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MONITORING THE IMPACT OF THE ECONOMIC CRISIS ON INFORMATIZATION STRATEGIES OF POLISH COMPANIES AND INSTITUTIONS IN THE YEARS 2009–2011¹

Abstract: The paper discusses the outcome of a comparative research project from 2009–2011 which aimed at determining how the recent economic crisis influenced informatization strategies in Polish companies and institutions. The obtained results validated a working hypothesis that the economic crisis did affect – to a smaller or greater extent – short- and long-term informatization strategies in the majority of companies or institutions. Despite the fact that the relative importance of the identified strategy modification, the intensity of their visible symptoms or areas of IT applications where they were most noticeable differed from year to year, those variations were minor and concerned some elements of informatization strategies and of IT applications only. Details are included in this paper.

Keywords: economic crisis, comparative surveys, changes of informatization strategies.

1. Introduction

The global financial crisis which has affected Polish economy since the second half of 2008 resulted in the deterioration of the economic situation in the majority of companies. The evidence was provided by current business statistics, economic and social analyses, and by monitoring tendency changes in the economy (see e.g. a diagnosis included in the report [*Polska 2011 – Raport...*]). The implications of the crisis have been observed in the information technology domain as well, with clear signals coming from producers and providers of IT products and services or from their customers. That the situation had grown worse was also acknowledged by nearly all major companies monitoring the IT industry, including DiS, Gartner, Forrester Research, IDG and PMR. According to PMR surveys (see Figure 1), in 2009 not only had the IT market not increased for the first time in recent years, but

¹ Selected parts of this article were published under non-exclusive copyright in *Proceedings of the Federated Conference on Computer Science and Information Systems FedCSIS 2012* (see [Dyczkowski, Dyczkowski 2012]).

also it had shrunk by 9.2% (from PLN 26.9 billion to PLN 24.5 billion), and although 2010 saw a year-on-year increase of 5.8% in the value of the market, the 2008 level has never been reached (with the market being worth 1.0 billion less than in 2008). The forecasts for 2011 were more optimistic with a predicted double-digit growth (10.9%) to PLN 28.7 billion, i.e. 1.8 billion more than in the record year 2008. Nonetheless, it was not certain whether the change in the trend would persist as neither the Polish nor the world economy has overcome the financial and economic crisis.

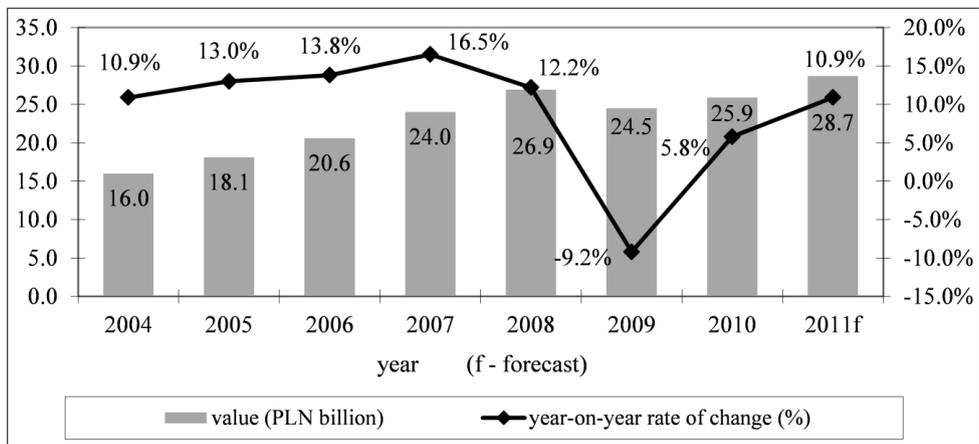


Figure 1. Value and year-on-year rate of change for IT market in Poland according to PMR data and forecasts from August 2011

Source: own elaboration based on [Olszynka 2011, p. 2].

The observed situation confirmed the authors' belief that it was necessary to continue the study initiated in 2009, which investigated the impact of the economic and financial crisis on informatization strategies and IT projects in various companies and institutions operating in Poland. The same conclusion resulted from the presented outcomes of that study at several conferences where they earned marked attention (see e.g. [Dyczkowski 2009, 2010a, 2010b, 2011a, 2011b]).

This paper presents versatile analyses on data covering three consecutive years which enable to assess the impact of the economic crisis and to identify the changes resulting from it in business informatization strategies. The first part of the paper includes assumptions of the research and a methodology thereof. The next section characterizes briefly examined objects and the influence of the crisis on their economic situation. In that context, the following parts are devoted to analyzing the qualitative and quantitative modifications in informatization strategies, their most visible symptoms and their intensity. The paper is concluded with a presentation of the major research results.

2. Assumptions for the study

The subject of the comparative study presented in this paper resulted from the authors' conviction that in order to counteract the prolonged economic crisis more effectively (in the IT area in particular), it is necessary to understand how various business organizations and institutions dealt with the crisis and what decisions related to their IT functions were met. Such knowledge should enable the IT industry to return on track of dynamic growth observed in previous years (see Figure 1) much quicker, which is vital in respect of long-range strategies to develop e-society, e-government and e-economy in Poland (see e.g. [*Strategia innowacyjności...* 2011]).

The study has an interregional reach, and reflects the situation of companies and institutions located mostly in Warsaw (Mazovia) and in Wrocław (Lower Silesia), and in areas adjacent to those two centers. All editions of the study² were conducted in April and May, the first in 2009, the second in 2010 and the third in 2011 – as already mentioned in the introduction. The main reason for selecting data collection periods was that at that time forecasts drawn up at the turn of 2008/2009, 2009/2010 and 2010/2011 were modified, and reflected information on crisis development, figures from financial statements for years 2008, 2009 and 2010 as well as data from closing reports for the first quarters of 2009, 2010 and 2011, respectively. Companies and institutions incorporated recent data into their strategies, including those for the IT area, by either continuing or modifying prior plans.

The overall number of collected – and duly filled in – questionnaires amounted to 139 in 2009, 109 in 2010 and 127 in 2011. All questionnaires formed a repository³ of 375 sets of data, including: 38 quantitative and qualitative characteristics describing how the economic crisis affected IT strategies and what changes in strategies were adopted, 6 descriptive and typological features of the surveyed objects, and 5 others which allowed verifying collected data (including sources of information). The repository contains data on a very diverse group of companies and institutions, which differed in subsequent years. A detailed presentation of that group is, therefore, required.

3. General characteristics of the surveyed objects including influence of the crisis on their economic situation

Before the results of the study are discussed, the examined companies and institutions will be analyzed briefly. Table 1 presents a breakdown of the objects surveyed

² All surveys, which provided data for the comparison, were carried out by students of the post-graduate managerial program "IT Projects Management" at the Faculty of Management of Warsaw University, and by part-time master-level students of Information Technology and Econometrics at the Faculty of Management, Computer Science and Finance of Wrocław University of Economics.

³ The repository is stored and processed in two file formats: primarily as workbooks of Statistica, and secondly as MS Excel files.

in 2009, 2010 and in 2011 by their size, Table 2 by their areas of operations and Table 3 by their informatization level. The tables include: the dominating values in the examined years (cells with digits in bold) and the highest values for each group over the whole research period (cells shaded in grey).⁴ The sizes of companies and institutions were determined in a simplified manner which considered the number of employees only, although the classification criteria for the size of the objects and their activity comply with both national (GUS) and European statistic systems (Eurostat).

Table 1. Structures of the research group by size

Object size (in %)	2009	2010	2011
Small	31.6	33.9	30.7
Medium	24.5	20.2	28.3
Large	43.9	45.9	40.9

Source: own elaboration.

Table 2. Structures of the research group by sector

Sector (in %)	2009	2010	2011
Banking, finance, insurance	7.9	13.8	8.7
Commerce (commodity trade)	15.1	15.6	26.8
Industry	13.7	16.5	10.2
Public administration	10.8	14.7	7.9
Other	53.2	38.5	46.5

Source: own elaboration.

Table 3. Structures of the research group by informatization level

Informatization level ⁵ (in %)	2009	2010	2011
Low (< 45%)	7.2	5.5	6.3
Medium (≥ 60%)	16.5	13.8	12.6
High (≥ 75%)	33.8	31.2	35.4
Very high (≥ 90%)	42.4	49.5	45.7

Source: own elaboration.

⁴ Broader and more detailed information about the research group can be found in [Dyczkowski 2011b, pp. 105–106 and Dyczkowski, Dyczkowski 2012, p. 978].

⁵ The informatization level was determined based on subjective opinions (but with help of the pre-defined grading scale) to what extent IT solutions supported such operational areas as: core business, administration and office work or other processes.

The data presented in Table 3 requires a brief explanation. It can be observed (see groups labeled as “high” or “very high”) that most of the surveyed objects (76.2% in 2009, 80.7% in 2010 and 81.1% in 2011) were characterized by high or very high values of the “informatization level” parameter. This stemmed from the sector profile of the samples, and particularly from the biggest share of ICT companies – where business operations are computerized in general. Linking sector profiles with informatization levels, increases of the latter parameter (i.e. an upgrade in an informatization class) can be observed in: public administration (by 4.5%), other companies (by 4.0%), banking, finance and insurance (by 2.2%), whereas a slight decrease was detected in the trade sector (by 1.8%).

Table 4 presents a breakdown of the examined objects based on the impact which the crisis had on their economic standing. The assessments were based on a five-grade scale.

Table 4. Structures of the surveyed objects by impact of the crisis on their economic situation

Impact of the crisis on economic situation (in %)	2009	2010	2011
It is much worse	6.5	11.0	3.9
It is slightly worse	51.8	53.2	49.6
Nothing has changed	32.4	23.8	32.3
It is slightly better	9.3	10.1	12.6
It is much better	0.0	1.8	1.6

Source: own elaboration.

Considering the information presented in Table 4, one can observe (see cells with bold digits) that the economic situation of the examined objects was in most cases referred to as “slightly worse” (51.8% of all answers in 2009, 53.2% in 2010 and 49.6% in 2011). Nevertheless, a significant share (32.4% in 2009, 23.8% in 2010 and 32.3% in 2011) of companies and institutions declared a stable economic position. It should be also mentioned that a slight increase (of 4.8%) of neutral answers (“nothing has changed”) together with positive ones (“it is slightly...” and “it is much better”) was detected over the whole research span. That included, however, a decline in those answers in 2010 (by 6% to the prior year) and a significant growth in 2011 comparing to 2010 (a rise of 10.8%). At the same time, the share of negative responses (“it is much...” and “it is slightly worse”) decreased considerably. The share of such responses dropped by 10.7% in 2011 (including a 7.1% decrease in the most negative answers, i.e. “it is much worse”). All the abovementioned observations entitle us to formulate a statement that the influence of the economic crises on the current situation of the examined objects was reduced.

To conclude our analysis of the information presented in Table 4, it should be added that the original research data enabled us to detect a shift from negative to positive economic expectations in certain object groups, including: small companies

(+8.2%), very large ones (+6.8%), public administration (+8.4%) and industry (+6.3%). A negative change was observed in the trade sector (−3.4%).

4. Influence of the economic crisis on informatization strategies and IT projects

The next two parts of the paper will analyze the influence of the crisis on informatization strategies and IT projects, keeping in the following sequence. In the beginning, it will be examined whether – and, if yes, then to what extent – informatization strategies were modified: firstly, in objects grouped according to informatization levels (see Table 5), secondly, in objects of certain sizes (see Table 6) and thirdly, in particular industries (see Table 7). Subsequently, it will be analyzed in what ways changes in the economic situation of companies or institutions influenced their informatization strategies and ongoing IT projects (see Table 8). The following tables present: the importance of clusters in the whole sample, dominating absolute values (cells with digits in bold), the highest absolute values in each group of examined objects (cells shaded in grey) and substantial changes (over $\geq 5\%$) to previous years (underlined values in Tables 6–8).

Table 5. Relation between informatization level and scope of changes in IT strategies

Informatization level	Average for years 2009–2011 (in % of the research group)		
	No change	Slight change	Radical change
Low (< 45%)	1.4	2.7	2.2
Medium ($\geq 60\%$)	1.4	6.9	6.0
High ($\geq 75\%$)	6.0	12.6	14.9
Very high ($\geq 90\%$)	7.4	17.4	21.0

Source: own elaboration.

Table 6. Modifications of IT strategies in objects of various sizes

Objects by size	Change to preceding year (in %)			
	Slight		Radical	
	2010/2009	2011/2010	2010/2009	2011/2010
Micro	−1.9	−1.4	−7.0	−0.9
Small	<u>+7.6</u>	<u>−7.3</u>	+0.2	−0.9
Medium	<u>−7.4</u>	<u>+7.4</u>	−2.2	+1.6
Large	+4.4	<u>+5.1</u>	+1.3	−1.2
Very large	<u>+8.0</u>	<u>−11.5</u>	−0.1	−1.2

Source: own elaboration.

Table 7. Modifications of IT strategies in objects from various sectors

Objects by sector	Change to preceding year (in %)			
	Slight		Radical	
	2010/2009	2011/2010	2010/2009	2011/2010
Banking, finance, insurance	+9.4	-7.5	-2.2	+1.6
Commerce (commodity trade)	+0.5	+6.6	-1.4	0.0
Industry	+5.7	-4.2	0.0	0.0
Public administration	+2.7	-6.0	+0.2	-0.9
Other	-7.7	+3.3	+2.8	-3.3

Source: own elaboration.

Table 8. Crisis-related changes in the economic situation of the surveyed objects and their influence on informatization strategies and projects – the comparative analysis

Impact of the crisis on economic situation of an object	Influence of the economic crisis on IT strategies and projects (percentage of the sample)								
	No change			Slight change			Radical change		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
It is much worse	0.72	0.00	0.00	1.44	<u>9.17</u>	<u>3.94</u>	4.32	1.83	0.00
It is slightly worse	10.07	10.09	11.81	38.85	40.37	34.65	2.88	2.75	3.15
Nothing has changed	20.86	13.76	18.90	10.79	9.17	13.39	0.72	0.92	0.00
It is slightly better	5.04	0.92	4.72	4.32	7.34	6.30	0.00	1.83	1.57
It is much better	0.00	1.83	1.57	0.00	0.00	0.00	0.00	0.00	0.00

Source: own elaboration.

The data presented in Tables 5–8 require a short comment. First of all, the study revealed that the impact of the crisis on informatization strategies and IT projects was more visible in objects characterized by a higher informatization level. The correlation between the informatization level and the scope of modifications in IT strategies and projects was indicated with an arrow (see Table 5).

Secondly, the data collected showed that the influence of the crisis on informatization strategies and IT projects was only partially related to object sizes and sectors where they operated. The intensity and direction of the observed changes differed between sectors and groups of answers (see the underlined figures in Tables 6 and 7, depicting substantial changes from year to year). One can notice, for example, a stabilizing situation in the case of micro-companies over the whole research span, with a decreasing number of objects which had to modify their IT strategies or projects in either a slight or radical way. The effects of recovery from the economic crisis were also visible among the largest objects, with a 12.7% reduction in “slight” or “severe” changes introduced in the IT domain between 2010 and 2011. What was less certain was the situation in the case of small and medium companies, where the

subsequent years demonstrated opposite tendencies respecting the analyzed issue. Finally, a constant need to slightly modify strategies was detected in large objects. In terms of areas of business where the examined companies or institutions were active, after a difficult year of 2010, where all sectors except for “other companies” noted an increasing pressure to modify slightly their IT strategies and projects, the year 2011 showed relief in such sectors as: banking, finance, insurance, industry and public administration. Among objects qualified to the category “other”, a shift from “radical” to “slight” changes was observed in the last year of the research.

Thirdly – as expected – the scopes of adjustments in informatization strategies and in IT projects were correlated with a magnitude of changes in the economic situation of an object (see figures in bold in Table 8). Moreover, in particular the year 2011 witnessed the positive influence of the economic standing on the stability of IT strategies and projects being implemented, which was manifested in three ways. Firstly, among objects where the economic situation became slightly better more entities were not forced to modify their strategy at all (an increase of 3.8%), and the share was lower for those which had to do it (a decrease of 1.3% in total). Regarding companies where the economic situation was slightly or much worse, the share of those which decided to modify their strategies went down by 5.7 and 5.2%, respectively. Finally, financial stability resulted in a growing share of companies and institutions which did not modify their IT strategies (an increase of 5.1% from 2010 to 2011).

The following parts of the paper will identify and depict the most important symptoms of changes in informatization strategies in reference both to the whole analyzed group and to those objects where IT strategies were modified.

5. Symptoms of changes in informatization strategies and in IT projects

The data collected in the three editions of the research enabled us also to detect and structure major symptoms of changes in informatization strategies and in IT projects, which resulted from the crisis. It should be added that those symptoms were identified by the surveyed objects with the help of a predefined list (see Tables 9 and 10). The list was open, nevertheless, only 6 objects in both 2009 and 2010, and 11 in 2011 presented other reasons than those defined. By compiling the list of symptoms, the authors considered various studies (see e.g. [Jaślan 2009; Olszynka 2009a; *Rynek IT boleśnie...* 2009; Waszczuk 2009a, 2009b; Wolak 2009]). The examined companies and institutions were asked to select all relevant symptoms.

The following tables present structures of responses in the whole analyzed group (Table 9, columns 2, 3 and 4) and for those objects only where changes in informatization strategies – either “slight” or “radical” – occurred (Table 9, columns 5, 6 and 7). Dominating values were marked – like in the previous tables – in bold or using cell shading, and substantial changes ($\geq 5\%$) between the results from 2009, 2010 and 2011 were underlined.

Table 9. The structure of identified symptoms of changes in informatization strategies for the entire group of objects

Identified symptoms of changes in informatization strategies	Structures of symptoms (percentage of the sample)					
	All objects			Objects which modified their IT strategies		
	2009	2010	2011	2009	2010	2011
A budget of an IT department was reduced	25.90	28.44	28.35	38.64	38.75	<u>45.00</u>
Spending related to IT investments decreased	30.94	30.28	<u>22.05</u>	48.86	<u>41.25</u>	<u>35.00</u>
New projects were abandoned	13.67	<u>6.42</u>	7.87	21.59	<u>8.75</u>	12.50
Ongoing projects were stopped	7.19	<u>7.34</u>	<u>1.57</u>	11.36	10.00	<u>2.50</u>
A scope of projects was reduced	13.67	13.76	15.75	21.59	18.75	<u>25.00</u>
IT investments were postponed	20.86	<u>38.53</u>	<u>24.41</u>	32.95	<u>52.50</u>	<u>38.75</u>
IT services outsourcing was intensified	2.88	4.59	9.45	3.41	6.25	<u>15.00</u>
IT personnel were made redundant	15.83	16.51	<u>11.02</u>	23.86	22.50	<u>17.50</u>
IT seminars and training were cut	33.09	33.03	31.50	51.14	<u>45.00</u>	<u>50.00</u>
IT was financed with external sources	1.44	3.67	3.94	2.27	3.75	6.25
IT costs were streamlined (using TCO)	15.83	<u>22.94</u>	<u>11.81</u>	25.00	<u>31.25</u>	<u>18.75</u>
Other, namely...	4.32	5.50	<u>8.66</u>	5.68	6.25	<u>11.25</u>

Source: own elaboration.

Referring to data depicted in Table 9 (columns 2, 3 and 4), one should notice that the surveyed objects declared the following symptoms of informatization strategy changes the most frequently (they appeared in over 20% of questionnaires): reduced number of IT seminars and training (33.09% of questionnaires in 2009, 33.03% in 2010 and 31.5% in 2011), decreasing spending on IT investments (30.94% in 2009, 30.28% in 2010 and 22.05% in 2011), reduced budgets of IT departments (25.90% in 2009, 28.44% in 2010 and 28.35% in 2011), postponed IT investments (20.86% in 2009, 38.63% in 2010 and 24.41% in 2011) and IT cost streamlining initiatives using TCO (22.94%-level, which exceeded the 20%-threshold, was observed in 2010 only).

When the data are analyzed, and values from subsequent years compared, several facts become visible. Firstly, the most remarkable increase in indications (17.67%) refers to the situation when “IT investments were postponed” – which was also the most frequently selected answer by the surveyed companies in 2010. A considerable decrease in such answers (14.12%) in 2011 should be perceived as a positive symptom, since a suspension of IT investments might lead to a technological

slowdown in the long run. A similar situation was observed in relation to the answer: “new projects were abandoned”, where a substantial decline (7.25%) between 2009 and 2010 was identified. This fact proves that a negative tendency of withdrawing from new investments, reported in numerous studies (see e.g. [BCS Polska... 2010; Jadczyk 2010; Olszynka 2010, Prusek 2010; *Rynek ICT...* 2010; *Rynek ICT...* 2011; Waszczuk 2009b]), was reversed both in 2010 and in 2011.

Secondly, it should be pointed out that an increase in the number of objects (7.11% in 2010) declaring that their “IT costs were streamlined (using TCO)” turned out not to be a permanent trend, as the foregoing number dropped significantly in 2011 (by as much as 11.13%). This observation was particularly disappointing to the authors, one of whom has been promoting the efficiency of the IT application (including the use of the TCO concept) for many years, and the other one has dealt with controlling methods used in the operational activities of businesses and institutions. The data obtained did not prove a growing awareness of TCO methodology among Polish managers and a willingness to apply the aforementioned method in practice.

Thirdly, the low significance of IT services being outsourced (only 2.88% in 2009, 4.59% in 2010 and 9.45% in 2011 – which is a better result but still much lower than the average values for technologically advanced markets) along with limited external financing (1.44% in 2009, 3.67% in 2010 and 3.94% in 2011) is another unpleasant surprise. In particular, the latter figure is disappointing, considering the significant funds for fostering innovations (including ICT) available within the EU and the nationwide frameworks for financial support. It should be considered, however, that the interviewees might not have been aware of all the financial sources used to implement particular projects or that, in certain cases, external support for innovative undertakings was so “obvious” that it was not mentioned in the research form at all.

Finally, Table 10 presents the ranking of importance for all the identified positive and negative symptoms of modifications in informatization strategies and in IT projects for the whole analyzed period and changes in their importance between 2009 and 2011.

The data collected in the study enabled us also to identify IT domains affected by modifications in informatization strategies and to characterize those changes in quantitative and monetary ways.⁶ Figures 2–4 present changes in the application of IT systems by their type ranked according to new implementations within the 2009–2011 period.

For the whole period, substantial decreases in the value and number of projects were observed in the area of HR (human resources applications; marked with a dark grey frame in Figures 2–4). On the other hand, considerable increases were noticed in the group of analytical systems of Business Intelligence (BI) class (marked with a light grey frame in Figures 2–4).

⁶ Broader and more detailed information about the changes in applications of IT systems is included in [Dyczkowski 2011b, pp. 113–115 and Dyczkowski, Dyczkowski 2012, pp. 983–984].

Table 10. Positive and negative symptoms and trends of changes in informatization strategies and in IT projects

Rank (for the whole period)	Symptom	Influence on IT	Change in importance 2011/2009	Meaning of change 2011/2009
1	IT seminars and trainings were cut	negative	-1.6%	for better
2	IT investments were postponed	negative	+3.6%	for worse
3	A budget of an IT department was reduced	negative	+2.5%	for worse
4	Spending related to IT investments decreased	negative	-8.9%	for better
5	IT costs were streamlined (using TCO)	positive	-4.0%	for worse
6	IT personnel were made redundant	negative	-4.8%	for better
7	The scope of projects was reduced	negative	+2.1%	for worse
8	New projects were abandoned	negative	-5.8%	for better
9	Ongoing projects were stopped	negative	-5.6%	for better
10	Other	negative	+4.3%	for worse
11	IT services outsourcing was intensified	positive	+6.6%	for better
12	IT was financed with external sources	positive	+2.5%	for better

Source: own elaboration.

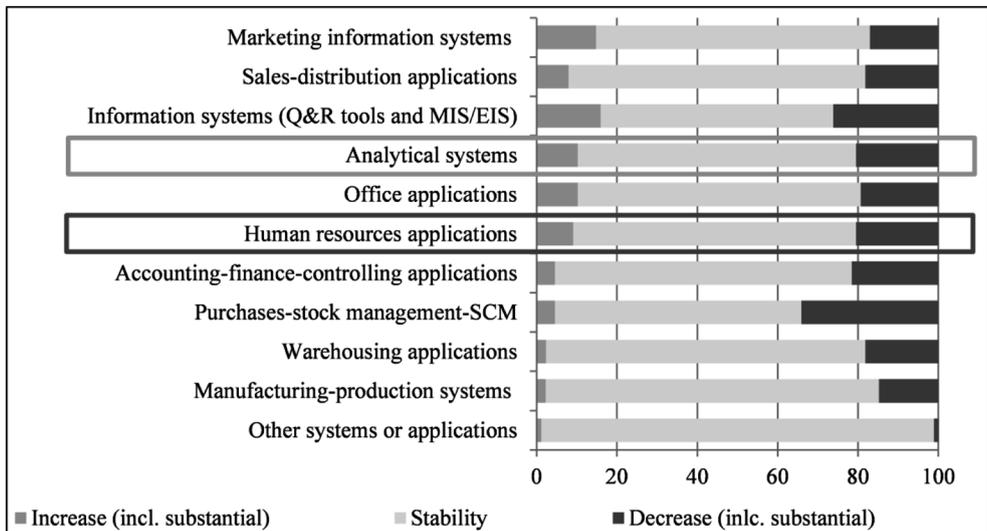


Figure 2. Changes in application of IT systems by their type in 2009 (in %)

Source: own elaboration.

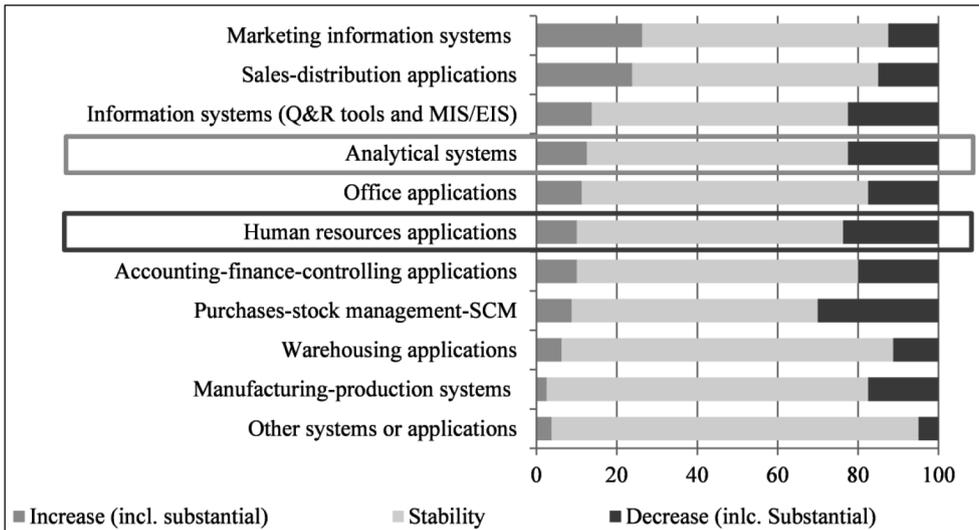


Figure 3. Changes in application of IT systems by their type in 2010 (in %)

Source: own elaboration.

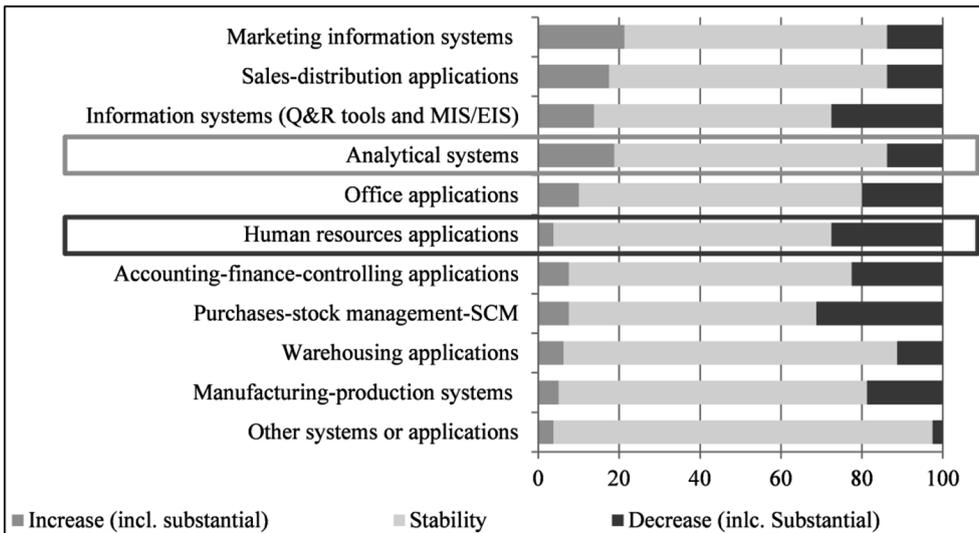


Figure 4. Changes in application of IT systems by their type in 2011 (in %)

Source: own elaboration.

6. Final conclusions

The implications resulting from the data obtained in the comparative surveys carried out in April and May 2009, 2010 and 2011, with a focus on the impact of the economic crisis on informatization strategies and IT projects, entitled us to formulate the following conclusions.

Firstly, the results supported the working hypothesis that the economic crises affected, to a smaller or greater extent, the long- and short-term informatization strategies in most of the examined objects. The observed modifications in IT strategies (63.31% of all surveyed objects in 2009, 73.39% in 2010 and 62.99% in 2011) were the most evident indicator of that situation. In the majority of cases the adjustments had a limited scope, though. The examined objects which declared modifications in their informatization strategies chose the answer: “there was a slight change in the informatization strategy” in a 87.50% share in 2009, in 90.00% in 2010 and in 92.50% in 2011.

Secondly, the observed frequency and magnitude of changes in IT strategies were – as expected – correlated with informatization levels (see Table 5). Moreover, during the whole research period the interviewers were consistent while pointing out the most important symptoms for modifying IT strategies and projects (see Table 9). The intensity of the observed qualitative and quantitative effects of modifying IT strategies were also considered similar in 2009–2011 (see Table 10).

Thirdly, regarding IT areas which were affected by changes in informatization strategies, a decrease in “negative” and an increase in “positive” indications were also observed, but to a smaller extent (see Figures 2–4). The most remarkable growth – in the authors’ opinion – was linked to the higher number of responses suggesting intensified investments in analytical systems of Business Intelligence class in 2011. As already pointed out, that was the vital finding since it concerned the most technologically and functionally advanced solutions, which do not merely address issues related to obligatory reporting, but support analytical and decision-making processes, and thus provide managers with business knowledge which is indispensable to enhance operational effectiveness and efficiency. On the one hand, the declared increase in investments in analytical systems of Business Intelligence class – which should be treated as long-term projects whose economic effectiveness may be recognized after several years – suggests that companies incorporate positive expectations towards economic tendencies into their business forecasts. On the other hand, the observed interest in BI indicates managers’ growing trust in those solutions and in their economic efficiency.

The authors believe that by monitoring the behavior of companies and institutions and their responses to the economic crisis in the IT domain, and by scrutinizing changes in this respect over the three-year period, the following two objectives were achieved. On the one hand, the findings presented in other reports and analyses were confirmed and supplemented, and on the other – due to new pieces of evidence

gained – the negative consequences of the crisis in the IT domain may be effectively counterbalanced. All these should, at least indirectly, lead to achieve goals of long-range strategies for developing e-society and e-commerce in Poland, both more effectively and much quicker.

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MONITOROWANIE WPLYWU KRYZYSU GOSPODARCZEGO NA STRATEGIE INFORMATYZACYJNE POLSKICH PRZEDSIĘBIORSTW I INSTYTUCJI W LATACH 2009–2011

Streszczenie: Artykuł przedstawia wyniki porównawczych badań ankietowych przeprowadzonych w latach 2009–2011, których celem było uzyskanie wiedzy na temat wpływu obecnego kryzysu gospodarczego na strategię informatyzacji polskich przedsiębiorstw i instytucji. Uzyskane wyniki potwierdziły roboczą hipotezę, że kryzys gospodarczy wpłynął – w mniejszym lub większym stopniu – na długo- i krótkookresowe strategię informatyzacji większości zbadanych obiektów. Względny udział zidentyfikowanych zmian, intensywność ich dostrzegalnych przejawów oraz obszary zastosowań IT, w których te zmiany wystąpiły, różniły się wprawdzie w kolejnych analizowanych latach, ale wahania te były nieznaczne i dotyczyły jedynie wybranych elementów strategii informatyzacji oraz zastosowań IT. Szczegółowe dane na ten temat są zawarte w niniejszym artykule.

Słowa kluczowe: kryzys gospodarczy, ankietowe badania porównawcze, zmiany strategii informatyzacji.