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The impact of business environment institutions on the innovation of Polish small and medium-sized service enterprises

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Abstract: This article addresses three fundamental issues. The first issue is Polish small and medium-sized service enterprises, the second - Business Environment Institutions, and the third one - the impact of these institutions on the innovation of the entities in question. The article presents part of the outcome of the research carried out on a group of over two hundred and sixty small and medium-sized service enterprises. The focus of the analysis made was on the intensity of cooperation between these entities and business environment institutions within the area of their innovativeness. The research objective of this article was to assess the impact of business environment institutions on the innovation of Polish small and medium-sized service enterprises. Prior to the commencement of the research we formulated the following research hypothesis - universities are institutions that have the most positive impact on the innovation of micro, small and medium-sized service enterprises. The research questionnaire technique was applied in the survey. The results obtained indicated that the level of cooperation between Polish small and medium-sized enterprises operating in the BEI services sector is very low. This cooperation was found to be usually sporadic or only periodic. Most of the institutions have no influence on the innovativeness of the enterprises surveyed. Only cooperation with entities representing the area of science, research and development transpires to have a significant impact on the level of innovativeness among the respondents.

Keywords: small and medium-sized enterprises, services, business environment institutions, innovativeness

JEL codes: L53, L26

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1. Introduction

Nowadays, the small and medium-sized enterprises (SMEs) sector plays an extremely important role in the world's economies. This is due to the huge number of newly-created jobs or the significant share of this sector in the gross domestic product. In 2014, almost 4 million small and medium-sized enterprises were registered in Poland, and their share in GDP was approximately 48% (Tarnawa and Zadura-Lichota 2015: 15). The level of employment in this sector cannot be underestimated. In Poland, it has been maintained on the level of approximately 69% since 2003 and is even slightly higher than the EU average. (Tarnawa and Zadura-Lichota 2014: 28). Although this sector is the driving force of the Polish economy, it certainly does not affect significantly the level of its innovativeness. Activity in innovative undertakings of Polish enterprises is the domain of large entities, which is usually conditioned by their greater economic potential. The percentage of large companies conducting innovative activity ranges from 63 to 65% (Grego-Planer 2016: 69-71). Against this background, the SMEs sector looks much worse the percentage of innovative small businesses in Poland is 17.4%, which ranks them last in the European Union. As concerns Polish medium-sized entities, 35.8% of them are currently conducting innovative activities, which also gives an unsatisfactory second-last result among EU members (Zadura-Lichota 2015: 14-15).

This article, however, addresses the issues of innovation of a particular group of companies, that is small and medium-sized service entities. As pointed out by W. Glabiszewski (2016: 65), services in the contemporary world are of fundamental importance. Their dynamic development, both quantitative and qualitative, shows a stable trend and cannot be treated as a sphere established to support production processes. The level of employment in the services sector in Western Europe and the United States has already reached 80% of all employees, and the share of this sector in the economy of these countries exceeds significantly 50% of GDP (Tidd and Bessant, 2011: 580). In Poland, the situation has also changed significantly and although these results are not comparable with the western ones, the share of the SMEs services sector in the gross value added structure amounts to 30% on average. (Tarnawa and Zadura-Lichota 2014: 15).

As the generation of wealth in industrialized countries shifts from production to service activities, there is obviously a growing multi-faceted interest in services. However, they constitute, as stated by J.P. Flipo (2001: 47), an area that is still too rarely considered by

specialists and scientists in the field of management. In particular, the non-material nature of services leads to serious consequences for companies that provide them, which poses considerable difficulties and challenges, also in the context of innovative activities. Various types of Business Environment Institutions that are intended to provide support to entrepreneurs in overcoming difficulties related to the implementation of innovations should, by their definition, be helpful in this respect. The empirical studies carried out by the authors on a sample of over two hundred and sixty small and medium-sized enterprises operating in the services sector were intended to indicate whether they really benefit from the support of these institutions. How intense is this cooperation and does it happen at all? Do Business Environment Institutions help them in implementing innovations? The research objective of this article is to assess the impact of Business Environment Institutions on the innovation of Polish small and medium-sized service enterprises.

2. Business environment institutions and their role in supporting the innovativeness of enterprises

The basic division of support instruments addressed to small and medium-sized enterprises categorises them into direct and indirect ones. The group of indirect instruments includes those related to shaping a friendly environment for business development, e.g. reduction of bureaucracy, development of road infrastructure, etc. This makes, therefore, a general kind of support. The second group of instruments are those that engage financial resources, that is all kinds of subsidies addressed to an enterprise that meets specific criteria. Direct support also includes free of charge consultancy offered to entrepreneurs (Filipiak and Ruszała, 2009: 62).

All kinds of support instruments are offered by the entire range of Business Environment Institutions (BEI). According to R. Lisowska (2013: 192), these institutions include centres supporting entrepreneurship, organizations of entrepreneurs, service companies and financial institutions. Matusiak (2010), in turn, divides BEI into three other groups: entrepreneurial centres, innovation centres, and shadow banks. Yet another classification was provided by J. Dominiak (2013: 48-49) who distinguished the following:

- institutional equipment including agencies, foundations and associations working for regional development and economic organizations;
- business services (commercial companies providing services for business);

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• innovative environment - the sphere of research and development activity and institutions responsible for diffusion and transfer of new technologies (centres of innovation and entrepreneurship).

Regardless of the applied classification of BEI, what matters - in fact - is the support that is offered to entrepreneurs by these institutions. Most frequently, it concerns the activation of academic entrepreneurship, improvement of company management, information and advisory activities, establishment of contacts with foreign contractors, improvement of competitiveness and technology transfer, and rendering pro-innovation services (Lisowska 2014: 14). In the era of knowledge-based economy, this is the last element of support that seems to be of the greatest importance for the development of an enterprise. Innovation is perceived as a basic element of building the company's competitiveness. Therefore, it requires enterprises to implement a whole range of activities aimed at continuous learning and modifying market offers (Sudolska 2010: 339). Authors who adopt a very broad approach to innovations treat them as any changes taking place in various spheres of the company's operations, starting from modifications in the product or process, and ending with new forms of distribution or management concepts. (See, for example, Haffer 1998: 26-27; Porter 1990: 45, Janasz 2003: 49). Innovation is the development or improvement of old and new products and services, markets, administration techniques and technology applied to perform organizational functions, as well as changes in strategy, organization and dealing with competition (Liczmańska-Kopcewicz 2017: 4). Therefore, innovations cannot be looked at as only the very launch of a new product on the market or the application of new technology. Innovations cover, or at least should cover, every sphere of the company's activity, regardless of the sector or industry in which it operates. In such a turbulent and unstable environment, the survival of an organization and its competitive advantage can only be achieved if the pace of its operation matches the dynamics of the development of this environment (Cyfert 2013: 25-34). Therefore, this enterprise, which is capable of reacting quicker to changes occurring in the external environment, has a better chance of success.

In Poland, support for the service provision system developing the innovation of the SMEs sector is based on Innovation and Entrepreneurship Centres (IEC). Their goal is to meet the needs of entrepreneurs connected primarily with the development of innovative entrepreneurship, promotion of experimentation, technology transfer and commercialization of knowledge and improvement of competitiveness. These institutions supporting innovation are divided into

entrepreneurship centres, innovation centres and non-bank financial institutions (Bąkowski and Mażewska 2014: 8). According to the available data from 2014, there were 176 institutions in Poland that ran innovation centres and business incubators that operated within 137 parent institutions. The structure of these centres by kind is the following (Bąkowski and Mażewska 2014: 13):

- 42 technology parks;
- 23 technology incubators;
- 24 academic business incubators;
- 46 business incubators;
- 41 technology transfer centres.

The vast majority of these institutions offer entrepreneurs assistance in the development of grant applications, cooperation with local loan funds, business angels or risk funds, technology audits, consultations of innovative ideas, development of plans concerning technology implementation, etc. It is also important for companies that they are provided with a possibility to rent some space within areas belonging to innovation centres, especially to technology parks, on favourable conditions. In addition to the aforementioned support, these institutions promoting innovation offered a whole range of consultancy services addressed directly to enterprises. According to the State Agency for Enterprise Development, in 2013 alone over 4,250 consultancy services were implemented in the centres supporting the innovation of the SMEs sector, including over 770 pro-innovative services.

The above information indicates that Business Environment Institutions are active entities supporting the development of small and medium-sized enterprises. However, this raises some questions - do BEI attempt to support the whole sector or only selected parts of it? Is even part of this support addressed to the service sector? How do small and medium-sized service enterprises assess this support?

3. Cooperation of small and medium-sized service enterprises with Business Environment Institutions – the outcome of the empirical research conducted

The empirical study was conducted as part of a research project entitled 'Innovation of small and medium-sized enterprises', carried out at the Department of Enterprise Management at the Faculty of Economic Sciences and Management of Nicolaus Copernicus University in Toruń.

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The survey that was conducted from October to December 2017, covering 261 entities located in all the regions of Poland. The measurement method was a direct survey, and the measurement instrument was a questionnaire containing questions about the innovation activity of the company.

Micro-enterprises, i.e. those employing up to nine employees, constituted 31% of the surveyed entities, almost 38% were small enterprises with the employment level up to 49 people, and 31% were medium-sized enterprises, i.e. ones employing up to 249 persons. Most often, the respondent was a sole trader (42%) or a limited liability company (34%). Other enterprises were partnerships, joint-stock or represented other types of companies (usually limited partnerships). Detailed data is presented in Table 1.

Table 1. Characteristics of the Polish small and medium-sized enterprises surveyed

| Criterion | Number (N=261) | Share in % |
|-----------------------------|----------------|------------|
| The company size: | | |
| - micro (0-9) | 81 | 31.0 |
| - small (10-49) | 99 | 37.9 |
| - medium-sized (50-249) | 81 | 31.0 |
| Legal form: | | |
| - sole trader | 110 | 42.1 |
| - partnership | 36 | 13.8 |
| - limited liability company | 89 | 34.1 |
| - public limited company | 9 | 3.4 |
| - other | 17 | 6.5 |

Source: own study based on the obtained research results

The activity of the entities surveyed focused mainly on rendering services in the areas including catering activities, activities related to telecommunications and information, real estate market services, transport, finances, law, accounting, advertising, and construction. It is noteworthy that the answers were given by the top management, most often by persons being the owner of the company or a person being a member of the company's board.

The surveyed enterprises were asked about the nature of cooperation between their company and individual business environment institutions. Respondents provided their answers using a scale ranging from 0 to 4, where 0 meant no cooperation at all, 1 - sporadic cooperation, 2 - periodic cooperation, 3 - permanent informal cooperation, and 4 - permanent formalized cooperation. The findings, unfortunately, are not optimistic. Detailed information is presented in Table 2.

Table 2. Type of cooperation between Polish small and medium-sized enterprises and business environment institutions

| env | 1.44 | D÷ | | | | | |
|--|--|--------|---------|------------|------|----|----|
| Business environment institutions | Type of cooperation (% of indications) | | | | | M* | D* |
| | 0 | 1 | 2 | 3 | 4 | | |
| Governmental institutions ¹ | | 1 24 0 | | 0.0 | | | |
| Legislative institutions | 65.5 | 31.0 | 3.4 | 0.0 | 0.0 | 0 | 0 |
| Public administration offices | 37.9 | 37.9 | 17.2 | 0.0 | 6.9 | 1 | 0 |
| Courts | 57.9 | 13.8 | 13.8 | 6.9 | 6.9 | 0 | 0 |
| Tax offices | 3.4 | 16.9 | 24.9 | 21.8 | 33.0 | 3 | 4 |
| Social Insurance Institution (ZUS) | 51.7 | 17.2 | 10.3 | 0.0 | 20.7 | 0 | 0 |
| Patent Office | 79.3 | 6.9 | 10.3 | 0.0 | 3.4 | 0 | 0 |
| Customs offices | 68.6 | 3.4 | 13.8 | 3.4 | 10.3 | 0 | 0 |
| Competition and consumer protection | | | | | | | |
| offices | 69.0 | 17.2 | 13.8 | 0.0 | 0.0 | 0 | 0 |
| Certifying institutions | 69.0 | 20.7 | 3.4 | 0.0 | 6.9 | 0 | 0 |
| Governmental institutions - average | 55.8 | 18.3 | 12.3 | 3.6 | 9.8 | | |
| Units of the sphere of science, research a | nd dev | elopme | nt (R&I | D) | | | |
| Higher education institutions | 46.0 | 23.0 | 16.1 | 10.3 | 4.6 | 1 | 0 |
| Institutes of the Polish Academy of | | | | | | | |
| Sciences | 96.6 | 3.4 | 0.0 | 0.0 | 0.0 | 0 | 0 |
| R&D units | 62.8 | 30.3 | 3.4 | 3.4 | 0.0 | 0 | 0 |
| Development units | 86.2 | 10.3 | 3.4 | 0.0 | 0.0 | 0 | 0 |
| Research and development departments | | | | | | | |
| in large enterprises | 69.0 | 26.8 | 4.2 | 0.0 | 0.0 | 0 | 0 |
| Consulting companies | 48.7 | 30.3 | 17.6 | 0.0 | 3.4 | 1 | 0 |
| Scientific foundations | 78.5 | 14.6 | 6.9 | 0.0 | 0.0 | 0 | 0 |
| Internet portals | 22.6 | 32.6 | 28.4 | 13.0 | 3.4 | 1 | 1 |
| Units of the sphere of science, research | 63.8 | 21.4 | 10.0 | 3.4 | 1.4 | | |
| and development (R&D) - average | | | | | | | |
| Business support institutions | | | | | | | |
| Local government administration offices | 16.1 | 52.9 | 13.0 | 17.6 | 0.0 | 1 | 1 |
| Regional and local development agencies | 62.1 | 28.4 | 9.2 | 0.0 | 0.0 | 0 | 0 |
| Chambers of commerce | 69.3 | 17.2 | 12.6 | 0.0 | 0.0 | 0 | 0 |
| Guilds | 67.0 | 23.8 | 1.9 | 0.0 | 6.9 | 0 | 0 |
| Training and consulting centres | 40.2 | 42.9 | 8.4 | 4.6 | 3.4 | 1 | 1 |
| Patent information points | 73.6 | 24.9 | 0.8 | 0.0 | 0.0 | 0 | 0 |
| Incubators of entrepreneurship | 55.9 | 36.8 | 6.9 | 0.0 | 0.0 | 0 | 0 |
| European information centres | 69.3 | 29.9 | 0.4 | 0.0 | 0.0 | 0 | 0 |
| Technology transfer centres | 69.3 | 26.8 | 3.4 | 0.0 | 0.0 | 0 | 0 |
| Technology parks | 79.7 | 9.6 | 3.4 | 6.9 | 0.0 | 0 | 0 |
| Employers' organizations | 47.9 | 38.3 | 13.4 | 0.0 | 0.0 | 1 | 0 |

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¹ Governmental institutions are generally not treated as Business Environment Institutions. However, they appear in numerous studies concerning, for example, Strategy for Provinces Development, in which they are treated as business support institutions. Cooperation with them can be important when implementing innovations by entrepreneurs. Therefore, the authors decided to present in the article also the level of cooperation of respondents with these institutions.

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| Economic associations | 59.8 | 27.2 | 12.6 | 0.0 | 0.0 | 0 | 0 |
|--|------|------|------|------|------|---|---|
| Economic foundations | 86.2 | 9.6 | 3.8 | 0.0 | 0.0 | 0 | 0 |
| Professional associations | 75.9 | 16.5 | 7.3 | 0.0 | 0.0 | 0 | 0 |
| Economic information centres | 79.3 | 10.0 | 6.9 | 3.4 | 0.0 | 0 | 0 |
| Regional trade fairs | 32.2 | 44.4 | 19.5 | 3.4 | 0.0 | 1 | 1 |
| Local media (TV, radio, press) | 30.3 | 54.4 | 14.9 | 0.0 | 0.0 | 1 | 1 |
| Venture capital funds | 93.5 | 5.0 | 1.1 | 0.0 | 0.0 | 0 | 0 |
| Insurance institutions | 32.2 | 36.8 | 13.8 | 0.0 | 17.2 | 1 | 1 |
| Credit and leasing institutions | 55.2 | 17.2 | 10.3 | 3.4 | 13.8 | 0 | 0 |
| Banks | 19.2 | 16.1 | 17.6 | 12.6 | 34.5 | 2 | 4 |
| Loan and guarantee funds | 74.3 | 8.0 | 5.0 | 1.9 | 10.3 | 0 | 0 |
| Regional funding institutions (RIF) | 85.1 | 8.0 | 1.5 | 1.5 | 3.4 | 0 | 0 |
| Investment funds | 79.3 | 8.0 | 8.8 | 0 | 3.4 | 0 | 0 |
| Business support institutions - average | 60.5 | 24.7 | 8.2 | 2.3 | 3.9 | | |
| | | | | | | | |

^{*}D – Dominant *M – Median

Source: own study based on the research results obtained

The results contained in Table 2 clearly show that the cooperation of the examined small and medium-sized enterprises with business environment institutions is usually sporadic or does not occur at all. Over 55% of them declared lack of cooperation with government institutions, 63% lack of cooperation with units of the sphere of science, research and development, and 60% lack of cooperation with institutions engaged in direct business support. Occasional cooperation is conducted by the surveyed enterprises most often with state administration offices, higher education institutions, consulting companies, Internet portals, local government administration offices, training and consulting centres, employers' organizations, regional trade fairs, local media, and insurance institutions. The median of all the above answers is 1. On average, only every tenth company indicated some periodic cooperation with any business support institution. Ongoing informal cooperation with tax offices is carried out by 20% of enterprises, with universities - 10%, with Internet portals - 13%, with local government administration offices -17%, and with banks by 12%. However, permanent formal cooperation took place in the case of cooperation with tax offices (M = 3, D = 4), with the Social Insurance Institution (in the case of 20% of the respondents), with Customs offices (10%), with insurance institutions (17%), with credit and leasing institutions (13.8%), with banks (34.5%), and with loan and guarantee funds (10.3%).

From the point of view of the innovativeness of enterprises, the most significant is the fact that cooperation with research and development units was rated the lowest. Within this group of institutions, the surveyed companies usually cooperate only sporadically with higher education

institutions, research and development units, and consulting companies. Cooperation with the majority of BEI is only sporadic. The majority of respondents cooperate more often only with institutions that help them to function on a daily basis, i.e. with tax offices or social security institutions, which by definition are not Business Environment Institutions.

The surveyed enterprises were also asked to indicate the impact of cooperation with individual business environment institutions on innovation. Their replies were graded on a scale ranging from -1 to 1, where -1 meant a negative impact on innovation, 0 no impact at all, and 1 meant positive impact. Of course, the answers were given only by those companies that had any cooperation with the Business Environment Institutions, and thus in the previous question they provided a minimum response 1. Details are contained in Table 3.

Table 3. The impact of business environment institutions on the innovation of the entities

surveyed

| | Impac | ct on inno | vation | Number | M * | D* |
|--|----------|------------|------------|------------------------|------------|----|
| Business environment institutions | -1 | 0 | 1 | of respon- dents | | |
| Governmental institutions | | • | • | | | |
| Legislative institutions | 22.2 | 64.4 | 13.3 | 90 | 0 | 0 |
| Public administration offices | 34.9 | 48.7 | 15.3 | 162 | 0 | 0 |
| Courts | 46.3 | 44.4 | 9.3 | 108 | -1 | -1 |
| Tax offices | 59.5 | 35.7 | 4.8 | 252 | -1 | -1 |
| Social Insurance Institution (ZUS) | 22.2 | 73.6 | 3.1 | 126 | 0 | 0 |
| Patent Office | 18.5 | 64.8 | 16.7 | 54 | 0 | 0 |
| Customs offices | 19.8 | 61.7 | 18.5 | 81 | 0 | 0 |
| Competition and consumer protection offices | 19.8 | 74.1 | 6.1 | 81 | 0 | 0 |
| Certifying institutions | 19.7 | 49.4 | 30.9 | 81 | 0 | 0 |
| Governmental institutions - average | 29.2 | 57.4 | 13,1 | | | |
| Units of the sphere of science, research and o | developm | ent (R&I | D) | | | |
| Higher education institutions | 7.8 | 14.2 | 78.0 | 141 | 1 | 1 |
| Institutes of the Polish Academy of Sciences | 22.2 | 66.6 | 11.1 | 9 | 0 | 0 |
| R&D units | 8.8 | 21.1 | 69.3 | 97 | 1 | 1 |
| Development units | 17.2 | 65.5 | 15.3 | 36 | 0 | 0 |
| Research and development departments of | | | | | | |
| large enterprises | 9.8 | 28.5 | 61.7 | 81 | 1 | 1 |
| Consulting companies | 10.4 | 22.4 | 67.2 | 134 | 1 | 1 |
| Scientific foundations | 17.8 | 67.8 | 14.4 | 56 | 0 | 0 |
| Internet portals | 15.9 | 49.5 | 34.6 | 202 | 0 | 0 |
| Units of the sphere of science, research | | | | | | |
| and development (R&D) - average | 13.7 | 41.9 | 43.9 | | | |
| Business support institutions | | | | | | |
| Local government administration offices | 17.2 | 66.3 | 16.5 | 218 | 0 | 0 |

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| Regional and local development agencies | 9.8 | 28.5 | 61.7 | 81 | 1 | 1 |
|--|------|------|------|-----|---|---|
| Chamber of Commerce | 20.5 | 69.2 | 10.3 | 78 | 0 | 0 |
| Guilds | 17.6 | 70.6 | 11.8 | 85 | 0 | 0 |
| Training and consulting centres | 22.6 | 51.6 | 25.8 | 155 | 0 | 0 |
| Patent information points | 22.4 | 67.1 | 10.5 | 67 | 0 | 0 |
| Incubators of entrepreneurship | 14.1 | 42.1 | 43.8 | 114 | 0 | 1 |
| European information centres | 18.9 | 63.2 | 17.7 | 79 | 0 | 0 |
| Technology transfer centres | 17.7 | 63.2 | 18.9 | 79 | 0 | 0 |
| Technology parks | 19.2 | 57.7 | 23.1 | 52 | 0 | 0 |
| Employers' organizations | 17.2 | 67.4 | 14.6 | 135 | 0 | 0 |
| Economic associations | 19.2 | 67.3 | 13.5 | 104 | 0 | 0 |
| Economic foundations | 20.0 | 71.4 | 8.6 | 35 | 0 | 0 |
| Professional associations | 18.2 | 51.5 | 30.3 | 66 | 0 | 0 |
| Economic information centres | 17.2 | 64.0 | 18.0 | 53 | 0 | 0 |
| Regional trade fairs | 12.0 | 11.3 | 76.7 | 176 | 1 | 1 |
| Local media (TV, radio, press) | 6.1 | 11.0 | 82.9 | 181 | 1 | 1 |
| Venture capital funds | 18.7 | 68.7 | 12.5 | 16 | 0 | 0 |
| Insurance institutions | 22.6 | 67.8 | 9.6 | 177 | 0 | 0 |
| Credit and leasing institutions | 13.5 | 67.3 | 19.2 | 104 | 0 | 0 |
| Banks | 2.7 | 4.6 | 92.7 | 211 | 1 | 1 |
| Loan and guarantee funds | 18.2 | 51.5 | 30.3 | 66 | 0 | 0 |
| Regional funding institutions (RIF) | 17.2 | 70.9 | 11.1 | 38 | 0 | 0 |
| Investment funds | 18.8 | 66.0 | 15.2 | 53 | 0 | 0 |
| Business support institutions - average | 16.7 | 55.0 | 28.1 | | | |

^{*}D – Dominant *M – Median

Source: own study based on the obtained research results

The answers seem to be quite interesting, since the respondents assessed that the type of cooperation, which in the above question was indicated as the most frequent, has a negative impact on their innovativeness. These responses relate primarily to cooperation with government institutions, such as tax offices, the Social Insurance Institution, courts or the Patent Office. Almost 30% of the surveyed companies assessed cooperation with the group of governmental institutions as affecting their innovativeness negatively. Next, 57.4% stated that cooperation with these units does not affect innovativeness, while only 13% indicated a positive impact of this cooperation. The second group of units was assessed completely differently. As many as 44% of the surveyed small and medium-sized entities recognized that cooperation with units representing the sphere of science, research and development has a positive impact on the level of their innovation. In this case, the most positive influence is exerted by the cooperation with higher education institutions, research and development units, research and development departments of large enterprises, and with consulting companies. On average, 55% of the respondents felt that cooperation with the last group of institutions, i.e. with business support institutions, had no

impact on their innovative activity, 28% considered this impact to be positive and 16% - negative. It is worth noting, however, that over 90% of small and medium-sized enterprises recognized that cooperation with banks has a positive impact on innovation activities. Only an appropriate level of financing can ensure regular implementation of innovations. Local media, regional trade fairs, regional development agencies, and business incubators are, according to the respondents, further business support institutions cooperation with which has a positive impact on the level of their innovation.

4. Conclusions

The research conducted has shown that the level of cooperation between Polish small and medium-sized enterprises and business environment institutions is very low. Cooperation is usually sporadic or only periodic. Long-term cooperation was found only in the case of a small percentage of entities. The surveyed enterprises most often cooperate with such institutions as state administration offices, tax offices, consulting companies, local media, banks or insurance institutions. However, it is not to be concealed that the institutions mentioned due to the very nature of their activity do not have a very big impact on the innovation of the companies surveyed. Moreover, the surveyed entities pointed out that quite often this cooperation has a negative impact on the number of implemented innovations. Public administration offices or tax offices often constitute a serious barrier to their development.

An aspect that instils slightly more optimism is drawing the attention of the respondents to the fact that cooperation with the vast majority of units representing the sphere of science, research and development, which are included in Business Environment Institutions, is assessed positively. If the company has already undertaken any cooperation with such an entity, it exerts a positive impact on the company's level of innovation. The most positive impact was exerted by cooperation with higher education institutions, which confirms the positive verification of the hypothesis. The entities surveyed also appreciate the assistance of consulting companies, research and development units, as well as research and development units of large enterprises.

The analysis of the results also confirmed that the cooperation of the surveyed companies with such business environment institutions as business incubators or regional development agencies is important when implementing innovations.

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Summarizing this multifaceted analysis, it is concluded that business environment institutions also address their offer to the sector of small and medium-sized service enterprises. Unfortunately, not all companies use this cooperation. It can be asserted that only a small part of them do. However, in cases when such cooperation occurred, business environment institutions had a positive impact on the implemented innovations in the surveyed organizations. It is a pity, however, that the intensity of cooperation of BEI with small and medium-sized service enterprises has been found to be on such a low level.

References

- Cyfert, Sz. (2013). Rola kadry kierowniczej w inicjowaniu procesów zmian granic organizacji, "Zeszyty Naukowe Politechniki Łódzkiej", nr 1144, Organizacja i Zarządzanie, z. 49, 25-34.
- Dominiak, J. (2013). Rola otoczenia biznesu w rozwoju regionalnym w Polsce, "*Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego*".
- Filipiak, B., Ruszała, J. (2009). Instytucje otoczenia biznesu. Rozwój, wsparcie i instrumenty, Difin, Warszawa Flipo, J.P. (2001). *L'innovation dans les activites de service. Une demarche a rationalize*, Editions d'Organisation,
- Flipo, J.P. (2001). L'innovation dans les activites de service. Une demarche a rationalize, Editions d'Organisation, Paris.
- Glabiszewski, W. (2016). Potencjał absorpcyjny przedsiębiorstw finansowych w Polsce w procesie transferu innowacyjnych technologii, Wydawnictwo Naukowe UMK, Toruń.
- Haffer, M. (1998). Determinanty strategii nowego produktu polskich przedsiębiorstw przemysłowych, Wydawnictwo Naukowe UMK, Toruń.
- Grego-Planer, D. (2016). Sektor małych i średnich przedsiębiorstw w Polsce. In: Zastempowski, M. (ed.) *Aktywność innowacyjna polskich małych i średnich przedsiębiorstw*, Wydawnictwo Naukowe UMK, Toruń, 45-80.
- Janasz, W. (2003). Innowacje i ich miejsce w działalności przedsiębiorstw. In: Janasz, W. (ed.), *Innowacje w modelach działalności przedsiębiorstw*, Uniwersytet Szczeciński, Rozprawy i Studia t. 520, nr 446, Szczecin.
- Liczmańska-Kopcewicz, K. (2017). *I*ntraprzedsiębiorczość jako źródło innowacyjności przedsiębiorstw w sektorze FMCG, "*Management Forum*" vol. 5 no. 4.
- Lisowska, R. (2013). Zarządzanie rozwojem małych i średnich przedsiębiorstw w obszarach zmarginalizowanych, Wydawnictwo Uniwersytetu Łódzkiego, Łódź
- Lisowska, R. (2014). Wsparcie rozwoju małych i średnich przedsiębiorstw przez instytucje otoczenia biznesu na przykładzie usługodawców logistycznych w województwie lódzkim, "Economics and Management", 2/2014.
- Matusiak, K.B. (2010). Uwarunkowania rozwoju infrastruktury wsparcia w Polsce. In: Matusiak, K.B. (ed.), *Ośrodki innowacji i przedsiębiorczości w Polsce. Raport 2010*. Warszawa: PARP.
- Ośrodki Innowacji w Polsce. Raport z badania 2014 (2014), Bąkowski, A., Mażewska, M. (eds), Polska Agencja Rozwoju Przedsiębiorczości.
- Porter, M.E. (1990). The Competitive Advantage of Nations, The Macmillan Press, London.
- Sudolska, A. (2010). Przejawy umacniania potencjału innowacyjności przedsiębiorstw sektora MŚP, "Zeszyty Naukowe Uniwersytetu Szczecińskiego, Ekonomiczne Problemy Usług", nr 51.
- Tarnawa, A., Zadura-Lichota, P. (eds) (2015). Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2013-2014, Polska Agencja Rozwoju Przedsiębiorczości, Warszawa.
- Tarnawa, A., Zadura-Lichota, P. (eds), (2014). Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2012-2013, Polska Agencja Rozwoju Przedsiębiorczości, Warszawa.
- Tidd, J., Bessant, J. (2011). Zarządzanie innowacjami. Integracja zmian technologicznych, rynkowych i organizacyjnych, Oficyna a Wolters Kluwer Business, Warszawa.
- Zadura-Lichota, P. (ed.), (2015), *Innowacyjna przedsiębiorczość w Polsce. Odkryty i ukryty potencjał polskiej innowacyjności*, Polska Agencja Rozwoju Przedsiębiorczości, Warszawa.

Wpływ instytucji otoczenia biznesu na innowacyjność polskich małych i średnich przedsiębiorstw usługowych

Streszczenie

Niniejszy artykuł porusza trzy zasadnicze zagadnienia. Pierwszym z nich są polskie małe i średnie przedsiębiorstwa usługowe, drugim Instytucje Otoczenia Biznesu, a trzecim wpływ tychże instytucji na innowacyjność wyżej wymienionych podmiotów. W publikacji zaprezentowano fragment wyników badań przeprowadzonych na grupie ponad dwustu sześćdziesięciu małych i średnich przedsiębiorstw usługowych. Analizowano intensywność współpracy tych podmiotów z instytucjami otoczenia biznesu w zakresie ich innowacyjności. Celem artykułu stała się ocena wpływu instytucji otoczeniu biznesu na innowacyjność polskich małych i średnich przedsiębiorstw usługowych. W badaniach zastosowano technikę badań ankietowych. Wyniki wskazały, że poziom współpracy polskich małych i średnich przedsiębiorstw działających w sektorze usług z IOB jest bardzo niski. Współpraca jest z reguły sporadyczna lub tylko okresowa. Większość z instytucji nie wywiera żadnego wpływu na innowacyjność badanych firm. Jedynie współpraca z jednostkami sfery nauki, badań i rozwoju okazuje się mieć istotne znaczenie dla innowacyjności respondentów.

Słowa kluczowe: małe i średnie przedsiębiorstwa, usługi, instytucje otoczenia biznesu, innowacyjność