based on empirical data

4.4. Intensity of internationalisation for winners and losers

The internationalisation of companies was evaluated using two indicators: the share of imports in total purchases and the share of exports in total sales. The findings presented in Table 7 reveal that companies from industries that performed better during the economic crisis and after were more involved in exporting than entities from industries that faced difficulties during the crisis and after. These latter companies were more involved in importing than entities from more successful industries, which signals their stronger dependence on foreign production factors. The same entities were more dependent on Western Europe as their export market, which could explain the worse perception of their competitive position and later, worse performance of the industries they represent (Table 8).

Table 7. Depth of internationalisation – descriptive statistics and Mann Whitney U test

	IN	2009				2011				2013			
		MN	SD	Z	p	MN	SD	Z	p	MN	SD	Z	p
Share of imports in total purchases (%)	W	5.49	12.62	–2.43	0.01	5.81	13.02	–2.49	0.01	5.90	12.81	–2.53	0.01
	S	4.42	13.31			4.47	13.44			4.50	13.52		
Share of exports in total sales (%)	W	23.10	26.38	–2.30	0.02	24.61	25.45	–2.70	0.00	24.30	26.11	–2.33	0.02
	S	15.30	20.46			15.99	21.15			16.58	21.61		

Source: own studies based on empirical data

Table 8. Breadth of internationalisation – the export markets of the firms

Market	Industry	2009	2011	2013
Central and Eastern Europe	W	49.3	49.3	49.3
	S	44.6	45.0	44.7
Western Europe	W	52.2	52.2	52.2
	S	30.3	30.0	30.5
USA	W	3.0	4.5	4.5
	S	5.2	5.2	5.8
Asia	W	7.5	11.9	13.4
	S	9.8	10.9	10.9
Africa	W	1.5	1.5	1.5
	S	3.6	3.6	3.8

Source: own study based on empirical data

5. Conclusions

The analysis conducted in the study enables partial conclusions to be drawn on the research question posed. As the literature review indicated (e.g. Antonioli et al., 2011; Berrill, Kearney, 2011; Teece, Pisano, Shuen, 1997; Wu, 2010) the process of internationalisation does affect a company's competitive position and a similar outcome was evident in our sample. However, as the results indicate, the exposure to foreign markets proved to have a twofold dimension.

Firstly, better competitive positions were achieved by companies operating in the industries which according to the synthetic index (based on aggregated data related to the financial standing of firms operating in the analysed industries, Table 3) experienced less negative changes than other industries or more positive changes than other industries. Thus, the results of the authors' study, based on the perception of managers, are in line with the results obtained from hard, statistical data. It is safe to assume that one of the transmission channels for the environmental disturbances was the process of internationalisation. A dependence on imports turned out to be more destructive, possibly since it indicated a company's need for external production factors. Companies that did relatively well, on the other hand, displayed a much greater willingness to export. This partially opposes the findings of Burlita et al. (2011) or Zelek and Maniak (2011) who claimed that foreign activities were ineffective in a time of economic turbulence.

The aim of this paper was to enrich the field of study, although the authors acknowledge that the conducted research does have some limitations. These limitations may constitute a starting point for future studies that will permit a more in-depth analysis of the issues in question. Although the study refers to the largest sector in terms of number (manufacturing), at the same time it neglects all the other industries. Time and resources did not permit a broadening of the scope of analysis, but it is surely worth verifying how performance is related to the degree of internationalisation in other industries. This would permit a fuller overview of the matter.

The limitations of the study suggest that there likely are possibilities to conduct a more in-depth analysis, which would, however, require a much broader range of data. On the other hand, it is also possible to enrich the studies with a cross-country analysis. As research has shown, Poland is not a country that has been severely affected by the unfavourable economic conditions (Dzikowska, Gorynia, Jankowska, 2015). It would be worth observing how this relationship evolved in other countries.

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Wpływ globalnego kryzysu gospodarczego na branże i przedsiębiorstwa w Polsce. Czy internacjonalizacja ma znaczenie?

Streszczenie: W prezentowanym artykule autorzy podejmują próbę odpowiedzi na pytanie, na ile poszczególne branże polskiego przemysłu przetwórczego oraz przedsiębiorstwa reprezentujące te branże doświadczyły negatywnych następstw globalnego kryzysu gospodarczego. Sformułowano propozycję badawczą, z której wynika, że przedsiębiorstwa otwarte na współpracę zagraniczną (zarówno eksport, jak i import) były bardziej narażone na oddziaływanie turbulencji gospodarczych niż firmy skupione na rynku krajowym. Rezultatem przeprowadzonych studiów jest ranking 24 branż polskiego przemysłu przetwórczego, pokazujący, które z nich najbardziej ucierpiały w następstwie globalnego kryzysu gospodarczego. Natomiast wyniki badań pierwotnych, przeprowadzonych metodą wywiadów telefonicznych (CATI) wśród 701 firm aktywnych w branżach ujętych w rankingu, prezentują, jak kształtowała się pozycja konkurencyjna tych firm w zależności od stopnia ich umiędzynarodowienia w okresie globalnego kryzysu gospodarczego. W artykule podjęto próbę przedstawienia oddziaływania globalnego kryzysu gospodarczego zarówno na branże (perspektywa mezoekonomiczna), jak i na pojedyncze firmy (perspektywa mikroekonomiczna).

Słowa kluczowe: internacjonalizacja, kryzys gospodarczy, pozycja konkurencyjna, przedsiębiorstwo, branża, Polska

JEL: F23, F61, L25, M16

Received: 2017-10-02; verified: 2018-01-12. Accepted: 2018-03-12