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INVESTMENT ATTRACTIVENESS OF POLISH MUNICIPALITIES IN RELATION TO LOCAL ENTREPRENEURSHIP

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K e y w o r d s: entrepreneurship, investment attractiveness, region, local entrepreneurship.

A b s t r a c t

The aim of this article is to identify similarities and divergences in the entrepreneurship and investment attractiveness intensity. It also seeks to define the nature of this dependence, taking into account spatial differentiation in the scale of Polish provinces. Methods of spatial and statistical analysis based on data for all Polish provinces in Poland in 2008 and 2015 have been utilized in order to prove that the location values of provinces influence the intensity of entrepreneurship, as well as prove that inverse dependence is stronger.

The analysis, while exemplifying a bilateral relationship in this respect, showed a lower value for a relationship in which entrepreneurship is a variable depending on the investment attractiveness. Entrepreneurship raises investment attractiveness around smaller industrial centers. The location, as an influencing factor of entrepreneurial development, is distinctive for the areas undergoing a succession of economic functions in urban areas.

ATRAKCYJNOŚĆ INWESTYCYJNA POLSKICH GMIN A PRZEDSIĘBIORCZOŚĆ LOKALNA

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S ł o w a k l u c z o w e: przedsiębiorczość, atrakcyjność inwestycyjna, region, lokalna przedsiębiorczość.

Abstrakt

Celem artykułu jest wskazanie podobieństw i rozbieżności w natężeniu przedsiębiorczości i atrakcyjności inwestycyjnej, a także określenie i wyjaśnienie charakteru owej zależności z uwzględnieniem zróżnicowania przestrzennego w Polsce w skali gmin. W celu dowiedzenia tezy, że walory lokalizacyjne gmin mają wpływ na natężenie przedsiębiorczości, a zależność odwrotna jest słabsza, wykorzystano metody analizy przestrzennej i statystycznej na podstawie danych dla wszystkich gmin w Polsce w latach 2008 i 2015. Analiza wykazała istnienie zależności obustronnej w tej mierze, o niższej jednak wartości dla związku, w którym przedsiębiorczość jest zmienną zależną od atrakcyjności inwestycyjnej. Przedsiębiorczość podnosi atrakcyjność inwestycyjną wokół mniejszych ośrodków przemysłowych. Lokalizacja jako czynnik oddziałujący na rozwój przedsiębiorczości jest charakterystyczna dla obszarów poddawanych sukcesji funkcji ekonomicznych w regionach miejskich.

Introduction

In the case of local development, different types of forces are involved in stimulating economic activity. Entrepreneurs who succeed in increasing the scale of their business activity and force the local environment to adapt to their needs, enhance the investment attractiveness of the environment in which they operate. Businesses that influence the change of location values of a given place, and among them those that implement organizational, technological or technical solutions transferred from their foreign partners located in developed countries, resulting from pro-quality or pro-environmental regulations in other countries, are of great importance (RATAJCZAK-MROZEK 2014).

Economic development may also be based on initiatives that increase the investment attractiveness of a given location. This is achieved through direct national investments in less economically developed regions, and can also be reached through active pro-investment policies of local government units. Municipalities play a particularly important role in this, as one of their tasks is to create the basic infrastructure, as well as the proper administration of citizens, investors and entrepreneurs.

Motives behind entrepreneurship, as well as the effectiveness of local communities (entrepreneurial and local government leaders) are of great importance in this process (TÖDTLING et al. 2013).

In the name of a common goal, effective and resourceful communities may create cooperating companies even in unattractive environments and successfully collaborate and compete beyond the local market level. This has been demonstrated by examples of initiatives such as local action groups in the Lublin region, or cluster entrepreneur associations, e.g. the Cluster of boiler producers in Pleszew. Local companies can create local growth centers, regardless of the surrounding periphery. As a result of trust-based relationships and common goals, companies can create network relationships with geographically distant partners, even stronger than in their closest environment (GORZELAK, JAŁOWIECKI 2000, GANCARCZYK, GANCARCZYK 2002).

The aim of the article is to identify similarities and divergences in the intensity of entrepreneurship and investment attractiveness. It also seeks to define the nature of this dependence, taking into account spatial differentiation in the scale of Polish provinces.

Businesses led by people of working age translate into location benefits in the form of the presence of partners for other companies, which are important in establishing cooperative relationships. Entrepreneurs create local markets for other companies, which in turn creates jobs and generates tax revenues. Jobs and income stabilize the demographic situation, thus improving access to labor resources. Entrepreneurship development is conducive to the diversification of the skills of the working population, while facilitating the implementation of modern forms of labor management such as outsourcing and talent management. In conclusion, the higher the level of entrepreneurship, the higher the location benefits.

On the other hand, the more attractive an investment is, the higher the profit from doing business. Access to infrastructure, labor resources, and the prosperity of the local environment make it easier to run a business and allow it to grow (DURKA 2000). The relationship between investment attractiveness and entrepreneurship is beneficial to both sides.

However, the thesis of this paper is to state that the location values of municipalities influence the intensity of entrepreneurship and that the inverse relationship is stronger.

For the purpose of this study, the author analyzed data for the years 2008 and 2015 based on indicators of investment attractiveness for all municipalities in Poland. This was developed at the Institute of Enterprise at the Warsaw School of Economics, and was based on information from the Local Data Bank of the Central Statistical Office.

Methodical introduction

The following definitions are used to analyze the relationship between investment attractiveness and local entrepreneurship:

Potential investment attractiveness (PAI) is defined as "a set of regional location values that influence the attainment of investor's objectives (e.g. in the form of operating costs, sales revenue, net profitability, as well as the competitiveness of the investment)" (*Atrakcyjność inwestycyjna…* 2012).

It is defined as a conglomerate of features describing leading location factors. They are grouped under the following microclimates: labor resources, technical infrastructure, social infrastructure, the market and administration. The PAI1 GN index, based on 47 variables, has been utilized in this paper. It consists of the following spheres: "labor resources", "technical infrastructure", "social infrastructure", "the market", and "administration" – see Table 1. The weight-correlation method has been used for calculating the indicators (*Atrakcyjność inwestycyjna…* 2011, 2013).

Table 1

Components of the potential investment attractiveness index (PAI1_ GN) for the national economy

Symbol	Specification	Variable (stimulant: S, destimulant: D)	Weight
MZP	LABOR RESOURCES MICROCLIMATE		
MZP01	Percentage of non-working age population per 100 people of working age	D	1
MZP02	Rate of professional activity – number of people working per 100 people of working age	S	1
MZP03	Balance of permanent internal migration per 1000 inhabitants	S	1
MZP04	Balance of foreign migration per 1000 inhabitants	S	1
MZP05	Population of post-working age per 100 people of pre-working age	D	1
MZP06	Percentage of working-age population	S	1
MZP07	Expenditure on education and upbringing in PLN per inhabitant	S	1
MZP08	Expenditure on culture and protection of the national heritage in PLN per inhabitant	S	1
MIT	TECHNICAL INFRASTRUCTURE MICROCLIMATE		
MIT01	Percentage of population in the range of water supply	S	1
MIT02	Percentage of homes with connection to gas pipeline	S	1
MIT03	Percentage of population in the range of sewerage	S	1
MIT04	Density of the water supply network in km per 100 sq. km	S	0.333
MIT05	Density of the gas pipeline network in km per 100 sq. km	S	0.333
MIT06	Density of the sewerage network in km per 100 sq. km	S	0.333
MIT07	Percentage share of waste generated and disposed during the year to waste generated during the year	S	1
MIT08	Percentage of treated sewage to total sewage	S	1
MIT09	Expenditure on transport and communications in PLN per inhabitant	S	1
MIS	SOCIAL INFRASTRUCTURE MICROCLIMATE		
MIS01	Medical practice in rural areas and in the cities per 100 thousand inhabitants	S	1
MIS02	Total number of health care facilities per 100 thousand inhabitants	S	1
MIS03	Number of pharmacies per 100 thousand inhabitants	S	1
MIS04	Usable area of apartments in sq. meters per capita	S	1
MIS05	Number of computers with Internet access to all computers in primary schools [%]	S	1

MIS06	Number of computers with Internet access to all computers in junior high schools [%]	S	1
MIS07	Number of students per computer with Internet access in primary schools	D	1
MIS08	Number of students per computer with Internet access in junior high schools	D	1
MIS09	Number of borrowed book collections per 1000 inhabitants	S	1
MIS10	Number of inhabitants per 1 permanent cinema	D	1
MIS11	Number of spectators in permanent cinemas per 100 inhabitants	S	1
MIS12	Cubic capacity of new residential buildings in cubic meters per 100 inhabitants	S	1
MIS13	Number of inhabitants per 1 museum with branches	D	1
MIS14	Number of visitors to museums with branches per 1000 inhabitants	S	1
MIS15	Sports halls with dimensions from 36x19 to 44x22 m and 44x22 m and above per 1000 inhabitants	S	1
MIS16	Open and covered tennis courts per 1000 inhabitants	S	1
MIS17	Open and covered swimming pools per 1000 inhabitants	S	1
MIS18	Aqua parks per 1000 inhabitants	S	1
MIS19	Skate parks per 1000 inhabitants	S	1
MIS20	Length of bike paths per 1000 inhabitants	S	1
MR	MARKET MICROCLIMATE		
MR01	Population density (number of inhabitants per sq. km)	S	1
MR02	Revenue of municipal budgets from PIT per inhabitant (PLN)	S	1
MR03	Revenue of municipal budgets from CIT per thousand people employed (PLN)	S	1
MR04	Percentage share of revenue from agricultural tax in total tax revenue	D	1
MR05	Percentage share of expenditure on social assistance and other social policy tasks in municipal expenditure	D	1
MA	ADMINISTRATION MICROCLIMATE		
MA01	Land area covered by the municipal land use plan to the total land area of the municipality (%)	S	1
MA02	Funds for the municipality's own tasks obtained from other sources in PLN per inhabitant	S	1
MA03	Percentage share of own revenue in total revenue	S	1
MA04	Total asset-related spending to total current spending (%)	S	1
MA05	Percentage share of expenditure on municipal engineering and environmental protection, culture and heritage protection, public safety and fire protection	S	1

Source: own study.

Investment attractiveness index PAI1 ranges from 0 to 1. Classes have been defined for the purpose of comparative analyses. Their scope has been described by left-closed intervals with the following lower bounds:

class A: Av + S(x),
class B: Av + 0.5S(x),
class C: Av,
class D: Av – 0.5S(x),
class E: Av – S(x),
class F: 0,

where:

Av – arithmetic mean,
S(x) – standard deviation.

The entrepreneurship index is defined as the number of economic entities per every ten thousand citizens of working age. This article analyses the indices for the data from 2008 and 2015, while looking at the scale of changes and their spatial differentiation.

Statistical analysis has been performed using Pearson correlation coefficients, the Pearson correlation ratio method and cartographic analysis.

Changes in investment attractiveness from 2008–2015

The persistence of uneven economic development was particularly apparent during the period of Poland being under partitions. Equally important is the distance from the most economically developed regions of Europe (the so-called blue banana), in which innovations were and continue to be created in order to transform the socio-economic life of European societies. The further a region is situated from the innovation center, the later it receives developmental stimuli and the more difficult it is to progress. Therefore, investment attractiveness is determined by the level of economic development of particular areas of Poland. It is manifested in a traditional division into a better developed and more attractive Western Poland to investors and an underdeveloped Eastern Poland (Noworól 2007, Węcławowicz et al. 2006). At the same time, the urban agglomeration is developing more rapidly compared to rural areas, which results in a division into rich, attractive large cities and rural areas that are less appealing for investors – see Figures 1 and 2.

Increasing urbanization of rural areas has led to the enlargement of suburban zones of large cities. They also have production and service functions, as a result of the lack of investment areas in agglomeration centers and the growing demand for large plots of land suitable for mechanization and automation of logistic work investments.

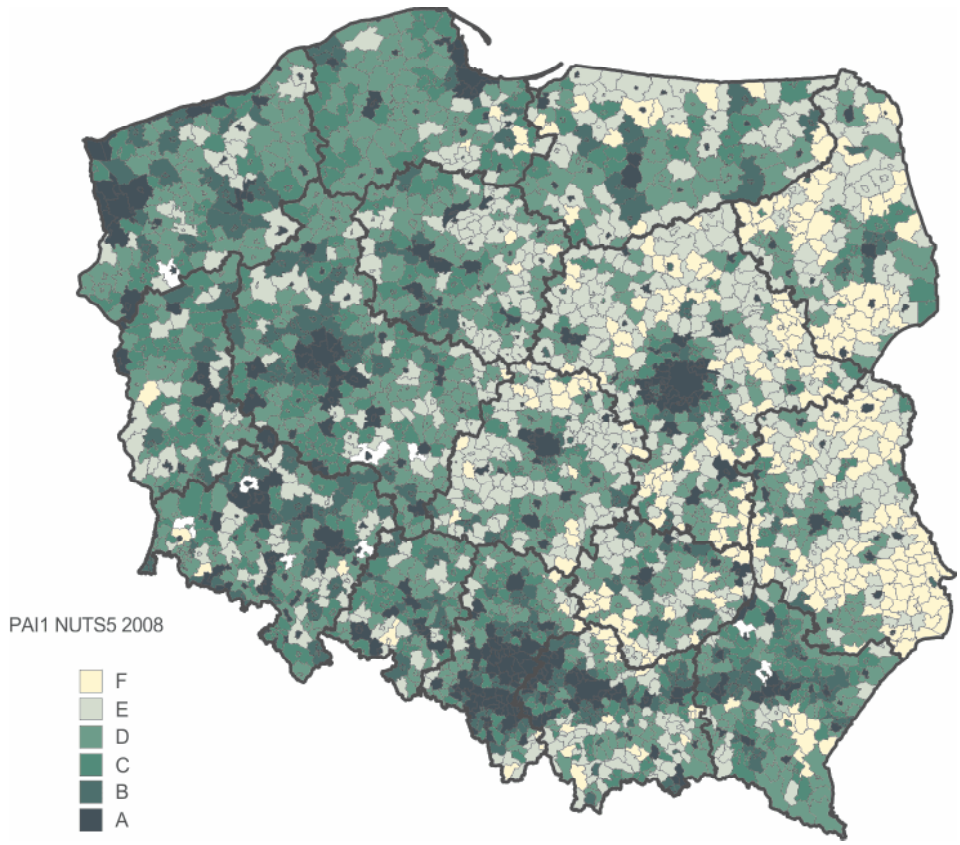

Fig. 1. Investment attractiveness of Polish municipalities in 2008
Source: own study based on research results from Institute of Enterprise, Warsaw School of Economics.

These conclusions are also justified in regard to the spatial differentiation of investment attractiveness of municipalities in the years 2008–2015. In the years 2008–2015 the most attractive investment municipalities included the following agglomerations: Warsaw, Katowice, Cracow, Lodz, Poznan, Szczecin and Trojmiasto (Gdansk, Gdynia, Sopot), which is connected to the numerous location values of large cities and their urban complexes.

The municipalities considered to be the least investment-attractive were a part of Eastern Poland, especially Lubelszczyzna, Podlasie, Eastern Mazovia and Eastern Podkarpacie.

In the analyzed period, changes in the obtained classes of investment attractiveness of individual municipalities were noticed. They can be the subject of comparisons, due to the fact that they are based on arithmetic means from a given period and multiples of ½ of standard deviation. Increased investment attractiveness of a given municipality by one or two classes in 2015 (in relation

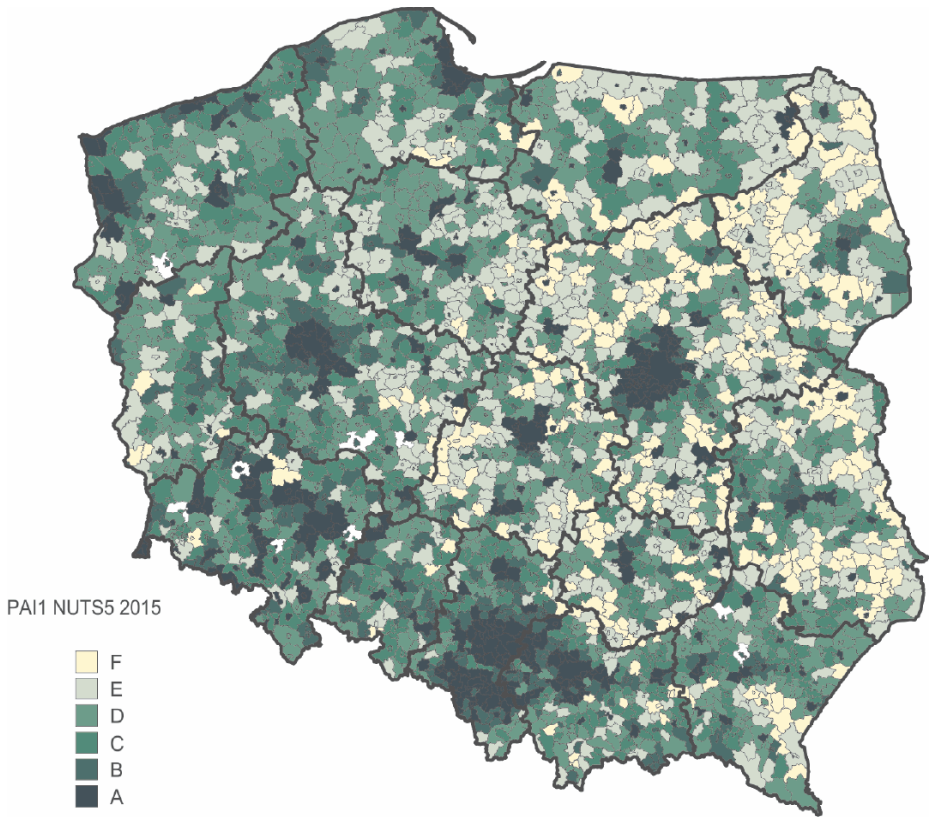

Fig. 2. Investment attractiveness of Polish municipalities in 2015
Source: own study based on research results from Institute of Enterprise, Warsaw School of Economics.

to 2008) means that in 2015 this unit increased its relative assessment of investment attractiveness, i.e. compared to the average attractiveness rating from 2008, by half or by one standard deviation. The change of the investment attractiveness class of a given municipality from a higher position in the initial period (in 2008) to a lower position in 2015 can be described analogically. It is also possible to interpret these ratios in such a way that maintaining the highest class A in both periods allows one to indicate a municipality that in both analyzed periods was characterized by above average location values in the statistical sense, as the investment attractiveness index in both periods under study is higher than the arithmetic average increased by the standard deviation.

Changes of the attractiveness classes of Polish municipalities in the years 2008–2015 are shown in Figure 3.

There is a visible decrease in the number of municipalities that have the lowest ranking of attractiveness. It is due to the increase of location values, and thus advanced them to a higher class by one or two levels. It is particularly

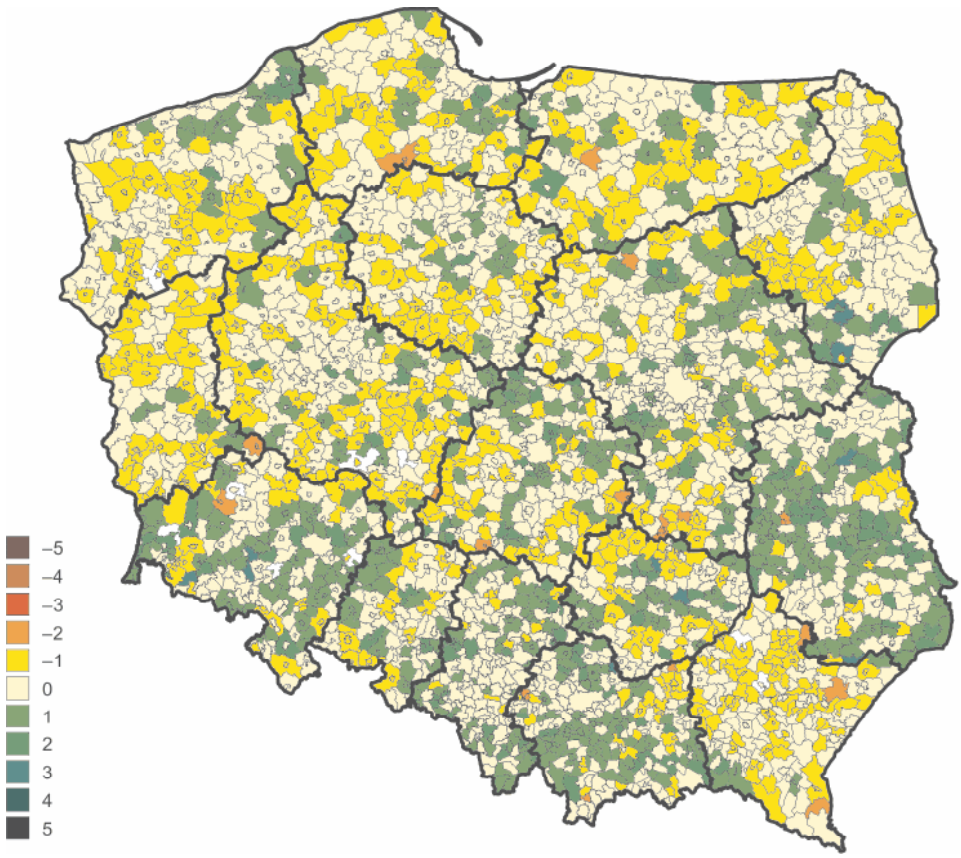

Fig. 3. Changes in investment attractiveness of municipalities in Poland in 2008–2015
Source: same as in Figure 2.

noticeable in the Lubelskie province and in the southern region of the Podlaskie province, as well as in many rural municipalities of Malopolskie province and the eastern part of Mazowieckie province. No new cluster of municipalities within the lowest class of attractiveness has been noticed.

In the case of areas with the highest investment attractiveness, there were no significant changes in spatial distribution and concentration. High investment attractiveness of the largest Polish agglomerations is maintained.

However, a slight reduction in the investment attractiveness around Szczecin is evident. The areas of the highest investment values around Upper Silesia, Cracow and Warsaw have slightly expanded. There has also been an increase in the investment attractiveness of the municipalities within Lublin's influence, as well as the zone connecting the Wroclaw agglomeration with the area around Legnica.

A question arises as to how the changes in the investment attractiveness of Polish municipalities are related to changes in the entrepreneurial attitudes of Poles, measured by the indicator of entrepreneurship.

Changes in entrepreneurship in Polish municipalities in the years 2008–2015

In order to grasp the logic of this dependence in Polish municipalities, one should analyze the spatial diversification of entrepreneurship. Similar to the case of potential investment attractiveness, in order to assess the intensity of entrepreneurship in Polish municipalities, we have used a division into classes from F to A, based on the arithmetic mean and a multiple of the standard deviation. Entrepreneurship indicators calculated in this way are presented in Figures 4 and 5.

The entrepreneurship factor is only partly related to the location of large cities and their suburban areas. In both studied periods, the highest indicators of entrepreneurship have been recorded in metropolitan type agglomerations, i.e. formed by one city constituting the center of the agglomeration. The Warsaw,

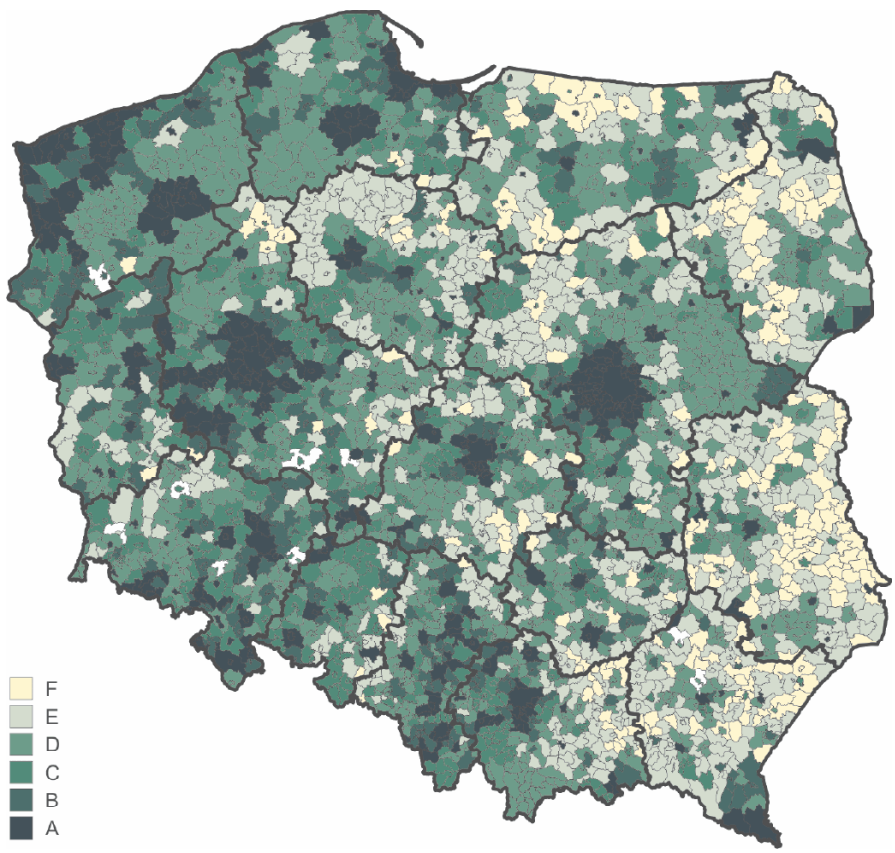

Fig. 4. Entrepreneurship indicators in 2008 according to municipalities
Source: own study.

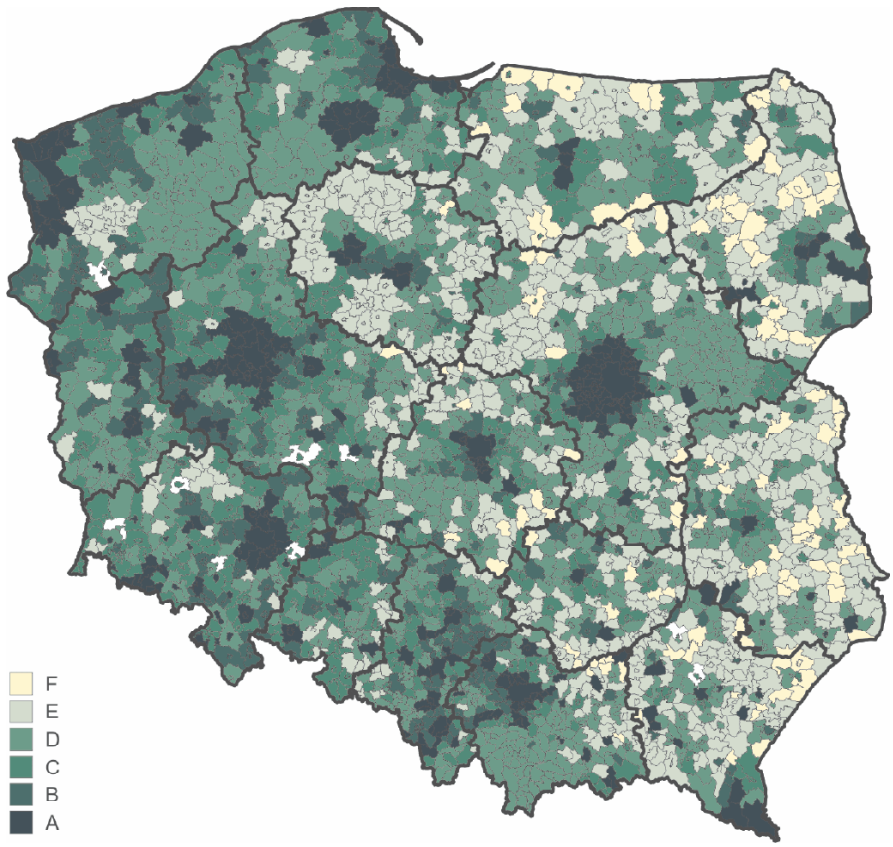

Fig. 5. Entrepreneurship indicators in 2015 according to municipalities
Source: own study.

Poznan, Wroclaw, Trojmiasto and Szczecin agglomerations stand out. Smaller clusters, albeit of an equally high class of entrepreneurship, have been formed in the Lodz, Cracow and Katowice agglomerations.

High entrepreneurship was also found in the tourist regions, particularly in the municipalities of Western Pomerania, as well as the municipalities of Bieszczady, Karkonosze and the Kaszubskie Lakeland.

Entrepreneurship indicators expressed in terms of classes decreased in the years 2008–2015 in Western Pomerania, in the maritime area and especially in the Lakeland; as well as in the southern part of the Kujawsko-Pomorskie province. The assessment of entrepreneurial activity in the eastern part of the Mazowieckie province increased – cf. Figure 6.

The preliminary analysis of cartograms shows that there is a fundamental convergence between changes in the spatial differentiation of investment attractiveness and entrepreneurship in municipalities. These changes were caused by

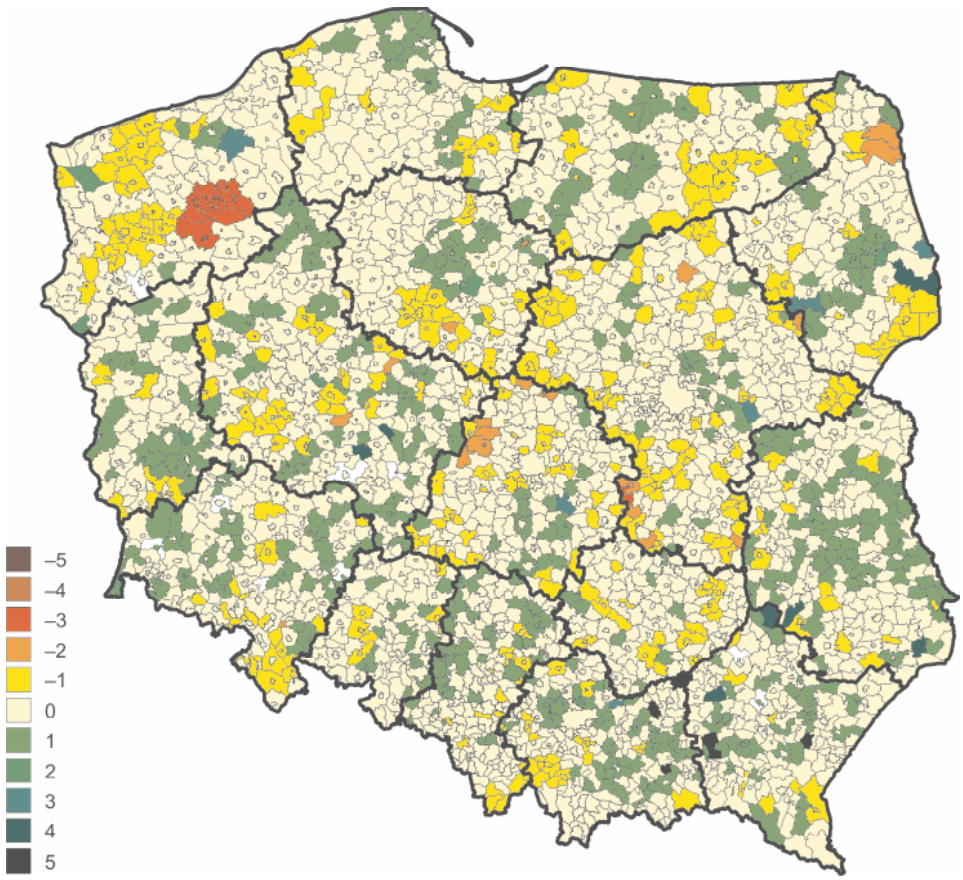

Fig. 6. Changes of the entrepreneurship class indicator in Poland in the years 2008-2015 according to municipalities

Source: own study.

occurrences that took place mainly in the micro-enterprise sector. Medium-sized companies became relatively numerous in the largest agglomerations. One can observe a fall in entrepreneurship in Western Pomerania, the northern part of Lubuskie province, and the southern part of the Malopolskie province, while the growth of the entrepreneurship class was noticed in the municipalities located in the eastern part of the Warminsko-Mazurskie province, and in the eastern part of the Mazowieckie province. This could be related to international exchange, which was fostered by good transport infrastructure, as well as tourism-related initiatives.

Divergences between investment attractiveness and entrepreneurship in Polish municipalities in the years 2008 and 2015

In order to find the relationship between investment attractiveness and entrepreneurship, it is possible to consider differences between investment attractiveness classes and entrepreneurship in the given municipalities and changes in these differences, which occurred between 2008 and 2015. To this end, the classes of investment attractiveness and the classes of entrepreneurship were compared. This was possible due to the division of both variables into six

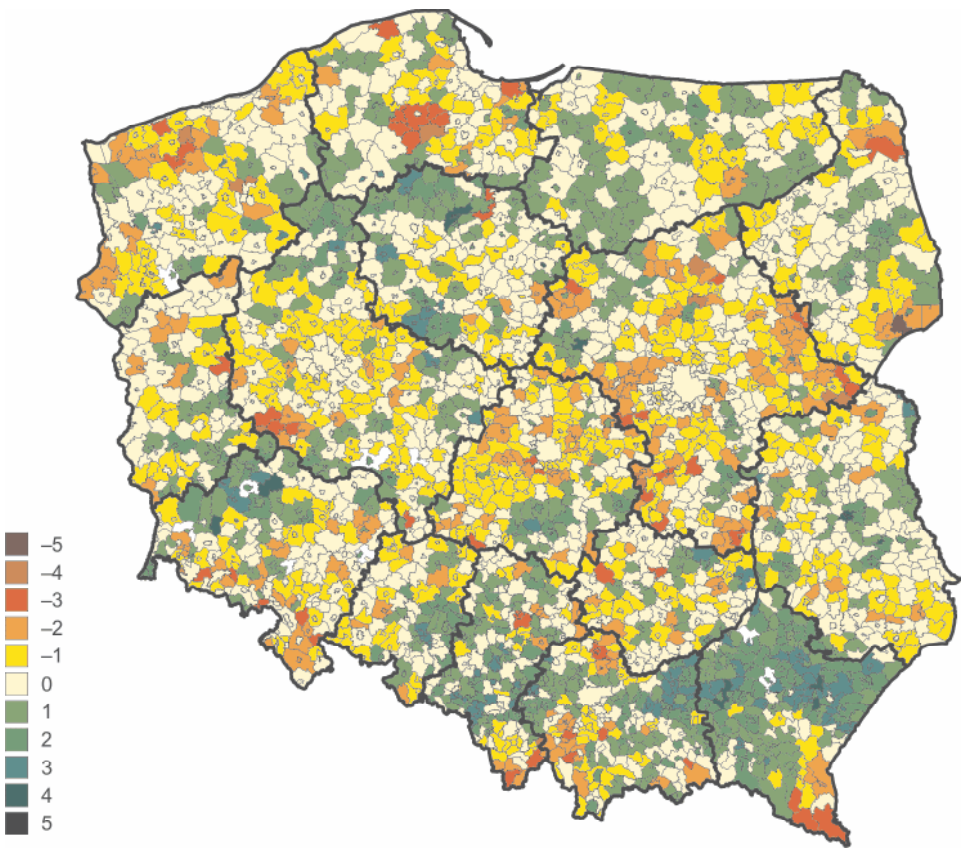

Fig. 7. Discrepancies between assessments of investment attractiveness and entrepreneurial classes in the year 2008 in Poland according to municipalities

Source: own study.

categories, based on the mean and standard deviation from the analyzed period. If the attractiveness class in a given year was higher than the entrepreneurship class, it means that there is an untapped investment potential available in this municipality. In the opposite case, it can be stated that entrepreneurship "uses" the investment potential of a given municipality and that it needs additional investments to adjust it to the needs of a local business.

Entrepreneurship is usually higher than the investment potential in tourist areas, which is apparent in both studied periods e.g., in Bieszczady, the Kaszubskie Lakeland, the coastal areas of Western Pomerania and the Tatry Mountains, see Figure 7 (the same trend has been observed in earlier years: *Innowacyjność jako czynnik wzrostu…* 2010).

Untapped investment potential is, however, characteristic of the northern part of the Podkarpackie province. This means that, despite the location values, entrepreneurship still faces barriers to development. The same is true for

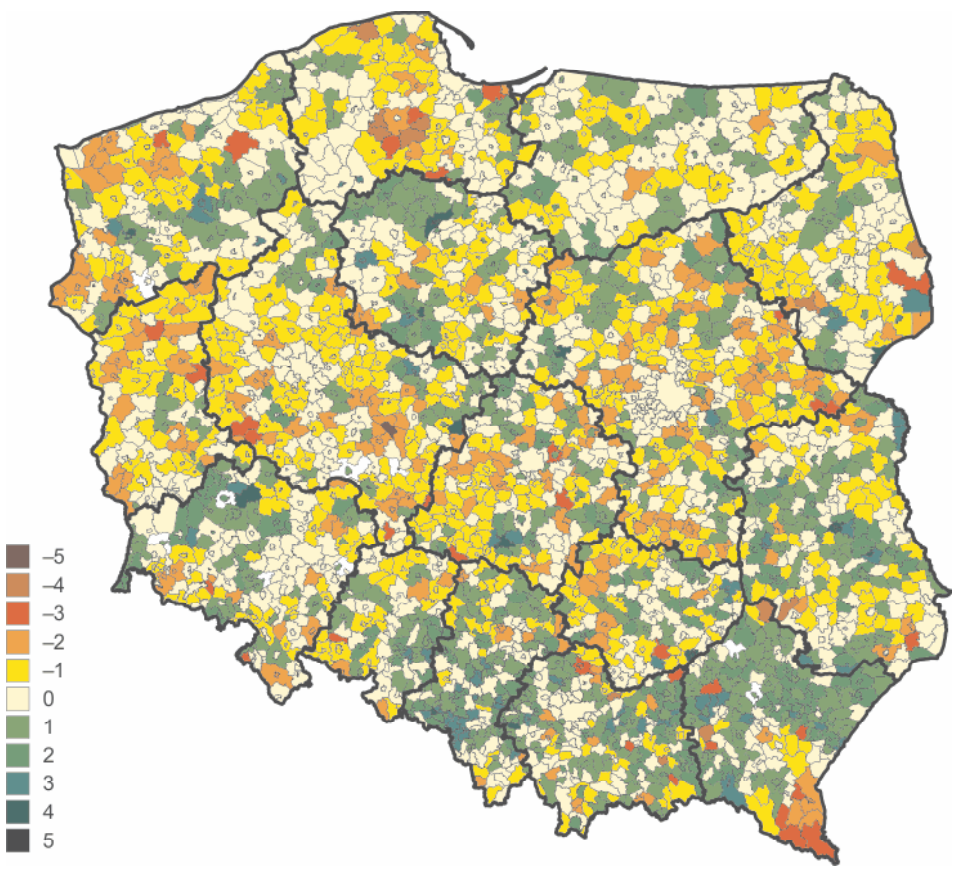

Fig. 8. Discrepancies between assessments of investment attractiveness and entrepreneurship classes in the year 2015 in Poland according to municipalities

Source: own study.

industrial centers which still do not benefit from the development of the economic base and its diversification. This concerns the Legnica-Glogow District, the Grudziadz area, the lignite mining facilities in Belchatow, Bogatynia, and the Puchacz municipality in the Lublin region, which have specialized in hard coal mining.

In the analyzed period, however, the difference between the relatively high rating of investment attractiveness and the indicator of entrepreneurship in some tourist regions and border areas was reduced – cf. Figure 8.

This especially applies to the coastal areas of Central Pomerania, as well as to the Suwalki Lake District.

Entrepreneurship as a factor supporting investment attractiveness vs. investment attractiveness as a factor supporting entrepreneurship

In order to assess if there exists a relationship between the investment attractiveness indicator and the entrepreneurship indicator (without the division into classes), a statistical test has first been used to find statistical dependence. In addition, the correlation between the PAI indicator and the entrepreneurship indicators for micro, small and medium enterprises was taken into account. There might have been a situation of attracting companies of a certain size to the given municipality, or conversely – numerous companies registered by local residents could have initiated the increase of location values of a given area in response to their needs both in the seed stage and in the development phase. Due to the absence of large companies in many municipalities, this group of companies was omitted in the study. The Pearson correlation coefficient amounts to 0.59 to 0.65 at a significance level of $p < 0.001$ for all tests, which, according to J. Guilford's scale, means high correlation (PUŁASKA-TURIN 2011).

This applies not only to the relationship between the assessment of investment attractiveness and the overall indicator of entrepreneurship, but also to the relationship between the investment attractiveness of municipalities and entrepreneurship in relation to micro, small and medium enterprises.

Compared to the 2008 data, correlation coefficients have been reduced in all the conducted tests. This may indicate a growing disparity between location values and entrepreneurial attitudes of local residents. This means that either financial streams for business development are growing, i.e. in the result of obtained subsidies (money that needs to be spent), or the expectations of entrepreneurs are too optimistic compared to socio-economic reality. Organizational changes may also occur as a result of organizational changes in leading local companies, cutting down their organizational structures through outsourcing. This, however, is not a common case, as indicators for the entire population of municipalities continue to maintain their high level.

On the other hand, in areas with low entrepreneurial activity, the problem with unused potential may be associated with a growing risk of doing business, especially in relation to the emigration of young people and the aging population. It may also be related to mental barriers and a weakened absorption of innovation, poorly-educated regional markets and a low participation in commodity exchange with other countries.

An analysis of correlation coefficients does not provide a basis for determining which direction of dependence is stronger, i.e. which variable is to a greater extent the explanatory one, and which is the explained variable. Pearson correlation coefficients (*Bazy danych…* 2007) have been used to answer this question.

Based on the data for the year 2015, it was found that the dependence of investment attractiveness on entrepreneurship is statistically higher – the index was 0.4998, whereas the reverse dependency was only 0.1532.

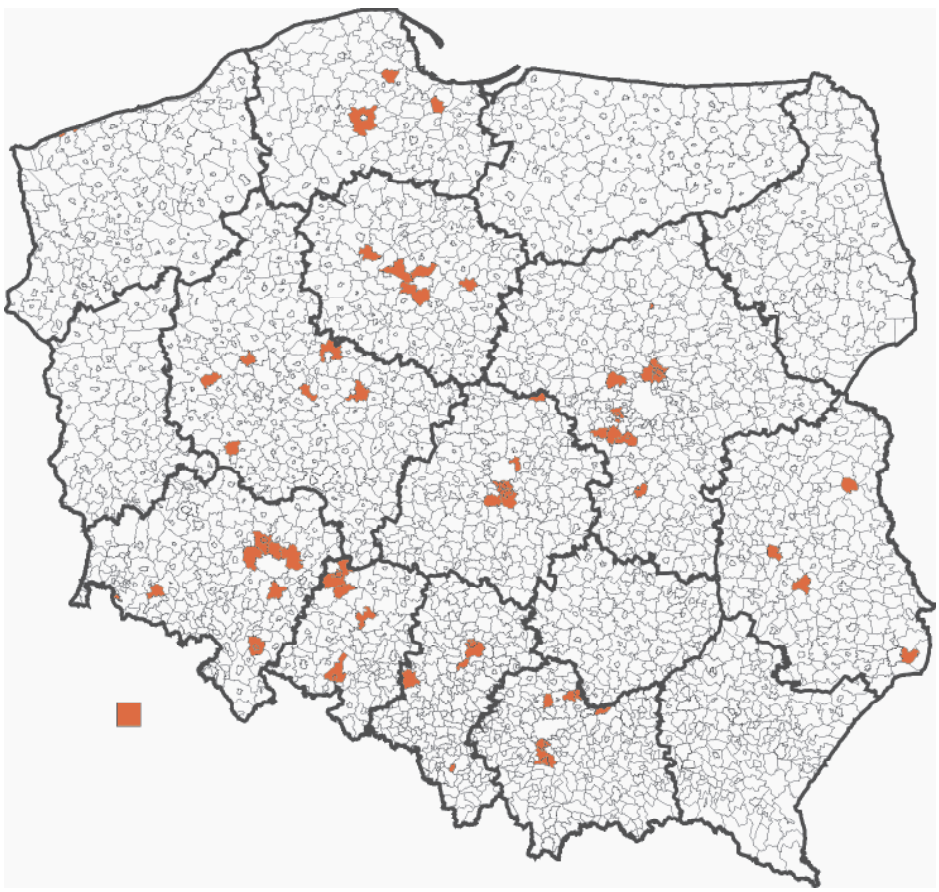

Fig. 9. Location of municipalities with entrepreneurial bases for increasing investment attractiveness in years 2008-2015

Source: own study.

This implies the heterogeneity of this dependence, which may be conditioned by the geographical location features, the proximity of other units, or the type of unit (urban, rural, urban-rural).

In order to verify this by using methods that take into account the specificity of the geographical location, cartographic analysis was used based on the following assumptions.

In the municipalities, entrepreneurship may influence the increase of investment attractiveness if the following three conditions are met:

– entrepreneurship index class> investment attractiveness class in 2008;

– entrepreneurship index class in the period under study has increased or remained at the highest level (A);

– attractiveness index increased during the analyzed period.

Investment attractiveness in municipalities may influence the growth of entrepreneurships if the following three conditions are met:

– entrepreneurial index class < investment attractiveness class in 2008;

– investment attractiveness index class in the period under study has increased or remained at the highest level (A);

– attractiveness index increased during the analyzed period.

The comparison results, considering the above assumptions are presented in Figure 9.

Based on the established assumptions, fifty eight Polish municipalities that meet all of the previously mentioned criteria have been selected. These are municipalities located in the immediate vicinity of large cities such as Warsaw, Wroclaw, Lodz and Cracow, as well as the neighboring Bydgoszcz and Torun. This exemplifies the importance of the production and service function shift from large cities to the suburban areas. Free space, as well as lower costs of doing business, is conducive to the creation of new facilities, which use, in their operational processes, competitive advantages connected with economies of scale and with automation processes. The creation of new or the modernization of already existing communication routes is also favorable.

Figure 10 shows the locations of municipalities in which investment attractiveness influenced entrepreneurship.

Table 1

The Pearson correlation index of municipalities investment attractiveness (PAI1) and entrepreneurship – p <0.001 in the years 2008 and 2015, taking into account the size of companies, with a confidence level of $p < 0.001$

Entrepreneurship	2008	2015
Entities in total including:	0.629	0.595
Micro	0.619	0.589
Small	0.521	0.520
Medium	0.629	0.594

Source: own study.

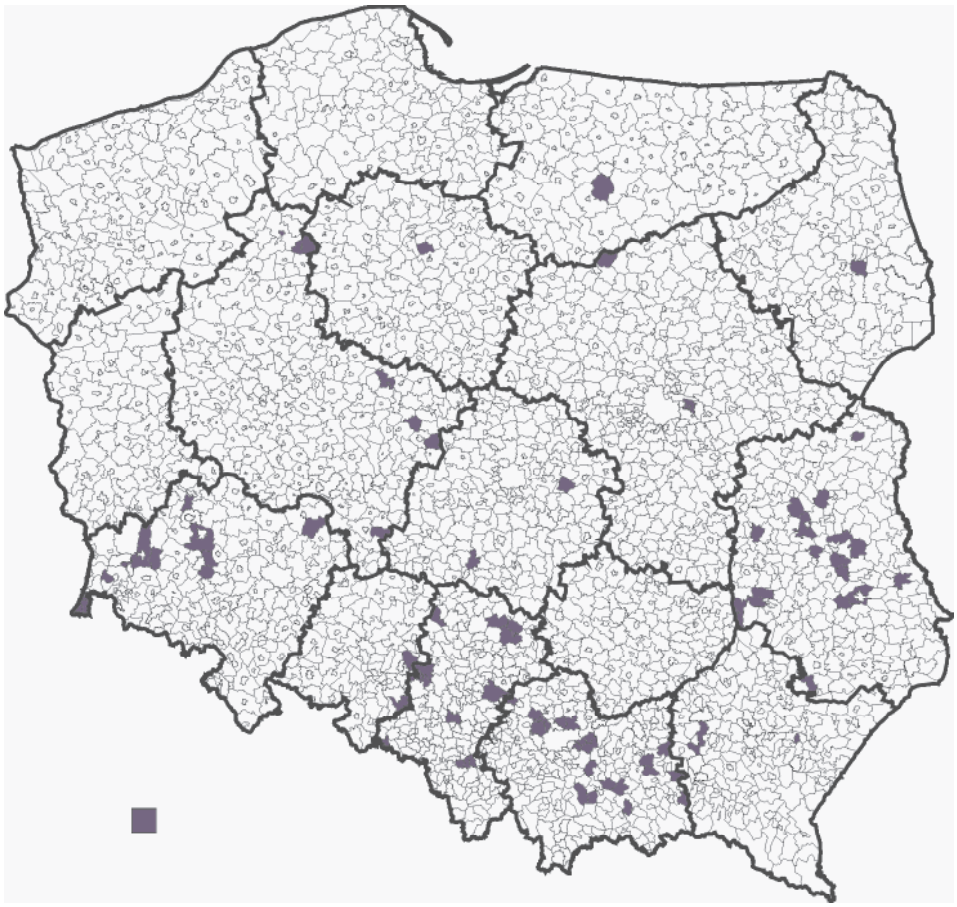

Fig. 10. The location of municipalities characterized by an increase of entrepreneurship caused by the growth or maintenance of the highest investment attractiveness class in the years 2008–2015

Source: own study.

According to the results of the procedure utilized, seventy-four municipalities have been selected that have raised or maintained an assessment of potential investment attractiveness during the analyzed period. The vast majority of such municipalities are located along the trans-regional communication routes and/or near industrial centers such as Legnica-Glogow the Copper District, the Bogdanka mine in Puchacz in the Lubelskie province, or the mines and power plants of Konin and Turek.

Conclusions

Spatial differentiation of municipal investment attractiveness does not show significant changes in the analyzed period. A high investment attractiveness of highly urbanized areas, industrial, and tourist centers has continued to be maintained. However, there is a visible one class promotion of investment attractiveness assessment of the numerous economically underdeveloped rural municipalities in the Lubelskie province and in the mountain regions of the Malopolskie province. Also the eastern part of the Dolnoslaskie province stands out in this respect due to the strong influence of numerous special economic zones.

Furthermore, the spatial diversification of the entrepreneurship index has not changed significantly during the studied period. However, one can notice a decrease in the intensity of entrepreneurship in regions that have exceeded their development thresholds. This applies, for example, to coastal centers in the Zachodniopomorskie province. Entrepreneurship intensity shows a great convergence with the spatial diversification of investment attractiveness. Nonetheless, spatial divergence (understood as a divergence in the intensity of both phenomena in a given place) of areas is still visible, especially in suburban zones of large cities and in areas with strong tourist functions. Divergence areas were subject to slight variations during the period under study, usually not exceeding half the standard deviation. While in 2008, the zones with above-average entrepreneurial intensity "spilled significantly" beyond the centers of the agglomerations, especially the Warsaw and Poznan zones. In 2015, spatial concentrations of municipalities with above-average ratings of both investment attractiveness and entrepreneurship became similar, especially in the Warsaw agglomeration. However, there still remains a visible discrepancy with respect to the Katowice agglomeration, where entrepreneurship is maintained at a much lower level compared to the investment attractiveness ratings.

Studies have shown that there is a two-way relationship between investment attractiveness and entrepreneurship – both processes lead to local development.

Location values of municipalities stimulate entrepreneurship near industrial centers or towns in the early stages of suburbanization.

Entrepreneurship has an influence on changes in investment attractiveness, especially in suburban areas of big cities (particularly those with a strong succession of citygenic functions) and near new or modernized national roads and highways.

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THE ROLE OF LOCAL GOVERNMENT IN THE CREATION OF INNOVATION IN REGIONAL PERIPHERAL ECONOMIES (A CASE STUDY OF THE LUBLIN REGION, POLAND)

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K e y w o r d s: local economy, local innovation strategies, factors of innovation.

A b s t r a c t

The subject of this work is to find ways to strengthen the innovativeness of economies in local systems, both from government authorities and business entities. The aim of the study is to assess the scale and scope of activities undertaken by the examined local government units aimed at strengthening the innovativeness of local economies. The paper presents the perspective of local government and enterprises, which allowed for a positive verification of the hypothesis of the existing inconsistency between the activity of government authorities and the expectations of entrepreneurs in support of their pro-innovation activities by local governments. The paper demonstrates that activities aimed at creating innovative conditions have been undertaken on a small and limited scale by local authorities. Nevertheless, local authorities are aware of the need to intensify activities that are particularly important for the local economic sector. The empirical part of this work was based on the results of a survey conducted in 2015, using an interview questionnaire addressed to representatives of local authorities and enterprises in two counties of the Lubelskie Province. The research material consisted of 14 interviews with representatives of municipalities and 147 interviews with entrepreneurs.

ROLA WŁADZ SAMORZĄDOWYCH W KREOWANIU INNOWACYJNOŚCI GOSPODARKI REGIONU PERYFERYJNEGO (STUDIUM PRZYPADKU REGIONU LUBELSKIEGO, POLSKA)

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S ł o w a k l u c z o w e: lokalna gospodarka, lokalne strategie innowacji, czynniki innowacyjności.

Abstrakt

Celem badań jest ocena skali i zakresu działań podejmowanych przez jednostki samorządu terytorialnego, ukierunkowanych na wzmocnienie innowacyjności lokalnych gospodarek. Zaprezentowano perspektywę władz samorządu terytorialnego i przedsiębiorstw, co umożliwiło pozytywną weryfikację hipotezy o istniejącej niespójności między aktywnością władz samorządowych i oczekiwaniami przedsiębiorców odnośnie do wsparcia ich działań proinnowacyjnych ze strony samorządów. Wykazano, że aktywność na rzecz tworzenia uwarunkowań sprzyjających innowacyjności przez władze samorządowe była podejmowana w niewielkiej skali i w ograniczonym zakresie działań. Wśród władz samorządowych istnieje świadomość potrzeby intensyfikowania działań szczególnie ważnych dla lokalnego sektora gospodarczego. Część empiryczną pracy oparto na wynikach badań sondażowych zrealizowanych w 2015 roku z wykorzystaniem kwestionariusza wywiadu skierowanego do przedstawicieli władzy lokalnej oraz przedsiębiorców na terenie dwóch powiatów województwa lubelskiego. Materiał badawczy stanowi 14 wywiadów z reprezentantami gmin i 147 wywiadów z przedsiębiorcami.

Introduction

The authorities of local territorial units are responsible for all matters referring to a given town or a particular municipality, including, among others, the elaboration of development plans and strategies, the formulation of local development policies and the ongoing functioning of the particular territorial unit. The efficiency and effectiveness of these tasks are determined by the conditions and factors arising from the location, the current state of development, the level of development, the regional policy of the state, the internal development policy of the region, as well as from cooperation and territorial coordination. These factors are of particular importance for local systems located in the peripheral regions. The activity of local governments and business entities plays a key role for the local systems. Local governments shape the paths of development and the way of using local potential and create external conditions for investment while the business entities, through their activity, create processes of growth and development. Currently, development of entrepreneurship aimed at implementing innovation in enterprises and an increase in the level of innovation of the whole territorial system are considered to be essential for improving the competitiveness of territorial units.

The problem in this article concerns the development of local development policy aiming at strengthening the innovativeness of the local system. The article represents a strengthening viewpoint that draws attention to the need for a territorial approach to stimulate innovation in economies (Barca 2009, Capello, Lenzi 2013, Crevoisier 2014) and the importance of the institution in this process (Rodriguez-Pose 2010, Sokołowicz 2015). As a result of the strengthening of the territorial approach, the concept of territorial capital is developing (Camagni 2017, Zaucha et al. 2015.)

The analysis of innovations in the territorial dimension is connected with a systemic approach. According to a systemic approach, innovations are the result of social interactions between economic actors. The system of innovation is an open system in interaction with its environment (BRACZYK et al. 1998, p. 11). The significance of the geographical dimension of innovation systems has naturally emerged as a consequence of the emphasis put on the relations with sources of knowledge and innovation external to the firm (IAMMARINO, MCCANN 2013, ASHEIM, ISAKSEN 2002). It should be emphasized that external sources of useful knowledge are particularly important for smaller operators due to their limited technical, financial and human resources (STAWASZ 2015, p. 167).

The channels through which knowledge spills over a local area are identified in the relational capital of the area. This term can be defined as all relationships established between firms, institutions and people, which stem from a strong sense of belonging and a highly developed capacity of cooperation typical of culturally similar people and institutions (CAPELLO, FAGGIAN 2005). High capabilities in social interaction and communication, particularly in the forms of high trust, learning capacity, and networking competence are bound with the economic and social success of a firm (MORGAN, COOKE 1998).

The category of innovative milieu is a broad category of innovations, relationships and territory (CREVOISIER 2004). Dynamic milieus as systems in which one might work to stimulate innovation are local and regional systems of innovation, where the local milieu is the central focus (DE LA MOTHE, PAQUET 2012, p. 2, 6).

Institutions in the systems of innovation fulfill a number of functions. The functions of institutions in relation to innovation are: providing information and reducing uncertainty, managing conflicts and cooperation, providing incentives, as well as channelling resources to innovation activities. On the other hand, institutions could also cause barriers to innovation processes (EDQUIST, JOHNSON 1997, p. 51-55). In the development of the innovativeness of regions and their organizations, professional and effective local and regional authorities have begun to play an increasingly important role (HUCZEK 2012, p. 32). What needs to be emphasized is that local and regional authorities should be coordinated (MUSCIO 2006, p. 775).

Literature with regards to the subject emphasizes that the concept of learning regions is of great importance for territorial innovation processes. What can also be defined is a local learning system, which consists of actors that are highly interrelated in structures that are flexibly managed (NOWAKOWSKA et al. 2011). Local authorities create a key strength in this system which is potentially capable of creating innovation in local economies. The role of the authorities in stimulating development is to create conditions for the cooperation of various local actors to achieve common development goals (GUZAL-DEC 2017, p. 64, ZWOLIŃSKA-LIGAJ 2015a, p. 336-338). They are an important part of the local innovation environment (local innovation milieu) which is determined by: the scale of local innovation,

the cooperation and collaboration of companies, as well as the scale of localization and agglomeration effects (SHEFER, FRENKEL 1998, p. 187).

In the case of territorial units, the innovativeness is understood as the ability to participate in the innovation cycle and is perceived as their development objective. Implementation of local, pro-innovative economic, social and spatial policy that enhances the competitiveness of the local economy should stimulate the improvement of the ability of business entities to participate in the innovation cycle (BROL 2009, p. 60).

Territorial self-government units have a wide range of instruments to stimulate the innovation of a given area. These include various actions to improve entrepreneurial conditions as well as instruments targeted strictly at stimulating innovation. The second group includes: financial instruments, organizational and legal instruments, creation of innovative awareness and animation of network relations (NOWAK et al. 2011). The issue of innovation should therefore be adequately covered in the provisions of the local development strategy and included in the promotional activities of the local government unit (*Przewodnik*… 2015). The particular involvement of local authorities in pro-innovation activities is, however, taking place when local innovation strategies are being developed and implemented (ADAMOWICZ 2015, p. 12).

In the process of stimulating local innovation, the competence of local authorities is of great importance. The research conducted in the Lublin Voivodship confirmed relations between the competencies of local authority representatives and measures supporting the competitiveness and innovativeness of local companies. The ability to create entities that support local companies and the ability to meet the companies' needs have a visible impact on the innovativeness of the firms (PYLAK et al. 2014, p. 285).

The aim of this study is to assess the scale and scope of activities, which are undertaken by local government units and are aimed at strengthening the innovativeness of local economies. This work analyzed the actions resulting from the provisions of the local innovation strategies of the examined districts. The paper presents the perspective of local self-government and enterprises. The hypothesis concerning the existing inconsistency between the activity of self-government authorities and entrepreneurial expectations regarding the support of their pro-innovative actions by territorial self-governments was formulated. It was assumed that local government authorities perform an insufficient number of pro-innovation activities which result from direct cooperation with the business community. In other words, the local government does not offer enough tools of direct support.

Material and Methods

Empirical research was carried out in the Lubelskie Province. It is a region with a number of features characterizing its peripheral character. It is a region at an average level of development of innovative potential, classified into a group of provinces that deepen their delay and lose distance (*Diagnoza…* 2013, p. 13).

In the Lubelskie Province, local (district) innovation strategies (LISs) have already been developed within the framework of the systemic project entitled "Intellectual Capital of the Lublin Region 2010-2013" commissioned by the Marshal's Office of the Lubelskie Province. They covered the formulation of assumptions of local innovation strategies for selected districts, indicated as areas of potential growth or areas directly threatened with stagnation[1]. Two districts have been selected for the study, the Pulawski district, which has been included in the areas of potential growth, and the Bialski district, which represents the areas threatened with stagnation. In the local innovation strategies of the surveyed districts, priority was given to the following development directions (ZACHER et al. 2017a, 2017b):

– creation of conditions for the development of the local innovation system;
– strengthening of the process of technological specialization of the district;
– strengthening of the process of functional specialization of the district.

In each of the districts, seven municipalities were selected for the study[2]. The selection of research units was made taking into account their degree of development and the specificity of their differentiated location in the district area and the nature of their economy. In each of the fourteen units that were subjected to analysis, a survey was conducted using an interview questionnaire addressed to a representative of the local authority – a head of the community or a mayor. In addition, in the examined municipalities[3], based on the REGON register, 10 to 15 companies were selected for the survey. The selection was made on the basis of the municipality type, the number of economic entities in the municipality, the reflection in the sample of the branch structure of the economic operators in the municipality and the highest employment level. A method of diagnostic survey with the use of an interview questionnaire addressed to the owners (or managers) of the companies was used as the tool for the research. Standardized personal interviews were conducted by a research company.

[1] Project implemented in the framework of the Human Capital Operational Program, Priority VIII Regional human resources for the economy, measure 8.2. Transfer of Knowledge, sub-measure 8.2.2. Regional Innovation Strategies, www.kil.lubelskie.pl.

[2] In the Bialski district: Miedzyrzec Podlaski and Terespol towns and rural communes of: Terespol, Wisznice, Tuczna, Drelow and Konstantynow (36.8% of territorial units were examined); In Pulawy district: the town of Pulawy and the urban-rural communes of: Kazimierz Dolny and the town of Nałeczow and the rural communes of: Baranow, Janowiec, Wawolnica, Kurow (63.6% of territorial units were examined).

[3] In Pulawy district, due to the smaller number of municipalities, Wawolnica commune was excluded from the studies.

The research was financed by the Pope John Paul II State School of Higher Education in Biała Podlaska, under the Own Research Grant Fund. The study mostly used closed questions. The actions included in the local innovation strategies of the examined districts were assessed. Local authorities have confirmed their activity in the area or have reported a lack of it. The authorities have also pointed out the three most important actions that need to be intensified. Entrepreneurs assessed the activity of the authorities on a scale of 0-5, where 0 meant no activity and 5 was very high. Using the same scale, entrepreneurs also assessed the importance of the activity of the municipality authorities to strengthen company innovativeness. Local authorities also pointed out the three most important of the 14 actions that depend on the possibilities of increasing the innovativeness of the municipality. There was an opportunity to provide open-ended answers, but none were given.

The examined sample was dominated by micro-enterprises operating in the form of sole proprietorships. The surveyed companies mainly represented the services, trade and construction sectors. A total of 147 interviews were collected, including 80 in the Bialski district and 67 in the Pulawski district. The research was conducted from July 1st to August 10th, 2015 (71.64% in Pulawski district and 51.5% in Bialski district). The results of the research were processed using statistical software (Statistica). They are presented in descriptive and graphic form in tables.

The activity of local authorities to strengthen the innovativeness of local economies – the perspective of local government

In the examined local self-government units, the activity to create favorable conditions of innovation was undertaken on a small scale and within a limited scope. The most frequently declared actions aimed at creating conditions conducive to the development of local innovation systems in the examined local government units were: establishing international contacts, introducing pro-innovative changes in municipal offices, establishing cooperation with other national units of local government, expanding the sphere of science and the business environment, as well as encouraging organizations to contribute to the socio-economic development of their areas (Tab. 1).

Insufficient emphasis was placed on the activities which required specific involvement. Also, there was an insufficient amount of financial resources given to adequately prepare employees. Rarely, local government institutions supported innovative projects involving, inter alia, the development of cooperation networks and undertaking activities related to the dissemination of various types of knowledge supporting local entrepreneurs in their innovative activity.

Table 1

Selected activities undertaken from 2010 to 2015 by local governments aimed at creating conditions for the development of the local innovation system resulting from local innovation strategies by districts and types of surveyed territorial units (number of indications, $N = 14$)

Measures	Pulawski district			Bialski district		In total
	rural communes	urban-rural communes	urban commune	rural communes	urban communes	
Establishing international contacts	2	1	1	4	1	9
Implementation of modern IT solutions in the office	2	1	1	4	–	8
Raising the qualifications of the office staff	2	1	1	4	–	8
Creating links between self-government units	–	2	1	4	1	8
Cooperation with scientific institutions and the business environment	2	2	1	3	–	8
Application of advanced technologies in the municipal economy	2	2	1	2	–	7
Participation in integrated projects implemented by innovation centers, producer groups, LAGs and others	2	2	1	1	1	7
Support for innovative projects, including networking	1	1	–	4	–	6
Popularization of knowledge about funding opportunities for innovative projects	1	–	1	2	1	5
Supporting the promotion of local brands	2	1	–	1	–	4
Creating web sites / platforms for popularizing knowledge, exchanging experiences on innovative business opportunities	–	1	1	1	1	4
Preference of innovation in the implemented development directions of the municipality	–	–	1	3	–	4
Dissemination of knowledge about the benefits of cooperation	–	–	–	2	–	2
Development of public-private partnerships	1	–	–	–	–	1

Source: own calculations based on research.

Development of cooperation with the business sector in such areas as the promotion of local brands, the application of preferences for innovative directions in the development of local economies, or joint action with the business sector in the form of public-private partnerships, also constituted an underused type of activity aimed at the improvement of local innovation conditions. In the Bialski district, a fairly high level of activity in the examined areas was observed in the rural communes, whereas in the Pulawski district – high activity was noted in urban-rural communes and in the town of Pulawy.

In the examined units of territorial self-governments, the involvement of local authorities in supporting the development of the technological specialization[4] of the local economy was not noticed. According to the declarations of the respondents, the most supported area of economic activity was tourism. Nevertheless, the support was provided quite rarely through the development of integrated tourism projects using modern information and communication technologies. The factor which favored the development of this sector was the high activity of the authorities in strengthening the cooperation of institutions promoting cultural, ethnic and local tourism (Tab. 2).

Development of the sector with relation to the protection and promotion of health was declared less often, while the development of the agri-food production sector was declared very rarely, also within the framework of supporting the implementation of innovative solutions in this sector. A small group of local governments took measures to support selected sectors, which are important for the local economy, and to develop products and/ or services, which are based on local raw materials. More favorable support should be given to the entire sector of the bioeconomy, which is the key smart specialization of the region and creates a wide range of innovative opportunities in the peripheral regions. Within the framework of the bioeconomy, attention should be paid to the development of ecoproducts (Zwolińska-Ligaj 2015b, 2016). The authorities showed great interest in improving the conditions of accessibility of local entities to modern IT and technical infrastructure. This interest should be seen as a favorable condition for the development of local economies.

In the framework of the measures that support the selected sectors of local economies, the activity of rural and urban local government institutions from the Bialski district is especially noticeable. In the Pulawski district, the urban-rural communes were characterized by greater activity in the analyzed areas in comparison to rural communes.

The representatives of the self-governments that were subjected to the survey, indicated measures, which according to them, need to be intensified in order to increase the innovativeness of the municipality. Such measures consisted mainly of various forms of self-government involvement in the development

[4] Defined as "the structure of the distribution of activities across different sectors of a country" (Archibugi, Pianta 1992, p. 1).

Table 2

Selected measures, which have been undertaken from 2010 to 2015 by local governments with the aim of strengthening the technological specialization of the commune, resulting from local innovation strategies according to communes and the types of the territorial units studied. (number of indications, $N = 14$)

Measures	Pulawski district			Bialski district		In total
	rural communes	urban-rural communess	urban commune	rural communes	urban communes	
Development of cooperation of institutions promoting cultural, ethnic and local tourism	1	2	1	5	2	11
Development of IT and technical infrastructure	2	1	1	5	2	11
Supporting the promotion of the region's tourist attractions, implementing and developing niche products and tourism services	2	2	1	4	1	10
Reinforcement and development of the sector related to the protection and promotion of health	1	1	–	3	2	7
Support for the development of key sectors of the local economy	–	1	–	3	2	6
Support of cooperation for the development of products and services based on local raw materials	–	2	–	2	–	4
Implementation of integrated tourism projects using ICT	1	1	–	2	–	4
Supporting the implementation of innovative solutions for agricultural and agri-food production	–	1	–	2	–	3
Supporting the production, promotion and distribution of agri-food products	–	–	–	1	–	1

Source: own calculations based on research.

of innovative projects (14 indications), including the popularization of knowledge referring to funding opportunities for innovative projects (5), other activities to support innovative projects (4), creation of websites/ platforms for popularizing knowledge, exchanging experiences on innovative business opportunities (3) and participation in integrated projects implemented by the institutions supporting innovation (2). According to respondents' opinions, another group of measures were aimed at strengthening the innovativeness of selected sectors of the local

economy (10 indications), including mainly agri-food production (5). However, the development of tourism products and services (1) and the development of the sector of health protection products and services (1) have been identified as being of little importance. The efforts to foster cooperation for the development of local products and services, as well as the promotion of local brands (3), were underpinned as a potential factor for the development of local economy innovation. The third group of activities, which was included in the priority actions aimed at increasing the innovativeness of the districts, were those connected with the functioning of municipal offices and the performance of their own tasks (6 indications). The last and least frequently mentioned group of actions of key importance for the increase of the innovativeness of the municipality was

Table 3

Activities where the possibility of increasing the innovativeness of a commune depend, as indicated by the representatives of the surveyed units of territorial self-government according to the districts and the types of examined territorial units. (number of indications, $N = 14$)

Measures	Pulawski district			Bialski district		In total
	rural communes	urban-rural communes	urban commune	rural communes	urban communes	
Use of EU and other funds	3	1	1	3	2	10
Activity of entrepreneurs	3	2	1	2	–	8
Bringing in an outside investor	1	–	–	3	1	5
Developing local innovation networks and clusters	–	1	–	1	2	4
Encouraging the emergence of new businesses	1	–	–	3	–	4
Expansion of technical infrastructure	1	–	–	1	1	3
Utilization of resources and environmental assets of a commune	1	1	–	1	–	3
Assistance provided by the local government in the development of existing enterprises	2	–	–	–	–	2
Supporting the development of business environment institutions	–	–	1	–	–	1
Assistance of an institution	–	1	–	–	–	1
Development of public-private partnerships	–	–	–	–	–	–
Pro-environmental investments	–	–	–	–	–	–

Source: own calculations based on research.

the development of cooperation for innovation with scientific institutions and the business environment (2), as well as establishing international contacts (1).

Among the key actions enhancing the innovativeness of districts, the surveyed representatives of the local authorities observed the activity of local actors in the use of external funds, including the European Union, as well as the attitudes and activity of representatives of the local economy. The importance of such activities as creating incentives for external investors, stimulating local entrepreneurship, and developing various forms of local co-operation was minor. Not contributing to an increase in the innovativeness of municipalities on a large scale were activities such as the development of technical infrastructure, activities focused on the utilization of resources and assets of the natural environment and its protection in local development, the involvement of local governments in the development of local enterprises, including public-private partnerships and concern for the development of business environment institutions and the use of institutional offers that can contribute to fostering local development processes (Tab. 3).

It should be noted that in the Pulawski district, more emphasis was placed on the importance of entrepreneurial activity and the support of local government in the development of existing enterprises. In the Bialski district, characterized by a lower development potential, local authorities recognized a need for entrepreneurial development which can be achieved through undertaking a number of activities such as bringing in an outside investor, stimulating the emergence of new businesses, and a greater concern for the development of local forms of cooperation for the enhancement of innovation. The authorities of urban communes have emphasized the use of EU and other funds, while the rural communes also emphasize the activity of entrepreneurs as an important factor.

The activity of local authorities for enhancing the innovativeness of the local economy and an evaluation of its importance in the innovativeness of the entrepreneurial enterprise

In most of the analyzed activities of the municipal authorities, the surveyed entrepreneurs assessed the assistance as low or very low. The highest marks were given to the activity of the authorities which focused on changing the functioning of the office and the communal economy. The representatives of the local economy perceived the constant improvement of the qualifications of the office employees as the only above-average activity of the local authorities. Measures, which aimed at increasing the innovativeness of IT solutions in the office and implementing modern technologies in the municipal economy, were evaluated relatively high when compared to other activities, but still they were

placed at a low level. There was also a limited scope of cooperation between local authorities and other territorial government units as well as insufficient participation in integrated projects implemented by various institutions important for their impact on the innovativeness of the local economy, including innovation centers, producer groups and LAGs. In the case of other activities, entrepreneurs indicated a low level of activity by local authorities.

The evaluation by entrepreneurs showed diversity between districts and the types of territorial units. Entrepreneurs from the Pulawski district noticed a much higher activity from municipal authorities in the examined areas. In the case of rural communes, the activity was related to improving the qualifications of the office employees and the implementation of modern IT solutions in the office. Whereas in the municipality of Pulawy, the respondents indicated the activity of local government was mainly participation in integrated projects implemented by innovation centers, producer groups, LAGs and others, improvement of the qualifications of the office employees, implementation of modern IT solutions in the office and cooperation with scientific institutions and the business environment. In the Bialski district, the majority of the local authorities' activity was rated as below average. Only in the case of urban communes of this district was higher activity observed in the application of advanced technologies in the municipal economy and the creation of relationships among self-government units. Evaluation by entrepreneurs confirms a much greater area of pro-innovation activities in the case of urban and urban-rural communes when compared to rural areas with regard to both of the surveyed districts (Tab. 4).

The surveyed entrepreneurs assessed most of the analyzed and feasible actions as important for strengthening the innovativeness of an enterprise. In particular, the respondents stressed the importance of preferences for innovation in the implemented actions aimed at the development of the commune's economy, local self-government's support for the promotion of local brands, popularizing knowledge about the possibilities of financing and supporting innovative projects, including cooperation networks (Tab. 5).

The efforts of the authorities to disseminate, in various forms, the knowledge of the possibilities of innovative activity and to undertake extensive cooperation with the various institutions involved undertaking more advanced innovative activities in local environments. This included academia and the business environment, innovation centers, group producers, and LAGs. Furthermore, developing public-private partnerships was acknowledged as being equally important. Among the activities which are of relatively small importance for strengthening the innovativeness of the local economic sphere in the light of the current studies are: concern of local authorities for pro-innovation changes in the functioning of municipal offices, including improving the qualifications of the office employees and the implementation of modern IT solutions as well as solutions used in the municipal economy. Entrepreneurs did not observe any association between the actions of local authorities and the development

Table 4

Evaluation* of activities by municipal authorities aimed at creating conditions for the development of the local entrepreneurial innovation system by district and type of territorial unit ($N = 147$)

Measures	Pulawski district						Bialski district				In total	
	rural communes		urban-rural communes		urban communes		rural communes		urban communes			
	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S
Raising the qualifications of the office employees	2.83	0.79	3.06	0.44	4.13	0.64	1.98	1.12	2.31	1.20	2.73	2.89
Implementation of modern IT solutions in the office	2.84	0.76	3.00	0.37	4.11	0.60	1.94	1.19	2.27	1.36	2.46	1.23
Application of advanced technologies in the municipal economy	2.15	0.82	2.68	0.72	3.50	0.71	1.88	0.98	2.47	1.17	2.30	1.03
Creating links between self-government units	2.07	0.83	2.73	0.59	3.17	0.41	1.89	1.10	2.50	1.25	2.26	1.09
Participation in integrated projects implemented by innovation centers, producer groups, LAGs and others	2.05	1.39	2.48	0.75	4.22	0.67	1.86	1.14	2.27	1.20	2.25	1.25
Development of public-private partnerships	1.65	0.93	2.55	0.76	3.13	0.35	1.83	1.02	2.27	1.23	2.09	1.06
Establishing international contacts	1.50	1.16	2.73	0.46	3.71	0.49	1.73	1.14	2.23	1.17	2.09	1.19
Cooperation with scientific institutions and the business environment	1.00	0.87	2.13	0.64	4.13	0.64	1.89	1.15	2.30	1.26	2.05	1.26
Supporting the promotion of local brands	1.37	1.04	2.57	1.41	2.42	0.90	1.92	1.10	2.27	1.20	2.04	1.21
Preference for innovation in the development direction implemented in the municipality	1.07	1.21	1.95	1.05	2.91	1.38	1.64	1.19	2.30	1.15	1.82	1.27
Creating websites / platforms for popularizing knowledge, and exchanging experiences on innovative business opportunities	1.24	0.87	1.95	1.02	2.54	1.13	1.68	1.10	2.20	1.35	1.82	1.16
Supporting innovative projects, including networking	1.00	0.98	1.55	0.91	2.50	1.38	1.80	1.03	2.23	1.22	1.75	1.16
Popularization of knowledge referring to funding opportunities for innovative projects	1.00	0.89	1.64	1.09	2.21	1.25	1.64	1.10	2.33	1.35	1.71	1.21
Dissemination of knowledge about the benefits of cooperation	0.90	0.86	1.67	0.91	2.08	0.86	1.64	1.22	2.33	1.32	1.68	1.20

* Evaluation was made on a scale from 0 to 5, where 0 stands for no activity and 5 for very high activity.
Source: own calculations based on research.

Table 5

Evaluation* of activities by municipal authorities aimed at strengthening the entrepreneurial innovativeness of the municipality by district and type of territorial unit ($N = 147$)

Measures	Pulawski district						Powiat bialski				In total	
	rural comunes		urban-rural communes		urban commune		rural communes		urban communes			
	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S
Preference of innovation in the development directions implemented in the municipality	4.10	0.61	4.13	0.81	4.23	0.73	2.02	1.32	3.43	5.58	3.27	2.81
Supporting the promotion of local brands	4.43	0.63	4.39	0.66	4.00	0.82	2.04	1.21	2.43	1.41	3.17	1.50
Popularization of knowledge referring to funding opportunities for innovative projects	4.31	0.54	4.57	0.59	4.62	0.65	1.88	1.22	2.43	1.33	3.15	1.57
Supporting innovative projects, including networking	4.10	0.76	4.57	0.73	4.62	0.65	1.94	1.08	2.50	1.31	3.15	1.50
Dissemination of knowledge referring to the benefits of cooperation	3.90	0.61	4.13	0.69	3.92	0.95	1.90	1.11	2.67	1.32	3.00	1.37
Creating websites / platforms for popularizing knowledge, and exchanging experiences on innovative business opportunities	3.93	0.52	4.17	0.65	4.15	0.55	1.92	1.24	2.43	1.22	2.99	1.40
Participation in integrated projects implemented by innovation centers, producer groups, LAGs and others	3.87	0.78	4.17	0.58	4.23	0.93	1.85	1.24	2.50	1.43	2.99	1.47
Cooperation with scientific institutions and business environment	3.07	1.08	3.74	1.14	3.85	1.28	1.92	1.16	2.53	1.33	2.75	1.38
Development of public-private partnerships	3.20	0.76	3.35	0.78	2.92	1.26	2.00	1.12	2.47	1.43	2.64	1.21
Raising the qualifications of the office employees	2.93	0.94	2.70	1.40	2.54	1.20	1.92	1.19	2.37	1.40	2.40	1.27
Application of advanced technologies in the municipal economy	2.60	0.67	2.48	0.90	2.15	0.80	1.82	1.10	2.50	1.36	2.25	1.08
Creating links between self-government units	2.27	0.83	2.43	0.99	1.85	0.80	1.80	1.19	2.47	1.36	2.15	1.12
Establishing international contacts	1.53	1.36	1.83	1.15	2.15	1.57	1.80	1.33	2.50	1.36	1.93	1.36
Implementation of modern IT solutions in the office	1.66	0.94	1.74	1.18	1.77	1.01	1.74	1.21	2.27	1.53	1.83	1.22

* Evaluation was made on a scale from 0 to 5, where 0 stands for no importance and 5 for great importance
Source: own calculations based on research.

of contacts among territorial self-government units, including national and international ones, and the creation of innovative possibilities in the sphere of the local economy (Tab. 5).

Summary

The activity of the surveyed local governments for the stimulation of local innovation resulting from the provisions of local innovation strategies, both in terms of creating conditions for the development of local innovation systems as well as strengthening the technological specialization of districts by fostering the innovativeness of local economic sectors, was undertaken on a small scale and with only a limited scope of measures. Nevertheless, local authorities are aware of the need to intensify the actions that are particularly important for the local economic sector. Such actions, indicated by the surveyed entrepreneurs, include: fostering innovation in the developmental direction of a community, supporting the promotion of local brands, popularizing knowledge about financing and supporting innovative projects; including the creation of cooperation networks.

Local governments are not sufficiently committed to activities that can play a more prominent role in enhancing local innovation. These include both innovation and co-operation activities, and provide direct support to companies developing innovative solutions. Moreover, local governments focus on the development of selected areas of the economy in an insufficient way. Tourism is the dominant industry, while the agri-food sector, the development of which could provide the municipalities with the opportunities for a broader revival of local economies and the use of local resources, is only supported to a limited extent

Local authorities appreciate the role of enterprises in developing the innovativeness of the municipalities and the external environment. However, this awareness should increasingly lead towards the emergence of common projects introducing new solutions and integrating local entities into cooperation. The municipal authorities should act as the integrators of such cooperation, and they should to a greater extent benefit from innovative cooperation opportunities between scientific institutions and the business environment. Moreover, they should establish international contacts.

The activity of local government authorities should focus to a greater extent on supporting the local entrepreneurship, using more advanced support and cooperation opportunities with the businesses – including public-private partnerships, business environment institutions, and cooperation with and the use of local innovation institutions.

The low self-evaluation of local government activity was consistent with the evaluation of the activity in the surveyed areas by the entrepreneurs. With regard to the opinions of respondents, the highest activity was undertaken by the authorities in the area of implementing the pro-innovation changes in the

municipal offices and in the municipal economy. The activity of local authorities channeled in such a manner is not sufficient with regard to the importance of all activities of the authorities to increase the innovativeness of enterprises. Entrepreneurs attributed the greatest importance towards fostering innovation in the development directions implemented in the communes, supporting the local authorities' promotion of local brands and to the popularization of knowledge; especially with regards to financing and supporting innovative projects. The hypothesis concerning the existence of an inconsistency between the activities of government authorities and the expectations of entrepreneurs, especially with regard to innovation in rural communes and districts threatened with stagnation was positively verified. Due to the limited capacity of the local governments of peripheral regions, it is important to systematically support their actions, which may contribute to greater innovativeness within local economies.

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CONSIDERATIONS OF POTENTIAL PROPOSALS TO CHANGE THE MODEL OF FINANCING EDUCATIONAL TASKS IN LOCAL GOVERNMENTS

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K e y w o r d s: finance, local government, education, considerations, change.

A b s t r a c t

The adopted system of financing educational tasks by local governments (LSGs), which allocates resources by reference to a funding formula 'per pupil', is no longer in tune with the changing socio-economic context of the development of Poland. The aim of this article is to identify the considerations which should be taken into account in the construction of a new model of funding school educational tasks by local governments. The study involved a desk based literature review and a ratio analysis of the financial condition of LSGs (indebtedness). The conducted analyses imply that the following issues need to be addressed: guaranteed financial independence of the local government as the governing body for educational institutions; transition from the 'per pupil' to 'per class' formula in allocating public resources; and guaranteed adequacy of public fund transfers for changes resulting from educational system reforms. If the above-mentioned conditions addressing financial, legal, demographic and political contexts are taken into consideration, the changes to the model of financing educational tasks will have a systemic character.

UWARUNKOWANIA ZMIANY MODELU FINANSOWANIA ZADAŃ OŚWIATOWYCH W JEDNOSTKACH SAMORZĄDU TERYTORIALNEGO

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S ł o w a k l u c z o w e: finanse, samorząd, oświata, uwarunkowania, zmiana.

Abstrakt

Przyjęty system finansowania zadań oświatowych w jednostkach samorządu terytorialnego (JST) z uwzględnieniem przelicznika na ucznia coraz bardziej nie przystaje do zmieniających się uwarunkowań społeczno-gospodarczych rozwoju Polski. Celem artykułu jest określenie uwarunkowań zmiany modelu finansowania zadań oświatowych w JST. Zastosowano metodę analizy literatury przedmiotu oraz analizę wskaźnikową kondycji finansowej JST (skala zadłużenia). Wyniki analiz wskazują na konieczność: uwzględnienia gwarancji samodzielności finansowej jednostki samorządu terytorialnego jako organu prowadzącego dla placówek oświatowych, przejścia z przelicznika środków publicznych na ucznia na rzecz przelicznika na oddział szkolny, gwarancji adekwatności transferów środków publicznych do zmian wynikających z oświatowych reform ustrojowych. Uwarunkowania natury: finansowo-prawnej, demograficznej i politycznej umożliwią przygotowanie zmian finansowania zadań oświatowych w układzie systemowym.

Introduction

The market mechanism does not meet collective needs. It either fails or is ineffective (see MUSGRAVE, MUSGRAVE 1989, p. 7). For this reason, an administrative mechanism for meeting collective needs is used, and public finance (OWSIAK 2017, p. 99) is an essential component of this mechanism. Tasks carried out by local governments (LSGs) are prescribed to meet collective needs and funded within the framework of the public finance system. Education provision belongs to one of four principal categories of these tasks as classified in the literature on the subject (NIEWIADOMSKI 2001, p. 60). Local governments should be provided with stable funding for educational tasks, adequate to the extent of these tasks and the scale of responsibility for the development of local educational policies. In accordance to the European Charter on Local Government, the financial resources of local authorities shall be commensurate with the responsibilities provided for by the constitution and the law and should enable them to keep pace with the real evolution of the cost of carrying out their tasks (DzU z 1994 r., nr 124, poz. 607). The main source of financing these tasks in Poland is the school education component of the general subvention. The transfer of the subvention resources should take into account the scope of LSG responsibilities, including the standard and cost of their implementation, while at the same time the funding should stimulate the development of a rational network of schools and educational institutions. In fact, the school education subvention does not provide most of the LSGs with sufficient resources to cover the necessary fixed costs (such as labour or materials), not to mention funding for development and investment. Year-over-year expenditure on educational tasks incurred by urban and rural communes significantly exceeds the amount of subvention funding they receive. Only in 2016 did the expenses incurred by local governments on educational tasks exceed the amount of subvention funding by 26.9%. In the case of cities, the gap is even bigger, (e.g. 41.6% in cities with over 5,000 inhabitants and 37.8% in cities with a district status of over 100 thousand inhabitants). Local

governments oppose being held financially liable for underestimated transfers from the state budget, especially since their own tax revenue per capita varies significantly[1]. It is therefore necessary to change the rules of financing educational tasks carried out by local governments. The current system of financing the education provision by LSGs uses a funding formula (algorithm) based on a financial standard known as "standard A". This is a 'per pupil' standard used to redistribute the school education component of the general subvention, and is increasingly incompatible with the changing social and economic context of the development of Poland. Failure to address this issue will result in an increased financial burden on local governments caused by underestimated school funding transferred from the state budget.

Addressing this issue seems to be important for at least two reasons. Firstly, by proposing alternative solutions in financing educational tasks we could attempt to reach an undervalued output of the scientific discipline of finance, which developed practical applications borrowed from other fields and disciplines of science. There are possibilities offered by financial mathematics (PODGÓRSKA, KLIMKOWSKA 2013, p. 10), legal sciences, sociology, psychology, other social sciences, and finally the technological sciences (SZAMBELAŃCZYK 2014, p. 112). Secondly, the changes proposed in 2017 by the Ministry of National Education are merely internal changes to the current component of school education in the general subvention[2]. As a result, they have only brought to light the diverse interests of local governments regarding the calculation of school grants. Consequently, the energy and time of many stakeholder groups interested in more systemic changes to the school funding model is being wasted.

Materials and Research Method

The aim of this article is to review the considerations which should be taken into account in the discussion of systemic change to the educational tasks funding model. These considerations should include:

– financial and legal considerations, as they are related to the assessment of the financial condition of local governments, (being the governing bodies for most educational institutions in Poland), which constitute an important segment of the public finance system;

[1] The ranking of communes (Ranking Gmin) 2017 based on tax per capita income (G ratio for 2015) shows that the income of the richest commune in Poland, Kleszczów (34,825.79 PLN), is more than 80 times higher than the income of the poorest local government – Radgoszcz (424.77 PLN).

2 The Ministry proposed that the relationship between the constituents determining the amount of the school education subvention was as follows: for communes – basic class weight (on average 69 thousand PLN), rural class weight (on average 17 thousand PLN) and new financial standard A per pupil (on average 2.35 thousand per pupil).

– demographic considerations, as the cost of publicly funded services strongly depend on the number of beneficiaries;

– political considerations, as any change of government may involve a change in the system of education. Due to the parliamentary election cycle, these changes may not be lasting.

This study involves a review of the literature in the field of public finance and economic education, as well as an analysis of the financial condition of local governments (with a focus on their indebtedness). The analyzed period covers the years 2000–2017 with a forecast through 2018. The analyzed period of time is representative for the retrospective assessment as well as forecasts regarding the proposals for changes in the school funding model.

Financial and Legal Considerations for the Change to a School Education Funding Model

The new model of financing educational tasks should be integrated into the system of guaranteed financial discretion within an LSG's own jurisdiction. This system is most often identified with an LSG's discretion regarding their income and expenditure. To guarantee their discretion regarding income, local government units should be entitled to:

– adequate, stable financial resources of their own and a certain degree of authority to create their income;

– LSG owned property that will not only be a source of income, but can also be used as collateral for future loans;

– legally guaranteed access to financial markets;

– power to act on the basis of a self-approved annual budget.

On the other hand, the discretion regarding expenses is determined by:

– the type of tasks carried out by the local authorities (the more mandatory tasks, the more limited freedom to dispose of resources);

– legal regulations concerning the manner of performing public tasks within the LSG jurisdiction;

– the scope of mandatory expenditures (earmarked for specific projects, 'rigid' expenditures), that must be financed from the budget of a local government;

– level of LSG income and income deriving from equalization procedures enabling the financing of tasks (Surówka 2013, p. 24, 26).

The local authorities' discretion can be limited by the law, which sets the framework for operations of local governments (Krawczyk 2016, p. 50). The current system of financing educational tasks, with the dominant source of funding being the state budget, transfers a high share of mandatory 'rigid' expenditure and constrains the financial discretion of an LSG. Moreover, not only are educational grants underestimated, but also the possibility of acquiring the missing capital by local authorities is limited by numerous legislative restrictions.

For example, the needed financial resources can be supplemented by the revenue of local authorities. The revenue comes from four sources: local taxes, property, the share in state taxes and resources other than grants earmarked for a specific goal or general subvention (GUZIEJEWSKA 2008, p. 38). When it comes to public finance, the regime for resource management is constitutionally reserved in the law. Therefore, LSGs do not have the right to freely acquire financial resources in order to finance educational tasks. Local authorities only have the power to modify the existing instruments to the extent provided for by the law (e.g. grant relief, debt remission or set a lower rate) (*Finanse samorządowe* 2012, p. 252).

On the other hand, the possibility of acquiring the needed capital from external sources (by incurring financial liabilities) may create the illusion of an LSG's actual freedom in this regard. However, the debt limit of a local government is legally protected by the law on public finance (art. 243 ustawy o finansach publicznych z 27 sierpnia 2009 r., DzU z 2016 r., poz. 1870, 1948, 1984, 2260, z 2017 r., poz. 60, 191, 659). In accordance with article 243 (ustawy o finansach publicznych) the individual indebtedness ratio system makes the planned amount of liabilities (debt) dependent on the ability to repay those obligations. The credit worthiness is calculated with reference to the following formula:

$$\left(\frac{R+O}{D}\right)_n \leq \frac{1}{3}\cdot\left(\frac{Db_{n-1}+Sm_{n-1}-Wb_{n-1}}{D_{n-1}}+\frac{Db_{n-2}+Sm_{n-2}-Wb_{n-2}}{D_{n-2}}+\frac{Db_{n-3}+Sm_{n-3}-Wb_{n-3}}{D_{n-3}}\right)$$

Where the symbols stand for:

- R – total amount of repayments of loans and the redemption of securities issued for the purposes stated in art. 89 ust. 1 pkt 2–4 and art. 90 ustawy o finansach publicznych planned for the financial year,
- O – interest on loans and interest and discount on securities issued for the purposes of art. 89 ust. 1 i art. 90 ustawy o finansach publicznych, and the repayment of the amounts resulting from the granted sureties and guarantees planned for the financial year,
- D – total budget income for the financial year,
- Db – current income,
- Sm – income from the sale of property[3],
- Wb – current expenditure,
- *n* – financial year for which the relationship is established,
- *n*–1 – year preceding the financial year for which the relationship is established,
- *n*–2 – year preceding the financial year by two years,
- *n*–3 – year preceding the financial year by three years.

[3] The proposed draft law on public finance proposes that when calculating the indebtedness ratio, the proceeds from the sale of property should not be taken into account as an element enhancing debt repayment capacity. At present, the formula includes the planned income from the sale of property. This may lead to overestimated credit worthiness, especially if the property is deliberately overvalued.

Establishment of the above limit was aimed at disciplining and reducing the incurrence of debt obligations by LSGs where the burden of payment of liabilities would be too large (*Uchwała Regionalnej Izby Obrachunkowej* 2011, 2014). This was to be a specific criterion to monitor the financial situation of local governments (BARCZUK, ZIOŁA 2014). However, the goal set by the legislature has not been achieved (see Tab. 1).

Table 1

List of local governments not meeting the relationship expressed in art. 243 ustawy o finansach publicznych or in which the relationship between the left and right side of the ratio does not exceed 0.6 percentage points – data from the end of 2014

Type of relationship	Year of forecast			
	2015	2016	2017	2018
	number of self-government units			
Relationship was not met	41	59	49	14
Relationship was met at a level lower than 0.3 percentage points	268	405	349	159
Relationship was met at a level of 0.3–0.6 percentage points	125	189	223	100
Relationship was met at a level higher than 0.6 percentage points	2,365	2,146	2,178	2,526
Total (9 LGUs have not been included)	2,799	2,799	2,799	2,799

Source: based on *Niestandardowe instrumenty finansowania potrzeb budżetowych jednostek samorządu terytorialnego* (2016, p. 10).

Another attempt to maintain financial autonomy in the context of financing educational tasks may be the local authorities' use of non-standard debt instruments. These are commitments in the form of loan or credit agreements, although they are not included in the debt titles catalog for public sovereign debt. Their application is permitted by the Regulation of the Minister of Finance as of December 28, 2011 (w sprawie szczegółowego sposobu klasyfikacji tytułów dłużnych zaliczanych do państwowego długu publicznego DzU z 2011 r., nr 298, poz. 1767). This category of financial instruments includes: equity financing, saleback, leaseback, installment payments (*Niestandardowe*…. 2016, p. 31, 32), and/or subrogation (KLUZA 2015, p. 61). The calculations of the Regional Chambers of Audit (Regionalne Izby Obrachunkowe – RIO) presented in the 2016 report 'Non-standard instruments for financing the budgetary needs of local government units' show that total LSG liabilities amount to PLN 274.5 mln (including principal and derivative receivables connected with a given instrument, e.g. rental payments, interest, fees, lease payments, deposits on account of the repurchase, etc.). Regional Chambers of Audit identified a group of local governments, which were in danger of losing liquidity, or had lost liquidity. The analysis of data from the Multiannual Financial Perspective (WPF) aggregated from reports on meeting obligations – a statutory instrument of control

and monitoring debt (in force from 2014) – showed that in the years 2015–2018 hundreds of local government units will be unfit to incur new debt obligations in the form of loans, credits and securities. When formulating such opinions, Regional Chambers of Audit take into account the methodology of the Multi-annual Financial Perspective developed by the Ministry of Finance according to which the essence of the assumptions made in the development of this document should be based on how much money a local government has, and not how much they need (SOŁTYK, DĘBOWSKA-SOŁTYK 2016, p. 95). In the opinion of the Regional Chambers of Audit, it is necessary to extend the catalogue of debt titles by including unnamed contracts which generate effects equivalent to a loan or credit agreement.

In the search for missing capital to finance educational tasks, LSGs incur financial obligations in non-bank financial institutions i.e. shadow banks, thus exercising often poorly understood financial discretion. This happens despite the fact that the Minister of Finance stated clearly (ST8.4761.2.2016 z 22 kwietnia 2016 r.) that Polish law provides regulations that significantly limit the incurring of liabilities in shadow banks[4].

Failure to address these particular issues in the area of public finance law will prevent the development of a new model for the financing of educational tasks, which should reinforce the systemic nature of the connections between school education funding, local government finance and public finance.

Demographic Considerations in Changing the School Education Funding Model

Demographic considerations seem to be an obvious criterion to be taken into account when determining the amount of public funding transfers to school education. In the traditional approach, costs are calculated with reference to the number of service recipients. However, in the case of the provision and funding of educational tasks, at least two factors subvert this traditional approach to the demographically based cost calculation:

1. In the algorithm of the redistribution of the school education component of the general subvention, the costs are calculated 'per pupil'. The starting point is the so-called 'financial standard A', which is the amount of funding that the local

[4] The regulations referred to include:

a) the principle of effective management of public funds expressed in art. 44 of the Public Finance Act (art. 44 ustawy o finansach publicznych). Therefore, taking out debt obligations and disbursing funds to service debts incurred in shadow banks should respect the abovementioned principle.

b) the obligation of the local government to obtain the opinion of a Regional Chamber of Audit (Regionalna Izba Obrachunkowa) regarding the possibility of repaying a loan in a shadow bank referred to in art. 91 of the Public Finance Act (art. 91 ustawy o finansach publicznych).

government receives for each pupil. It is modified by a weight system whereby the amount per pupil increases depending on the type of school or pupil's special educational needs (SEN) e.g. needs related to their disabilities. Therefore, it is the pupil who attracts funding while the actual cost is generated by a school class. Consequently, in the situation of demographic decline, all funding calculated 'per pupil' translates into lower income received by local governments, while the amount of expenses on the provision of education remains unchanged. The decline in the number of students, for example, does not automatically translate into the reduction in teacher jobs which generate payroll costs.

2. Local governments as the governing bodies of schools providing educational services under compulsory education cannot directly influence the number of recipients of their services. The demographic data from the Central Statistical Office shows that for a quarter of a century Poland has suffered a birth decline – a low birth rate that does not guarantee simple generational replacement. In January 2015 the total fertility rate (TFR) was 1.29, which means that there were 129 births per 100 women in childbearing age (15–49 years), (in cities – 124, in the countryside – 135). Since the 1990s, the total fertility rate has been below 2, while the total fertility rate which ensures to sustain population levels is 2.12; 2.15, (i.e. when in a given year 100 women aged 15–49 have an average of 210 to 215 live births).

This means that the relationship of fixed costs connected with carrying out educational tasks to the calculation of funding based on the 'per pupil' formula is increasingly unfavorable for local governments. Therefore, the analysis of demographic considerations with regards to the school education funding model should inspire the transition from a 'per pupil' to a 'per class' calculation. This would require social consent to determine the number of pupils in a class depending on the type of educational institution in order to determine the amount of financial resources.

Political Considerations in Changing the School Education Funding Model

The new model of funding educational tasks should also take into account the political context as it involves the governing elites expressing their will and other groups of stakeholders – e.g. local governments – being responsible for implementing this. This is especially important when political decisions involve, for example, changes in the system of education. If the reform of the school system involves phasing out a certain type of school, an indispensable part of such a political decision should be to ensure that the school governing bodies are provided with sufficient financial support to cover severance payments for teachers released from phased-out schools. Such financial security has not been provided in the case of the new law on education introduced in Poland in December

2016 – Prawo oświatowe (DzU z 2017 r., poz. 59) and Przepisy wprowadzające ustawę Prawo oświatowe (DzU z 2017 r., poz. 60). The introduced changes include, among others, the phasing out of lower secondary schools (gimnazjum). This type of school will disappear from the Polish system of education starting from 1 September 2019. Local authorities had every right to expect that the formula for redistributing the school education component of the general subvention, which is a transfer of funding from the state budget to local budgets, will provide resources to cover the cost of teacher redundancies resulting from the reform of the school system. However, the Ministry of National Education has denied the fact that the reform will lead to teacher job losses. Hence, the schools funding formula (algorithm) does not include any element responsible for calculating funds for this purpose. The scale of the local authorities' financial responsibility in this area can be illustrated with the employment figures in lower secondary schools. In the school year 2016/2017, all lower secondary schools employed circa 100 thousand teachers. It should be noted that the new Education Act provides that lower secondary school teachers, (employed by appointment or with an unlimited contract of employment), will be granted an 'inactive status' if their further employment in the school year 2017/2018 is not possible due to organizational changes resulting from the school system reform. Teachers who have been granted the 'inactive status' will receive a salary. Teachers' remuneration falls in four categories:

– remaining within the competence of the minister responsible for education;

– directly deriving from Karta Nauczyciela (Teachers' Charter) or other general regulations;

– remaining within the competence of local governments;

– social welfare payments and benefits (Klawenek 2012, p. 21).

Moreover, the school governing bodies have little influence on teacher salaries because:

– minimum base pay rates are within the competence of the minister responsible for education;

– other components of pay result from the provisions of the Karta Nauczyciela and other regulations and are mandatory for local government units. Failure to pay them may lead to court proceedings in the labor court. They include: I: supplements for difficult working conditions, seniority, night work and special supplements, II. Additional annual salary, III. Severance pay: retirement/disability pension and exit pay, IV. Jubilee award, V. Settlement benefit, VI. Remuneration for work on a public holiday, VII. One-time monetary gratification for obtaining the title of honorary professor of education;

– payment of benefits and social allowances increase the cost of teacher employment, (they include: housing, rural, holiday allowance and benefits from the social fund). Although these payments are not a component of a teacher's salary according to the Karta Nauczyciela (*Finansowanie oświaty* 2012, p. 59, 60), local authorities are obliged to pay them as provided by the law.

The LSG regulations only cover the remuneration components related to the payment of the following supplements: functional, incentive, work conditions, overtime and awards from a special prize fund.

The above-mentioned teachers who have been granted an 'inactive status' are entitled to a salary paid by the local government for 6 months (LISOWSKI 2012, p. 184). This is a hidden cost of reform for local authorities, because communes [gminas], acting as the governing bodies for lower secondary schools, will have to pay these salaries to teachers despite the fact that no resources from the state budget have been secured for this purpose. The cost of meeting this obligation calculated on the basis of the main component of teacher salaries – the base pay, is shown in Table 2.

Table 2

The amount of 6-month severance payment paid to teachers with 'inactive status' – based solely on the base pay schedule according to professional promotion grades [PLN]

Qualifications	Teachers' professional promotion grades			
	trainee teacher	contract teacher	appointed teacher	chartered teacher
Master's degree with pedagogical training	13,764	14,166	16,086	18,894
Master's degree without pedagogical training, Bachelor's degree (Bachelor of Engineering) with pedagogical training	12,114	12,414	14,016	16,452
Bachelor's degree (Bachelor of Engineering) without pedagogical training, graduates of teacher training colleges and foreign language teacher training colleges	10,692	10,950	12,300	14,382
Other qualifications	9,198	9,408	10,476	12,192

Source: minimum teacher base pay schedule effective from 1 January 2017.

It should be emphasized that the political context of the school system transformation also has financial implications in the area of the labor market, i.e. the potential threat of rising unemployment. Teachers from phased out schools who will not get a job as teachers in other schools or in other sectors of the economy, will expect cash transfers eligible to the unemployed. Another potential group of unemployed teachers include those teachers who are currently employed on fixed term contracts (mostly young teachers) who are not eligible for the 'inactive status'.

Lack of financial coverage for these types of liabilities can produce high social costs for the centrally planned school system reform, especially at the local level responsible for implementing these changes. This may lead to an increase in the antagonism between the central administration and local authorities, especially as the costs of the school system reform are also generated by other provisions of the new law, (e.g. to provide education in accordance with the new curriculum the newly established 8-year primary schools will need science laboratories).

Political changes in every area of a citizen's life, including the field of education, generate implementation costs. However, when there are no effective financial procedures to equalize local government revenues and when state budget transfers account for a major share of the local authorities' revenue, the central authorities should allocate sufficient resources (in the form of reserves or subsidies) for the increased local government expenditure in the discussed area. Information about these guarantees should be provided to local authorities prior to the date of school reform implementation.

Conclusions

The systemic transformation of the school education funding model should address the following issues:

– guaranteed financial independence of the local government as the governing body for educational institutions;

– transition from the 'per pupil' to 'per class' formula in calculating public resources;

– adequacy of public fund transfers to changes resulting from educational system reforms.

The conclusions mentioned above derive from the analysis of three dimensions: finance and law, demography and politics. The inclusion of all of these dimensions emphasizes the fact that the system of financing educational tasks should be analyzed as a sub-component of the public finance system. The details of the systemic solutions taking into account the abovementioned considerations should be worked out by representatives of the following groups of stakeholders:

– government administration (e.g. change of regulations in order to prevent local governments from using funds from subsidies to make deposits);

– local government administration (e.g. change in the amount of subvention to secure funding for 100% of teacher salaries resulting from the implementation of centrally-set curricula);

– citizens (civic projects initiated by legal acts);

– scientific community (e.g. proposals of school funding solutions including the allocation, redistribution and motivation functions fitting within the framework of a knowledge-based economy – see KOWALSKA 2010).

A chance to implement the abovementioned recommendations with regards to changes to the model of financing educational tasks may be provided by new legislation in this area, i.e. ustawy z 27 października 2017 r. o finansowaniu zadań oświatowych (DzU z 2017 r., poz. 2203).

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LOCATION FACTORS OF FOREIGN DIRECT INVESTMENT: A REGIONAL PERSPECTIVE

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K e y w o r d s: foreign direct investment, FDI, location factors, regional development.

A b s t r a c t

The following article presents the results of three research projects on foreign direct investment (FDI) in the Kujawsko-Pomorskie Province. They have been conducted by the Nicolaus Copernicus University team in 2003–2004, 2011–2012 and 2014–2016 respectively. The research was carried out using the same research method and covered both local authorities and enterprises with foreign capital operating in the province. The results of these studies allowed the authors to compare the assessments of FDI location factors among both groups of respondents as well as to identify potential changes in their perception over time and to confront these conclusions with the results of other research studies carried out in several other Polish provinces.

CZYNNIKI LOKALIZACJI BEZPOŚREDNICH INWESTYCJI ZAGRANICZNYCH – PERSPEKTYWA REGIONALNA

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S ł o w a k l u c z o w e: bezpośrednie inwestycje zagraniczne, BIZ, czynniki lokalizacyjne, rozwój regionalny.

A b s t r a k t

W artykule zaprezentowano wyniki trzech projektów badawczych dotyczących bezpośrednich inwestycji zagranicznych (BIZ) w województwie kujawsko-pomorskim. Zrealizował je zespół Uniwersytetu Mikołaja Kopernika, odpowiednio w latach 2003–2004, 2011–2012, 2014–2016. Badania przeprowadzono na podstawie identycznej metody badawczej. Zakresem objęły jednocześnie

jednostki samorządu terytorialnego województwa oraz zlokalizowane na jego terenie przedsiębiorstwa z udziałem kapitału zagranicznego. Wyniki tych badań pozwoliły na porównanie ocen czynników lokalizacji BIZ w obu grupach respondentów, wskazanie potencjalnych zmian ich postrzegania w czasie, a także skonfrontowanie sformułowanych wniosków z wynikami badań przeprowadzonych w kilku innych województwach Polski.

Introduction

Regardless of the level of territorial divisions under consideration – national, regional or local – socio-economic development seems to be inseparable from the development of entrepreneurship. Virtually all key areas of improvement of people's living conditions depend in the long run on the success of entrepreneurial activity undertaken and conducted at a specific place and time. It is their location that fundamentally determines the chances of specific communities for the expected participation in the benefits of international division of labour. That in turn results in genuine efforts on the part of local authorities acting on behalf and in the interests of the sovereign to secure specific economic activity in a particular area. It also gives rise to competition in the race for capital and investors, in which not only whole countries participate but also their individual regions. The capital is raised not only from a given country but also from abroad (in the form of foreign direct investment – FDI), which is particularly justified for developing economies and can be characterised by increased investment needs (disproportionate to their ability to fund them solely from their own savings) (DEMIRHAM, MASCA 2008, p. 356). In such circumstances, there is a legitimate need to create a suitable offer promoting all the location factors, so potential investors are encouraged to begin business activity in their country or region.

It should be noted that the choice of a country/region for an FDI location is influenced by many factors making the question of their determinants even more complex and multidimensional (ATHUKORALA 2009, p. 365–408, MOTTALEB, KALIRAJAN 2010, p. 2). A foundation for the analysis of FDI location factors can be found in the following classification, which puts them in three groups (DUNNING 2006, p. 206, UNCTAD 1998, p. 91). The first group is made up of institutional and legal factors including taxation and trade policies, policies on functioning and structure of markets as well as economic, political and social stability. The next group are economic determinants that can be divided into resource, market, efficiency and strategic asset seeking investment. The last group is made up of business facilitation factors that lie within the competence of host countries and regions including investment promotion, investment incentives and social amenities (Table 1). Among these groups, economic factors play, according to research, a key role in the FDI decision-making process, of which market factors are often said to be the most important ones (WILSON 1990, p. 29, DEMIRBAG et al. 1995, p. 35–51, TATOGLU, GLAISER 1998, p. 214, KARASZEWSKI 2001,

p. 274, 280, JOHANSON 2006, p. 17, BITZENIS 2007, p. 83–111, JAWOREK 2013, p. 59–63, GORYNIA et al. 2015, p. 94, SHUKUROV 2016, p. 87).

It is worth emphasising that the significance of FDI determinants is also related to the degree of host country's economic development. In countries that have undergone a system transformation, efficiency factors associated with the costs of resources, including cheaper labour, turned out to be important (PAIZ 1998, p. 26–29, KARASZEWSKI 2001, p. 274, PAIiIZ 2005, p. 53). In addition to this, FDI motives are often related to their form. International acquisitions are often dictated by the intention to acquire or gain access to strategic assets (BLONINGEN 1997, p. 450–451, KOGUT, CHANG 1991, p. 411).

Table 1

Classification of FDI location determinants

<table>
<tr><td colspan="4">An institutional and legal framework
• Economic, political and social stability
• Rules regarding market entry and operations
• Standards of treatment of foreign affiliates
• Privatisation policy
• Policies on functioning and structure of markets (competition and M&A policies)
• Trade policy (tariffs, etc.) and taxation policy</td></tr>
<tr><td colspan="4">Business facilitation
• Investment promotion
• Entrepreneurial incentives
• Investment incentives
• Protection of intellectual property rights
• Social capital
• Good institutional infrastructure and support (banking, legal, accountancy)
• Non-business expenses (e.g. corruption costs)
• Social amenities (quality of life, bilingual schools, free time activities)
• Pre- and post-investment services</td></tr>
<tr><td colspan="4">Economic determinants</td></tr>
<tr><td>Market seeking (A)
• Market size and per capita GDP
• Market growth
• Access to regional and global markets
• Country specific consumer preferences
• Structure of markets</td><td>Resource seeking (B)
• Raw materials
• Unskilled labour
• Skilled labour
• Strategic assets (e.g. brand)
• Physical infrastructure (ports, roads, telecommunications)</td><td>Efficiency seeking (C)
• Cost of resources and capabilities listed under B adjusted for productivity of labour inputs
• Other input costs, e.g. transport and communication costs to, from and within the host country
• Membership of a regional integration agreement conducive to promoting networking</td><td>Strategic asset seeking (D)
• Quality of technological, managerial and other assets
• Physical infrastructure (ports, roads, power grids, telecommunications)
• Mindset of the institutions, policies oriented towards economic growth/ development</td></tr>
</table>

Source: based on UNCTAD 1998, p. 91, DUNNING 2006, p. 206.

All three conditions listed below must be met in order for an investor to undertake foreign investment. First of all, the investor must have specific ownership advantages (related to non-standard factors of production). Second, these advantages must be compatible with the location advantages of the host country/region and, third, they should be used by the investor directly and not made available to other enterprises – the so-called internalisation advantage (DUNNING 1981, p. 79, DUNNING 1993, p. 56, MARKUSEN 1995, p. 173, 174, DUNNING 2001, p. 176, DUNNING 2003, p. 4, DUNNING, LUNDAN 2008, p. 99, 100). While ownership and internalisation advantages determine FDI at company level (firm-specific determinants of FDI), location advantages have a significant impact on capital flow to the host country/region and are directly dependent on the host country government policy. Countries/regions which offer foreign entrepreneurs what they are seeking while eliminating barriers to entrepreneurship provide real opportunities for FDI inflows. Foreign investors are looking for locations in which the investment climate is most favourable. The climate encompasses all aspects that are taken into account in the decision-making process: political, social and economic (PIKE, DOBBINS 1981, p. 14, DOLLAR et al. 2005, p. 1, LIZIŃSKA 2012, p. 15–24). It should be noted that companies perceive location factors in interaction with their ownership and internalisation advantages as well as their corporate strategy. The same motives and their corresponding location factors of the host region may have a different meaning for different strategies. That is why countries/regions receiving FDI must understand not only foreign investors' needs and motives but also their strategies (UNCTAD 1998, p. 90, 91) and should try to work towards them (JAWOREK et al. 2016, p. 122).

It must be pointed out that in terms of FDI location, various factors can motivate investors at a country and regional level. The importance of these factors can be attributed to the step-by-step (sequencing) decision-making process in regard to the location choice. First a particular country is analysed. Then the investor looks for an optimal location within that country (JAWOREK et al. 2016, p. 123, 124, WOJTASIEWICZ et al. 2006, p. 31). In the first step, local authorities have little influence over the majority of key factors determining FDI. National determinants are decisive at this stage. Research shows that it is only in the second stage – when making the choice of a particular region – that location-related factors, such as favourable geographical location within that country or the qualifications of the local workforce, become more important (WOJTASIEWICZ et al. 2006, p. 31, BŁUSZKOWSKI, GARLICKI 2003, RÓŻAŃSKI 2010, p. 165). At this stage, local authorities can fundamentally influence investors' decisions. To this end, they must, first of all, create the most favourable conditions for the development of entrepreneurship and give them suitable exposure. One helpful tool may be promotional campaigns, which are considered to be a factor in business facilitation (Tab. 1). They allow dissemination of information about the local market, which may influence the region's attractiveness as the place for setting up business (WELLS, WINT 2000, p. 21). Promotional activities can be divided

into four groups. The first group aims to strengthen the image of a region that is an attractive location (image-building). The second type of activities is related to the direct generation of investment that results in new projects within specific sectors of the economy (investment-generating). The third group is designed to provide services to current and potential investors (investment-servicing). Last, but not least, is the support policy, which is aimed at improving the investment environment (policy-advocacy) (WELLS, WINT 2000, p. 21, MORISSET 2003, p. 22). In addition, the role of investment promotion is to improve coordination between foreign and local enterprises. It plays an important role in matching foreign companies with potential local suppliers (CHARLTON, DAVIS 2007, p. 2).

However, before defining the nature of promotional policy and choosing measures aimed at strengthening the region's attractiveness, it is important to recognise both a region's features that encourage investment in a given area and their perception as well as their assessment by company representatives. Hence, the main purpose of the paper is the identification of FDI location factors in the Kujawsko-Pomorskie Province as well as recognition of their changes over time.

Research methodology

The following article presents the results of three research projects conducted by a team of the Nicolaus Copernicus University in Toruń under the supervision of Włodzimierz Karaszewski among local authorities and enterprises with foreign capital located in the Kujawsko-Pomorskie Province. The research was carried out in 2003–2004 (*Bezpośrednie inwestycje...* 2005), 2011–2012 (*Bezpośrednie inwestycje...* 2012) and 2014–2016 (*Bezpośrednie inwestycje...* 2016) using the same research method and tools. The postal survey method was the primary one used, supplementing the traditional dispatch of letters and questionnaires with a series of follow-up phone calls, e-mail communication and visits to the companies participating in the research. It is worth noting that the last research was part of a broader interregional project called "Foreign Direct Investment in Selected Polish Provinces – a Comparative Analysis", which was carried out in collaboration with the University of Łódź, the University of Warmia and Mazury in Olsztyn and the University of Life Sciences in Poznań. It covered the following provinces: Łódzkie, Warmińsko-Mazurskie and Wielkopolskie as well as the Kujawsko-Pomorskie Province.

The research team's intention was to identify factors that encourage and discourage foreign direct investment in the Kujawsko-Pomorskie Province. The comparison of assessments of FDI location factors made both by representatives of local authorities and by the companies with foreign capital located in the province has enabled the authors to reassess the perception of the region's characteristics from the perspective of its present and future investment

attractiveness. The team has made efforts to obtain the widest possible empirical data. That is why the research has covered all the local authorities and all active enterprises with foreign capital registered in the province (i.e. enterprises listed in the Registry of National Economy Organisations – REGON, excluding those that applied for a registration number but did not make an entry in the National Court Register – KRS, ceased to operate and those whom it was not possible to contact). The response rate among local authorities was high (Tab. 2), which together with their structural consistency makes these results representative and, consequently, justifies the comparison over time. With regard to enterprises, the response rate was significantly lower (Tab. 2). Therefore, the results of this part of the research are primarily for information and act as a point of reference for the assessments presented by the region's local authorities. Adding a few more provinces to the latest research project has created a unique opportunity to confront these results with the experience in other Polish provinces.

Table 2

The number of local authorities and enterprises with foreign capital located in the Kujawsko-Pomorskie Province that participated in the research

Specification	Number of participants:		
	2003–2004	2011–2012	2014–2016
Local authorities	71	115	96
Response rate [%]	43.6	70.6	66.7
Enterprises	70	54	76
Response rate [%]	10.6	5.4	15.8

Source: compiled by the authors on the basis of: *Bezpośrednie inwestycje…* 2005, p. 33–45; *Bezpośrednie inwestycje…* 2012, p. 14–16; *Bezpośrednie inwestycje…* 2016, p. 19–22.

Research results

The results of the study carried out in the years 2014–2016 indicated that the local authorities of the Kujawsko-Pomorskie Province considered its favourable geographical location, providing convenient access to both domestic and European markets, to be the region's chief asset stimulating FDI inflow (86.3% responses) (Tab. 3). This factor was the only economic factor included in the group of five chief assets of the Kujawsko-Pomorskie Province (measured by the frequency of responses). The local authorities ranked business facilitation factors in the next four places. They included local authorities' attitude to investors and investment (76.8%), attractiveness to tourists (69.5%), service quality and efficiency in local government offices (62.1%) and the state of the environment (61.1%). On the other hand, among all the factors stimulating capital inflow

Table 3

Factors stimulating foreign direct investment in the Kujawsko-Pomorskie Province in the opinion of local authorities and companies with foreign capital (percentage of respondents indicating a variant of the answer)

Stimulating factors	Results of the research project carried out in:					
	2003–2004		2011–2012		2014–2016	
	local authorities	enter-prises	local authorities	enter-prises	local authorities	enter-prises
Economic factors						
Geographical location	64.8	80.0	53.9	88.2	86.3	83.6
Market absorption	9.9	–	7.8	12.0	26.3	11.0
Potential of the regional industry	12.7	–	–	12.0	25.3	12.3
Unemployment rate	49.3	–	33.9	–	45.3	31.5
State of transportation infrastructure	43.7	26.2	40.9	40.0	43.2	38.4
Skilled labour	23.9	75.4	20.0	67.3	34.7	46.6
Rent and lease prices	36.6	67.7	34.8	56.9	47.4	68.5
Property prices	50.7	66.2	50.4	66.7	52.6	67.1
Business environment	15.5	20.0	15.7	35.3	28.4	27.4
Opportunity to work with local companies	–	–	–	–	52.6	31.5
Institutional and legal factors						
The rule of law	8.5	–	18.3	16.0	33.7	17.8
Local taxation incentives	40.8	3.0	35.7	12.0	31.6	16.4
Business facilitation factors						
Attitude of local authorities to investors and investment	76.1	20.0	85.2	24.0	76.8	20.5
The attitude of the local community to investors and investment	49.3	20.0	47.8	24.0	53.7	34.2
Service quality and efficiency in the local government offices	56.3	14.0	69.6	16.0	62.1	17.8
Local authority activity to assist investors in establishing contacts and cooperation with business partners and business-related institutions	23.9	10.8	21.7	8.0	52.6	21.9
Access to research centres	8.5	33.8	5.2	30.0	30.5	17.8
Tourist attractiveness	46.5	47.7	45.2	24.0	69.5	21.9
The state of the environment	52.1	47.7	50.4	34.0	61.1	26.0

Source: compiled by the authors on the basis of: CZAPLEWSKI et al., p. 91, SZAŁUCKA, SZÓSTEK 2012, p. 84, JAWOREK et al. 2016, p. 128, 129.

to the province, local authorities attributed the least importance to the following economic factors: access to natural resources (23.2%), regional industry potential (25.3%), market absorption (26.3%) and business environment (28.4%). In the eyes of the local authorities, the Kujawsko-Pomorskie Province is a region with a favourable geographic location, a region that is attractive to tourists and a good environment in which the attitude to foreign investors of both the local authorities and the local community is favourable. According to the opinion of local authorities, their attitudes and the actions taken in terms of support provided to foreign investors are important assets of the Province, often much more important than a wide range of economic characteristics such as, for example, opportunities for cooperation with local businesses, real estate prices, rental prices, the unemployment rate or the state of transportation infrastructure.

A comparison of the responses obtained in the latest study with the results of the two previous studies shows some changes in the province's classification of factors shared by the local authorities. In the previous studies local authorities considered their attitude to investors and investment to be the region's most important factor encouraging investors to invest within it. In the 2011–2012 research project, the local authorities ranked service quality and efficiency in local government offices second, while the province's geographical location was ranked only third. In the first study, the order of these two responses was reversed – the province's geographic location ranked second and service quality and efficiency in local government offices ranked third. It is worth noting, however, that the respondents who took part in the two earlier projects highlighted the importance of yet another economic factor among five chief assets of the province – favourable real estate prices.

The aim of these research projects was not only to find out the views of the province's local authorities on the strengths of their own region but also to compare them with the assessments made by foreign investors who invested their capital in the province. Both the participating companies and the local authorities expressed the view that the chief asset of the Kujawsko-Pomorskie Province was its geographic location. It is worth pointing out, however, that, unlike the responses of the local authorities, this factor was ranked first in all the research projects. Unfortunately, further responses revealed obvious discrepancies in the responses among these two groups of respondents. The results of the research proved that entrepreneurs believed economic factors to be the main drivers of investment in the region. In addition to the already mentioned geographic location, investors attributed particular importance to factors affecting efficiency – cost of rent and lease, property prices and resource factors – skilled labour, the unemployment rate and the transportation infrastructure. On the other hand, business facilitation factors that were promoted by local authorities had, in the opinion of foreign investors, relatively little influence on the decision to allocate capital in the province.

Clear discrepancies in the opinions of foreign investors and local authorities can also be observed in regard to the changes in the perception of particular factors encouraging investment in the Kujawsko-Pomorskie region. Nearly all the factors that local authorities have considered increasingly important in stimulating foreign capital inflows have not changed at all in the opinion of the participating foreign investors. In fact, quite the opposite is the case – their impact has begun to diminish over time. Downward trends in the views of both groups of respondents were most clearly visible in the case of such regional characteristics as skilled labour, tourist attractiveness, the state of the environment and access to research centres. Among these factors, qualifications of potential employees are of particular importance to foreign investors. It is interesting that despite a sharp drop in the ratings of this factor by enterprises with foreign capital, the results of the survey indicated that it was ranked significantly higher by foreign investors than by local authorities (46.6% and 34.7% respectively in the latest research project). Its relatively low ratings were confirmed in a recent assessment of the state and the determinants of the Kujawsko-Pomorskie Province, in which some of the lowest levels of human and social capital (*Strategia rozwoju*... 2013, p. 6) have been identified among the basic weaknesses of the region, and in the reports prepared by the Institute for Market Economy Research, which focus on the low supply of human resources in the Kujawsko-Pomorskie region (*Atrakcyjność inwestycyjna*... 2009, p. 40, *Atrakcyjność inwestycyjna*... 2015, p. 40).

On the other hand, the remaining factors which, contrary to the opinion of foreign investors, the Kujawsko-Pomorskie Province local authorities consider to be of increasing importance in attracting capital, i.e. the attractiveness of tourism, the state of the environment and access to scientific and research centres, can hardly be defined as the dominant attributes of the region. A number of other Polish regions win the competition in the level of attractiveness of each of these factors, while the Kujawsko-Pomorskie Province ranks quite low in these classifications compared to the other regions (*Atrakcyjność inwestycyjna*... 2009, p. 51, *Atrakcyjność inwestycyjna* … 2015, p. 51, BĄK, MATLEGIEWICZ 2010, p. 65, 66, BĄK, SZCZECIŃSKA 2015, p. 13, *Informacja o stanie*… 2017, p. 41).

Despite many divergences in the ratings, which undoubtedly demonstrated the need to change the regional hosts' perception of the importance of factors impacting foreign capital inflow to the region, the results of the research indicated that foreign investors were giving higher rankings to such business facilitation factors as local authority activities to support establishing contacts and cooperation with trading partners and business-related institutions, service quality and efficiency in local government offices and the local community's attitude to investors and investment. It can be assumed that the direction of these changes demonstrates a growing involvement of local authorities in supporting current and potential investors, but it is important to note that such a set of assets will surely prove to be insufficient in competing for capital with the other regions.

Conclusions

In conclusion, the awareness of the region's strengths on the one hand and the investors' needs on the other should provide a solid basis for the preparation and subsequently the development of an offering that will enable local authorities to compete effectively in the battle for capital. Recognition by foreign direct investors of the location potential (including locally available raw materials, human capital, a regional market and the extent of regional integration) as a source of benefits brings opportunities for entrepreneurial development, which can result in improvement of living standards of the local community and, in the longer term, can lead to further positive developments. Unfortunately, the results of the research projects conducted by the Nicolaus Copernicus University team in the last few years indicate that for the factors being studied, the chances of these transformations in the Kujawsko-Pomorskie Province are limited due to the generally low level of awareness among local authorities as to the nature and importance of particular FDI location factors. Of course, this general picture is not uniform and the map of the province includes centres that provide the basis and tools for a conscious and systematic determination of directions for personal development, remaining open and sensitive to entrepreneurs' responses, but these centres are exceptions. It seems that the lack of recognition and understanding of business needs undermines the validity of the selection of activities aimed at strengthening regional strengths or promotion policy objectives at the very beginning of the planning process for any investment activity.

The results of the research also revealed that the importance of FDI location factors changes over time. This seems perfectly natural and it may be broadly related to Poland's social and economic development as well as geopolitical, social and economic changes in the world. Taking into consideration the above conclusions, the key fact is that the awareness of local authorities in regards to the direction of the changes in question also turned out to be low. Nearly all FDI location factors, which according to local authorities started to play a more important role in stimulating foreign capital inflow into the province, were regarded by foreign investors as equally or less important than in the previous editions of this research. This growing gap between the assessments made by both groups of respondents was most prominent among the following characteristics of the region: qualifications of the local workforce, tourist attractiveness, the state of the environment and access to research centres. The results of the research also showed that not all positive attributes of the region, such as attractiveness to tourism or the good state of the environment, will be important determinants of business location. The above conclusions, together with the "instability" of FDI location factors identified in the research, justify conducting reliable monitoring and continuous assessment of social and economic phenomena at a regional level as well as comparative analyses for other regions of Poland, Europe and the world. The results of these activities should form the foundation for confronting

perceptions with reality and ensuring a solid base for designing activities aimed at strengthening local and regional entrepreneurship.

Looking at the analysis of research results in selected Polish provinces, i.e. those covered by the research project carried out between 2014 and 2016, it can be said that, independently of the region, local authorities were more likely to point to the importance of soft factors (JAWOREK et al. 2016, p. 133, 134). They were activities resulting in particular from the involvement of local authority employees themselves such as the attitude of the local authorities to investors and investment, or service quality and efficiency in local government offices. Business representatives rated these factors more critically, taking them most likely for granted rather than considering them to be their region's special asset, even if they improve over time as noted in the Kujawsko-Pomorskie Province. This lack of awareness of the region's assets in the context of company expectations, in particular for foreign investors (the most convergent assessments were obtained in the Łódź and Warmińsko-Mazurskie Provinces), appears to be a problem of not just one particular region but it seems a more widespread issue. This makes it an area of great interest for research and analysis, but above all it leads to deeper reflection on the future and the adequacy of economic policy at a national, regional and local level.

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LOCAL ACTION GROUPS AS A NEW MARKETING ENTITY IN LOCAL GOVERNMENTS. A CASE STUDY FROM THE LUBELSKIE PROVINCE[1]

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A b s t r a c t

This paper defines the scope and tools used within the framework of a marketing function, particularly including communications by Local Action Groups (LAGs). The aim of the research was to determine the significance of LAGs in the creation of a territorial product and the range of Public Relation (PR) applications by LAGs in the marketing communication of municipalities. This was achieved by means of a literature review, desk research and the analysis of documents including those that directly regulate the functioning of all 22 LAGs from the Lubelskie Province during the 2014 to 2020 period. According to the research results, the marketing activities of LAGs constitute a combination of activity with respect to product development and PR, activity related to the creation/development of tourism products and their promotion. The marketing activity of LAGs is a synergistic reinforcement of the marketing activity conducted by individual local governments in the area of product development and shaping of the image. LAGs are an entity actively participating in PR. They also enhance the catalogue of PR tools used by the administration of rural municipalities.

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LOKALNE GRUPY DZIAŁANIA JAKO NOWY PODMIOT AKTYWNOŚCI MARKETINGOWEJ SAMORZĄDÓW GMINNYCH. PRZYKŁAD WOJEWÓDZTWA LUBELSKIEGO

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A b s t r a k t

W pracy określono zakres i narzędzia funkcji marketingowej, w tym szczególnie funkcji komunikacyjnej lokalnych grup działania (LGD). Celem badań było określenie znaczenia LGD w kreowaniu produktu terytorialnego oraz zakresu wykorzystania PR przez LGD w komunikacji marketingowej gmin. Cel zrealizowano dzięki przeglądowi literatury, desk research oraz analizie dokumentów, szczególnie dokumentów bezpośrednio regulujących w perspektywie 2014–2020 funkcjonowanie ogółu 22 LGD w województwie lubelskim. W świetle wyników badań działania marketingowe LGD stanowią połączenie aktywności w zakresie rozwoju produktu i PR, aktywności związanej z tworzeniem/rozwojem produktów turystycznych oraz ich promocją. Działalność marketingowa LGD jest wzmocnieniem synergicznym aktywności marketingowej pojedynczych samorządów w obszarze rozwoju produktu i kształtowania wizerunku. LGD stanowią podmiot aktywnie uczestniczący w PR, a w tym w event marketingu, wzbogacają katalog stosowanych przez urzędy gmin wiejskich narzędzi PR.

Introduction

Public policy and the role it plays in stimulating and targeting socio-economic development should lead to the creation of space for intensive social interactions. The pre-requisites for the success of development policy are: the inclusion of a wide array of stakeholders to its programming and implementation as well as the creation of a network for the coordination of development activities, which requires appropriate and coherent measures to be taken in the fields of: public communication, accessibility, freedom of information, local media, education, as well as the creation and animation of public space. In Poland, the intensity and effectiveness of activities taken by public authorities are oriented in a very weak way. Local government should receive systemic support in conducting development policy that uses endogenous potential. One of the elements of the support system is the practical application of the CLLD mechanism (Community-Led Local Development) which involves the creation of local development strategies and local partnership building (Local Action Groups) based on the experience of the LEADER approach (HAUSNER et al. 2013, p.102, 103). The complexity

of the processes taking place in the organization and its surroundings generates a need for interaction which exceeds the boundaries of that organization and even the boundaries of entire sectors. It is a circumstance for the development of cooperation between the municipal government and surrounding entities. Representative organizations in which municipal governments interact and cooperate with entities from outside this sector are Local Action Groups (LAGs). They are units dealing with the implementation of the LEADER initiative into life. Within this framework, the collaboration of three sectors takes place: public, private and non-government. The LEADER programme began in 1991. However, due to Polish social reality, LAGs appeared in 2004 after Polish accession to the EU. In Poland, LAGs are becoming the main partner for municipalities in terms of providing support for rural development. Local development strategies, which have been implemented by the LEADER groups, constitute an important source of support to ventures that have been undertaken in the rural municipalities; as well as to initiatives addressed to municipalities and other groups of residents (BRODZIŃSKI 2010).

This paper aims to identify the scope and tools of the marketing function, particularly including the communication of Local Action Groups (LAGs) as a new entity in the rural space. The aim of the study was to determine the significance of LAG marketing activities in the creation of a territorial product, and the range of PR applications by LAGs in the marketing communication of municipalities; as evidenced by the case of LAGs within the Lubelskie province.

Specific goals included:

– defining the importance of territorial marketing in the activities of local governments in rural communes;

– the characterization of marketing by local governments in rural communes within Poland;

– presenting examples of marketing activities of LAGs in Poland during the 2004–2013 period;

– the characterization of implemented and planned marketing activities of the studied LAGs in the financial framework of 2014–2020.

Materials and Methods

The aim was achieved with the use of literature analysis, document analysis and desk research. The analysis of documents included, among others, documents that directly regulate the functioning of all 22 LAGs from the Lublin region (LAG statutes, and Local Development Strategies of LAGs from 2014 to 2020, mostly including communication schemes). LAG websites were used as additional sources of information. The collected material was analyzed statistically by using descriptive statistics. Graphical data presentation was used.

Place Marketing in the Activity of Municipal Governments

In the search for the grounds of a marketing orientation of municipalities, a reference to KOTLER and LEVY (1969, p. 15) needs to be made. They define the concept of marketing as „a function of organization that can keep in constant touch with the organization's consumers, read their needs, develop "products" that meet these needs, and build a program of communications to express the organization's purposes". In accordance with the accepted assumptions, place marketing covers the same elements which are used in business marketing i.e. product development, price, distribution and communication. The entities to which the concept of place marketing relates include: territorial subdivisions and their unions, territorial units of particular socio-political, economic, environmental and tourist importance such as frontier zones, euroregions, national parks, as well as individual owners of territories (KAMIŃSKI 2012). The fundamental space for the development of place marketing remains the municipality, since that is where the local government authorities are closest to the residents.

When we think about "rural place marketing", it should be stressed that rural areas are more vulnerable than cities and metropolitan areas to changes in economic business cycles, affecting welfare, tourism and investments (ANDREOTTI, MINGIONE 2014, CAPELLO et al. 2015). As rural areas differ from cities and metropolitan areas, in terms of resources and vulnerability, it could be argued that these areas would benefit relatively more than cities and metropolitan areas from successful place marketing (DOMINGUEZ GARCIA et al. 2013, RAUHUT KOMPANIETS, RAUHUT 2015). This was stressed by RAUHUT KOMPANIETS, RAUHUT (2015, p. 9–11) who said "to place market a small rural town or a rural area thus requires: a clear strategy or plan, the target audience(s) must be identified as they can be assumed to be few and not so numerous, the unique selling points must be clear and well-articulated, and, finally, the agents to carry the good image of this place must be identified and they must be willing to be agents. Thus, the place marketing of a rural place requires significantly more effort to succeed, but is in no way impossible".

By undertaking marketing activities, a municipality will create a marketing concept of a product, and it will shape its price, organize its distribution and undertake promotion measures. Effectiveness and efficiency of applied tools of the marketing mix depend on the subject matter and on the aim of the actions as well as on the developmental determinants of the municipality. The highest efficiency of consumer impact lies in the product of a municipality. Price as an element of the product does not indicate a high effectiveness in marketing activities of municipalities due to their non-profit nature. Promotion is of particular importance while distribution is less significant (IWANKIEWICZ-RAK 1997). W. Kuźniar was correct when he wrote that even the best product will not

flourish on the market if the clients are not informed about its attractiveness and do not feel the urge to purchase it (KUŹNIAR 2012a).

Promotional activities are generally intended to serve as a starting point for further application of marketing in rural communes. Simultaneously, based on the experience of the functioning of local governments in rural communes, the marketing activities focused mainly on promotion. These local governments displayed a low level comprehensive approach towards marketing. What is more, the concept of marketing in local government offices was often equated to promotion (GUZAL-DEC 2009, PARKER et al. 2015).

In Poland, the actions of local governments with regard to promotional activities stems from the fact that promotion is assigned to each individual municipality (Ustawa z 8 marca 1990 r. o samorządzie terytorialnym, DzU z 1990 r., nr 16, poz. 95). In practice, and in a broad sense, promotion is addressed as being a communication policy between the organization and its environment (FLOREK, AUGUSTYN 2011). The marketing communication system, in the case of a territorial local government unit, includes a set of measures and major tools which are used to communicate with the local community, to promote its image and to provide the community with the information that characterizes its socio-economic profile. This includes its assets, attractions, achievements, objectives, justifications, as well as strategic and tactical decisions (BARCZAK 1999).

Analysis of the literature related to place marketing makes it possible to assume that the most crucially important for the promotion of Local Government Units (LGU) are activities related to public relations and advertising, while the remaining tools of the promotional mix are of less importance and are applied in a rather selective manner (NIEDZIELSKA 2011). The specific role of public relations stems from the fact that the scope of its addressees is much wider than the scope of recipients to whom advertising or other forms of promotion are addressed (CZORNIK 1998). In order to define public relations in the context of a tool that is used to promote LGU, it can be assumed that PR constitute "conscious, intended and long term actions aimed at creating a positive image of LGU through effective communication between local government authorities and the environment as well as by gaining trust and acceptance of the public for the initiative launched by them, which could lead to economic development and recovery" (FLOREK, AUGUSTYN 2011).

Considering the extent and character of the marketing actions of the municipal governments, it should be recalled that KOTLER (2004) said that one of the most important values for an organization is the partner relationship it has with the surroundings. For a municipality, partnership in internal as well as in external contacts will become an important priority for action. What is more, it will constitute a strategic development strategy (GUZAL-DEC 2009).

With respect to local authorities, public relations are the tool of partnership marketing implementation. PR involves the creation and maintenance of a two-way communication with the environment as well as the provision of information

concerning the authorities' actions and its advantages (POKRZYCKA 2006). Actions with regard to PR should be primarily focused on the maintenance of contacts with the media, giving publicity to the activities undertaken by local government, maintaining good relations with investors, neighboring municipalities, higher education institutions and other organizations; as well as on fostering positive relations with residents of the municipality. The above-mentioned actions can be achieved using the PR tools described by (NIEDZIELSKA 2011):

– events (outdoor events, commemorative events, contests, festivals), sponsorship, patronage of local government authorities over the selected cultural and sports events, etc.;

– establishing and maintaining good relations with the media, in particular with: the press (press releases, interviews, documentaries, press statements, press conferences, sponsored articles), television (documentaries concerning the development of LGU, videos), radio (documentaries, broadcasts, discussions with experts), using the Internet and social media networks in communication;

– own website, own publications (newsletters), publishing monographic elaborations and promotional movies concerning the LGU;

– symposia, seminars, conferences dedicated to e.g. local/regional development;

– developing a system of communication with the immediate and more distant environment;

– giving publicity to and explaining the development strategy of LGU and the policy of the local government board; disclosure of information on local spatial management plans;

– building partner relations with the investors and preparation of information and promotion materials, co-organization of or participation in fairs and exhibition events, maintaining regular contacts with institutions of economic promotion;

– organizing meetings between local authorities and representatives of opinion-building groups, conducting systematic opinion polls, especially among the residents;

– creating Citizens Requests and Complaints Bureaus, helplines;

– developing a visual identification system of an office and information system of the municipality;

– cooperating with partner towns, lobbying for the support and promotion of LGU interests at the supra-local level.

The activity of municipal governments that are targeted toward the promotion of the territory, in order to achieve synergy, should be supported by the actions of other entities either directly or indirectly, and should formally or informally deal with the promotion of LGU (KUŹNIAR 2012b). According to CZORNIK (1998), among such entities are: entities whose promotional activity stems from tasks that were imposed upon them; entities whose actions contribute to the promotion of the region and are oriented on attaining individual objectives; entities whose goals are to promote the region as an element that contributes to profit;

and finally entities whose promotional activities are not profit-oriented, but rather are an expression of „local patriotism". With regards to the municipality and at the local level, promotion activities are implemented by local associations, foundations, and municipal authorities. These actions are supported at the regional level through the activity of local and regional tourist organizations, local action groups (LAGs), or higher level authorities of territorial units, as well as authorities under their jurisdiction e.g. the Regional Agricultural Advisory Centers (KUŹNIAR 2012b).

Studies of the marketing activity as undertaken by Polish rural and rural-urban municipality offices (POKRZYCKA 2006, GUZAL-DEC 2009, GUZAL-DEC, ZWOLIŃSKA-LIGAJ 2011, POMIANEK 2011, KUŹNIAR 2012a, ANDRUSZKIEWICZ, SCHULZ 2016, SCHULZ, ANDRUSZKIEWICZ 2016) have so far indicated that:

– marketing activities were only occasionally subjected to strategic planning, and follow-up of the efficacy of the marketing tools used was administered sporadically;

– marketing occupied the edges of the organizational unit of the office as well as in its training policy, it was a common practice to combine various competences of the persons involved in the promotion and to allocate marketing responsibilities to different units;

– the scope of cooperation in terms of counselling and guidance provided by entities that specialize in marketing was fairly minor;

– rural communes provided modest amounts for marketing activities, given the fact that most of these expenses were spent on promotion[2];

– there is a scarcity of, if not a lack of, regular opinion polls;

– PR, similar to other marketing activities, is still underestimated by local governments;

– the most popular form of formal social communication was the use of promotional tools/ means of information transfer such as: billboards, websites, and the press; as well as municipal festivals, which were often organized on the occasion of town days such as during the harvest. Meanwhile, the least used PR instruments were: participation in competitions, publishing of local magazines, organization of meetings & conferences, and participation in fairs organized for the promotion of municipalities. Moreover, an analysis of promotional tools found a lack of systematic activities, such as the limitation of promotional activities with regards to the tourism product. This was seen as a lack of synchronization of promotional activities.

[2] The results of research, which was conducted by D. Guzal-Dec on 40 municipalities of the Lubelskie Province in 2004, showed that 80% of the share of marketing expenditures in total budgets was lower than 0.5% This was also indicated by I. Pomianek in her studies on 30 municipalities of the Warmińsko-Mazurskie Province in 2018.

Marketing Activities of Polish LAGs (Taking into Account the Example of LAGs from the Lubelskie Province)

The LEADER programme for 2014–2020, in line with the RDP guidelines for 2014–2020, aims to support Community-Led Local Development in rural areas through the preparation and implementation of Local Development Strategies (LDSs). From the perspective of this study, they are referred to as community-driven development strategies (*PROW na lata 2014–2020*). The functioning of LAGs during this period is governed primarily by a specific legal act (Rozporządzenie 2013, Ustawa z 20 lutego 2015 r. o rozwoju lokalnym z udziałem lokalnej społeczności, DzU z 2015 r., poz. 378). In accordance with the above-mentioned act on LAGs, these organizations operate in the form of associations involving representatives of the public, as well as economic and social sectors, with no interest group having more than 49% of votes at the decision-making level. At least 50% of the decision-making bodies should come from outside the public sector (outside of the local authorities). As required by the RDP for 2014–2020, at least 50% of the LDS budget dedicated to the sub-measure "Support for implementation of community-led local development strategies" is devoted for projects involving the creation or maintenance of job placements. LAGs may carry out: individual operations under applications submitted by beneficiaries other than LAGs, grant projects in which the beneficiary, LAGs, awards financial grants to other entities that have been selected by LAGs and "own" LAGs' operations in which LAGs are the beneficiaries and operators of the operation, and finally collaborative projects with other LAGs from the home country and from abroad.

Among the specific objectives to which LAGs relate in their statutes and which derive from the RDP, there are records which authorize LAGs to engage in marketing activities in favor of the area they represent. These objectives relate in particular to: the development of local products, the preservation of local heritage, the development of public and non-commercial tourism, leisure or cultural infrastructure, and the development of local processing incubators i.e. infrastructure for processing agricultural products to make it available to local producers (*PROW na lata 2014–2020*). Under the statutory objectives assigned to these organizations in the area of their marketing activity, what remains to be done is the creation and development of the elements of the mega-product of the municipality, including LDSs, projects of cooperation, and other projects implemented by LAGs, which are organized or promoted by local governments. Within the afore-mentioned projects, local products and integrated tourist products are being created. The second area of LAG marketing activity is promotional activity, which refers to the tourism products that have been created. In the 2014 to 2020 period, the communication significance of LAGs has increased considerably through the introduction of communication plans to LDSs. Communication plans are used to promote LDSs, among others.

Research on the functioning of LAGs in Poland based on pilot phase experiences from 2004–2006, and from 2007–2013 and the present, indicates an increasing role of LAGs in marketing activity, as well as in the area of creation and development of the elements of the mega-product of the municipality and its promotion. Already during the PPL+pilot phase, the activity was demonstrated in[3] (BOROWSKA 2009): initiating the creation of, processing or introducing products and services based on local resources including traditional and regional food products; development of services related to tourist traffic management and the development of tourism infrastructure; promotion, demonstrated most commonly in actions such as: organizing festivals, fairs, traditional product days, competitions, conferences, trainings, courses, meetings, lectures, educational and integration classes, realization of promotional events on the Internet, organizing cultural, recreational or sports events, publishing maps, folders, newsletters, catalogs, leaflets, brochures, albums and culinary books.

Research (KISIEL, GIERWIATOWSKA 2012)[4] conducted among LAGs operating in the period 2007–2013 showed that the priorities for the activities of the groups (fundamental objectives and tasks formulated in their LDS) included promoting the region and tourism development (84% of indicatons). When it comes to the results of LDS implementation, promotion of the group activities (understood also as tourism development) was reported by almost 71% of the sample.

In the Lubelskie Province all rural and urban-rural communes have affiliated themselves with LAGs since the 2007 to 2013 period. As of 31.10.2016 in the Lubelskie Province, as many as 22 LAGs were functioning (http://www. ksow.pl, access 10.05.2016). The surveyed LAGs consisted of 5 to 17 local governments. The average size of the area of surveyed LAGs was 1,085 square kilometers (standard deviation – 482.73) and the average number of residents reached 62,119.50 (standard deviation – 28,091.13)[5].

In all LAGs that were subjected to the survey, together with the implementation of the Community-led Local Development concept in 2014–2020, the current statutes have been updated. Analysis of the statutes of the surveyed LAGs indicated that among various statutory objectives, promotion of the area affected by the LAGs was included in all documents (22). In 19 statutes (86.36% of total) the development of tourism and agritourism was mentioned, while only in 12 of them (54.54%) the promotion of local, traditional and regional products was envisaged.

Local Development Strategies constituted the basic instrument for the implementation of the statutory objectives and, at the same time, they served as the specific strategic product. Two of the LAGs surveyed, in addition to LDSs, have also elaborated tourism development strategies, which is another product

[3] At the end of the PPL+ pilot phase, there were 167 LAGs operating in Poland.

[4] The primary data was obtained between September 4th and October 11th, 2011. The survey sample consisted of 147 LAGs that responded. The sample represents almost 44% of the entire population (335 LAGs were operating by the end of the 2007 to 2013 period).

[5] Data of the Central Statistical Office as of December 31st , 2013.

created within the LAGs. This is not directly with the participation of the local government, but rather with the support of the promotional activities of the local incubators. Four of the LAGs surveyed, planned to set up local processing incubators[6]. In relation to the incubator offer, Krasnystaw PLUS Action Group has adopted a strategy of promoting local products under the joint brand of "Krasna Chata".

Activities that develop and promote individual territorial products can be realized through various LEADER projects carried out by the LAGs, including, inter alia, cooperation projects. All surveyed LAGs planned to implement cooperation projects, including at least one with international cooperation. Apart from international projects, interregional and national intra-regional projects were also planned[7]. Most commonly (in 16 LAGs) there were 2 cooperation projects, in five of them – there were three projects and in one case – only 1 project. Analysis of the subjects of the planned projects indicates that all LAGs, which were subjected to the survey, planned, in the framework of the cooperation projects, to create and promote integrated tourism products and/or local products, of which four of the LAGs included both integrated tourism products and local products. In 19 LAGs (86.36% of the total) there were plans to create integrated tourism products (culinary trails can be pointed out as a good example).

According to RDP guidelines for 2014–2020, PR activities (in relation to LAG activities and LDS implementation) should be included in the running cost budget and LAG activation[8]. The budgets for the LAG communication plans ranged between PLN 13,200 and PLN 113,336, with an average of PLN 81,588.64 and a standard deviation of PLN 95,427.25. The surveyed LAGs were very different in terms of funds allocated to communication plans (the coefficient of variation was above 100). The analysis of the relation between the budget of the communication plan, the running costs and the activation of the LAGs also shows that there is a high variation of the LAGs surveyed (the coefficient of variation was over 90%). These shares were in the range of 0.01 to 0.13. In the case of the analyzed relationship, the majority of the surveyed LAGs had a score below the arithmetic mean with a right skewed distribution. Nevertheless, irrespective of the level and diversity of LAG promotional expenditures, the budgets of the communication plans provide additional funding and opportunities to promote LAG member municipalities. Analysis of the communication budget share of a municipality, in the examined LAGs, indicates that this share ranged from PLN 2,200 to PLN 18,235.29.

According to the provisions of the communication plans, the LAGs used and planned to use a very diverse set of PR instruments (Tab. 1).

[6] "Kraina wokół Lublina" Local Action Group – planned to set up 2 incubators.

[7] An example of which is the project entitled "Canoe Trail on the Wieprz River" implemented by 7 local action groups from the region.

[8] Under the "running costs and activation" sub-measure, LAGs can spend up to 25% of their LDSs budget.

Table 1

Public Relations instruments used by the LAGs in the Lubelskie Province

Type of PR instrument	Number of indications of use, where $N = 22$
Articles on LAG and municipality websites	22
Information and promotion publications	22
Information and consultation meetings in the municipalities of Poviat Labor Offices and lags	22
Profile on social media	22
Running the LAG website	22
Articles in the local press	20
Event for the residents	18
Counseling/trainings for beneficiaries	17
Information on notice boards at the premises of public institutions (municipal offices, Poviat Labor Offices, Municipal Cultural Centers)	16
Online questionnaires sent to beneficiaries	15
Questionnaires completed by participants of trainings	15
Tourist information posted on LAG websites	15
Information posted on social network sites	14
Printed and electronic training materials	11
Newsletters	9
Conference organization	9
Publication of reports on monitoring and evaluation of communication activities	7
On-line surveys	6
Study visits for beneficiaries	6
Contests	4
Placing virtual walk applications on LAG websites	4
Functioning of Mobile Information and Advisory Points of ldss	4
Trainings/information for local leaders	4
Interviews with the employees of LAG Offices	3
Consultation meetings concerning changes introduced into ldss	3
Organization of Entrepreneurial and Job Fairs	3
E-consultations	3
Meetings with representatives of disadvantaged groups	3
Information transmitted via the parishes	2
Information placed on notice boards in civil parishes	2
Interviews with the residents of the area on the occasion of events organized by particular municipalities	2
Radio announcements	2
Departure to and participation in fairs	2
Spots/ announcements in local/ regional television	2

Source: own elaboration based on LDS and LAG communication plans for financial Framework 2014–2020

An overview of the catalog of applied tools allows not only to extract some of their categories including: maintaining contact with the media, maintaining contact with the locals, public opinion research, information and training tools, tools that create an image of the territory, but also to state that they display a greater diversity in relation to instruments that are typical in the social communication of municipal offices. Based on this review, it can be noted that it is common to use the Internet and social media in contemporary communication. Through the LAG websites, including "virtual walk" applications, tourist information and the promotion of tourism products are also ensured. The tools used allow for feedback communication (which is a formal assumption of communication plans). Various means and channels of information transmission, tools for direct contact with the general public as well as with the representatives of social groups, including opinion leaders are used. It is quite common to organize training courses, conferences, and study visits that enable its participants to integrate and get acquainted with good practices. In all LAGs that were surveyed, or in the framework of communication plans or other activities, there were plans to organize events for the local community; for example there were collaborative projects. In six LAGs, there were plans to organize events related to the promotion of local products[9].

Organization of marketing activities of LAGs is facilitated by the inclusion of this activity in the creation of the organizational structure of LAG offices. In the organizational structure of five LAG offices (22.7% of the total) the animation and communication units were differentiated. In one office, the post of municipal coordinator was established, while in the remaining LAGs the communication functions, apart from the LAG Managing Directors, were exercised by employees responsible for the coordination of LAG projects.

Summary

In light of the research findings, the previously formulated hypotheses should be positively verified as.

Marketing activities of LAGs are a mix of product development and PR activities as they combine activities related to the creation/development of tourism products and their promotion. All LAG planned cooperation projects involved the creation and promotion of local products and/or integrated tourism products. The communication plans served to promote all the projects planned to be implemented under the LDSs.

[9] eg.: "Zielony Pierścień" Local Action Group organizes the Local Product Festival and created a Local Product Center. It also implements a project entitled "Promotion of the sub-region networking through the creation of a network of 11 bicycle friendly places and 7 Local Product Chambers as well as publishing a publication popularizing questing."

Local Action Groups contribute substantially to the creation of integrated tourism products and gradually to the formation of sub-regional territorial brands. Most of the surveyed LAGs planned to create integrated tourism products. What still requires a greater popularization among LAGs is the need to indicate the opportunities and benefits of branding.

Local Action Groups as organizations, which involve the cooperation of municipal governments with entities from public and economic sectors, not only apply tools used in public communication of municipal authorities that have a formalized character, but also tools which are endorsed and used as a means of communication by businesses, residents or non-profit organizations. The catalogue of the applied PR tools includes more modern tools in relation to the catalogue of communication activities that are typical of municipal governments. The use of social media is very common, but at the same time more traditional while still being very effective. These forms of communication are being maintained in rural areas such as e.g. "altar announcements". Communication plans include two-way communication tools as well as monitoring and evaluation of undertaken communication activities.

The marketing activity of LAGs is a synergistic reinforcement of marketing activities of individual local governments in the area of product development and shaping of the image. The limited employment capabilities of LAG offices (not all offices have identified a communication manager position) evoke the need for support in terms of marketing training[10].

LAG marketing activity requires further evaluation. Research is needed to document the tangible results achieved in product development and the analysis of reports monitoring the implementation of communication plans. It is necessary to study the public perception of LAG marketing activity. It would also be interesting to know in what direction LAGs will develop their municipal mega-products. It is not clear whether these will be done solely or as part of tourism products and associated sports and leisure activities, or whether they will also develop social products (by creating new non-agricultural jobs) and to what extent.

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[10] such activities, e.g. for the Malopolska Province, are conducted by the Provincial Agricultural Advisory Center.

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EVOLUTION OF COOPERATIVE BANKING SECTOR IN POLAND AND FINANCING LOCAL DEVELOPMENT

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Key words: cooperative banks, local socio-economic development, bank loans.

A b s t r a c t

The aim of the study presented in this paper was to assess the operations of cooperative banks in Poland in terms of financing local economic development. The assumption was that the fundamental operation which has an effect on economic growth consists in granting loans to local communities. According to the results of research, in the last 3 years the most significant increase in the banks' receivables from non-financial sector was recorded among natural persons. Yet cooperative banks are still primarily interested in financing business (roughly 75% of the receivables from non-financial sector in 2016 were business loans). Nonetheless, over the last several years the profits of cooperative banks have been decreasing thereby limiting their ability to increase equity through accumulation of profit.

EWOLUCJA SEKTORA BANKÓW SPÓŁDZIELCZYCH W POLSCE A FINANSOWANIE ROZWOJU LOKALNEGO

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S ł o w a k l u c z o w e: banki spółdzielcze, rozwój ekonomiczno-gospodarczy, kredyty bankowe.

A b s t r a k t

Celem badań przedstawionych w opracowaniu była ocena działalności banków spółdzielczych w Polsce w zakresie finansowania lokalnego rozwoju gospodarczego. Przyjęto, że podstawową działalnością banków spółdzielczych wpływającą na rozwój gospodarczy jest udzielanie kredytów dla społeczności lokalnych. Wyniki badań wskazują, że należności banków spółdzielczych od sektora

niefinansowego w ostatnich trzech latach najsilniej rosną od osób fizycznych. BS wciąż jednak są zainteresowane przede wszystkim finansowaniem działalności gospodarczej (kredyty na ten cel stanowiły ok. 75% należności od sektora niefinansowego w 2016 r.). Zyskowność banków spółdzielczych jednak od kilku lat stopniowo się obniża, co ogranicza możliwości zwiększenia funduszy własnych przez akumulację zysku.

Introduction

The situation on financial markets during the recent financial crisis in the years 2007–2013 showed the scale of influence financial institutions have on the development of real economy and economic growth. The cooperative banking sector in Poland consists of a large network of banking outlets situated in rural areas or in small towns. Cooperative banks act as intermediaries in transfer of direct payments from the European Union to farmers and – through granting loans – they contribute to the modernization and advancement of farming, they activate and support multi-functional development of rural areas and improvement of technical, manufacturing and social infrastructure in those areas. The aim of the study presented in this paper was to assess the operations of cooperative banks in Poland in terms of financing local economic development. The assumption was that the fundamental operation which has an effect on economic growth consists in granting loans to local communities. The analysis of the operations of cooperative banks in Poland was based on information provided by National Bank of Poland (NBP) and Polish Financial Supervision Authority (KNF). The paper also covers an analysis of the risks and dilemmas of this banking sector in the context of capital requirements laid down in new EU regulations.

Banks as institutional factors of local development

One of the trends in new institutional economics is the theory of transaction costs which centres on the search for such economic structures which allow for minimisation of expenditure associated with transactions. The advocates of the new institutional economics define transaction cost as the cost of execution and performance of a contract which does not have to be formal as there are also implicit (informal) contracts. Douglass North (recipient of Nobel prize in economic sciences in 1993) notes that in economy there are sectors which have a typically transactional character such as: wholesale and retail trade, financial intermediation, public administration and security, national defence (NORTH 2004). In analysing transaction costs, other representative of institutional economics, Oliver Williamson (Nobel prize winner in 2009) proposes that they should be divided into *ex ante* (costs of collecting information, finding customers, negotiations) and *ex post* costs which are associated with the performance

of a contract (WILLIAMSON 1979). From the viewpoint of the contract selection, decision-making processes consists of formulating assumptions, determination of parameters/criteria, risks, potential benefits, both short-term and long-term e.g. loyalty (BLASKOVA et al.2015).

As also suggested by HARDT (2005) the higher the *ex ante* transaction cost (paid), the lower the risk of potential *ex post* cost in the future. Furthermore, WILKIN (2016) compares transaction cost to friction resistance in mechanics and stresses that transaction cost arises from limitations of information and people's tendency to engage in opportunistic behaviour. He concludes that although transaction cost and friction resistance are both inevitable, the primary function of economic institutions is to attempt to limit it.

Institutional factors of local and regional development include formal institutions as well as informal institutions. As GODŁÓW-LEGIĘDŹ (2010) explains informal institutions should be viewed as rules of conduct included in moral systems, traditions and customs, the observation of which is based on self-control and informal social control. Formal institutions, seen as legal systems that regulate political and economic relations, are essential as they play a coordinative (they reduce the uncertainty associated with interpersonal relationships) and cognitive role. An important element of the concept of formal institutions is ownership and contract law.

In literature on territorial aspects of socio-economic development there are studies that analyse the impact of local conditions on the reduction in transaction cost. Recent results from SOKOŁOWICZ (2015) indicate that at a local and regional level informal institutions generate lower transaction costs than formal institutions.

This paper focuses on the operations of cooperative banks in a territorial context assuming that geographic proximity to potential stakeholders favours minimisation of transaction costs. Still, geographic proximity in itself is not sufficient to boost territorial development. Cooperation and relationships based on partnership and trust are essential. Socio-economic development is a long-lasting process. One of the stimulants of the process is financial support from financial institutions. For cooperative banks an important aspect is to define the purpose of their operations: an economic and a social one, e.g. a cooperative nature and location within a region.

Literature on the subject abounds in examples of correlations between the development of a banking system and economic development of various states. As noted by BIJLSMA and DUBOVIK (2014), effective financial intermediation helps improve capital allocation and drives GDP growth by increasing total factor productivity. However, research findings by CECHETTI and KHARROUBI (2012) suggest that when bank loans provided to the private sector are above 100% of GDP, there are no positive correlation between financial system and economic growth.

Specificity of cooperative banks

As proposed by CZTERNASTY (2015, p. 346), the cooperative movement is a socio-economic trend based on values such as integrity, openness, social responsibility, group solidarity and it is a form of business. Literature on cooperative banks frequently points to their dual nature, the combination of social objectives with economic objectives. ALIŃSKA (2008) notes that on one hand these institutions are owned by local stakeholders for the benefit of whom such institutions should operate, on the other hand, the institutions must seek strategies for improvement of their efficiency and effectiveness so as to be able to compete with other banks and non-bank financial institutions (e.g. savings and credit unions). In terms of the specificity of cooperative banks, one should take into consideration the concept of institutional logics under the organizational theory, which states that institutions operate on multiple embedded analytical levels: social, organizational and individual (FRIEDLAND, ALFORD 1991). According to ŁAWRYNOWICZ (2013) institutional logics are socially constructed models of material and symbolic practices, assumptions, values and beliefs which make individuals create and reproduce their existence, organize their time and space. The assumption of institutional logics is that the process of development and change of institutions can be modelled by agents of change. At the level of sectoral institutional logics the key factor is a common ground understood as a common set of knowledge, beliefs that enable communication and coordination of joint action (THORNTON 2002). For instance, banking logic can be construed as institutional logic within a sector where a bank's personnel constitutes resource designed for generating profit (Tab. 1).

Table 1

Selected institutional logics within the cooperative banking sector in Poland

Category	Banking Logic	Regulatory Logic	Cooperative Logic
Aims	increase in profits, efficiency, market share	construction of a secure system through establishment of ground rules	development and education of local communities through access to financial products and – indirectly – to capital
Management Rules	maximisation of profits and fulfilment of fiduciary duties to shareholders and depositaries	minimisation of individual risk of an entity aimed at minimisation of system risk	search for a balance between maximisation of local communities' access to banking services and fulfilment of fiduciary duties to shareholders and depositaries
Indicators	ROA, ROE, C/I	security and risk	lending commitment, number of shareholders, interest margin
Personnel	manageable resource for generating profit	resource that generates operational risk in a bank	employee, a member of local community, who should meet the financial needs of other community members

Source: own elaboration based on ŁAWRYNOWICZ (2013).

Cooperative banks in the Polish banking system

The tradition of cooperative banks in Poland goes over 150 years back. After the end of World War II, the Banking Law Act of 1975 obligated credit cooperatives to use the name "cooperative bank". Bank Gospodarki Żywnościowej (Bank of Food Economy) was turned into the head of all cooperative banks. The transformation of Polish economy after 1989 called for changes in the cooperative banking system. At the initial stage of political transformation in Poland, in 1989–1993, the law allowed for uninhibited formation of private banks and the existing cooperative banks could still offer a wide range of banking services throughout the country. Sadly, without having staff experienced in risk management, great numbers of cooperative banks ran into financial trouble. In addition, as a result of expanding into new areas throughout Poland, the banks lost their principal asset, which was the familiarity with clients. At the end of 1993, 680 cooperative banks were in the course of recovery proceedings. In the following years, with active support from NBP, the banks were subjects of consolidation in the form of mergers and acquisitions, recovery programmes and liquidation (SZAMBELAŃCZYK 2006). In consequence, the clients' trust in the banking sector was compromised. Until 1997 financial losses made 127 banks go bankrupt

Table 2

The Polish banking sector structure in the years 2012–2016

The number of banks					
Year	2012	2013	2014	2015	2016
Commercial banking sector					
Commercial banks	68	67	64	65	63
Cooperative banking sector					
Associations of cooperative banks	2	2	2	2	2
Cooperative banks	572	571	565	561	558
Total (1+2+3)	642	640	631	626	621
Shares of the assets of the entire banking sector					
	2012	2013	2014	2015	2016
Commercial banking sector [%]					
Commercial banks	91.4	91.1	91.1	91.2	90.7
Cooperative banking sector [%]					
Cooperative banks and associations of cooperative banks	8.6	8.9	8.9	8.8	9.3
Shares of the assets of the entire banking sector [%]					
Banks under domestic control	36.4	36.8	38.5	41	43.4
Banks under foreign control	63.6	63.2	61.5	59	56.6

Source: own elaboration based on the data of Polish Financial Supervision Authority (KNF 2017, 2016, 2015) and National Bank of Poland (NBP 2016, 2017).

and led to 243 mergers and acquisitions of cooperative banks (MLECZKO 2008, p. 633). In consequence, the number of cooperative banks decreased from 1664 at the end of 1990 to 560 at the end of 2016 (the number of commercial banks decreased to 63).

The cooperative banking sector has a roughly 9% share in the assets of the banking sector (Tab. 2). In 2016 cooperative banking outlets (head offices included) accounted for 38.0% of the overall number of banking outlets in Poland, and gave employment to 19.7% of the people employed in the banking sector (KNF 2017). In small towns in Poland cooperative banks are often the only banking outlets available. Therefore, the role of this type of banking is far greater than suggested by the cooperative banking sector's share in the assets of the Polish banking system.

At the end of 2016 foreign investors in banks in Poland had an approximately 57% share in the Polish banking sector (Tab. 2). It should be noted that during the last financial and economic crisis cooperative banks, made up in 100% of Polish capital, did not transfer profits abroad and did not grant any foreign currency loans, which means that they did not suffer the negative consequences as much as commercial banks.

Capital adequacy and selected indicators of the condition of cooperative banks

The increased number of regulations in the banking sector observed in recent years is a response of state institutions responsible for the stability of banking systems to the global financial crisis of 2008–2009. The Basel Committee on Banking Supervision (BCBS) tries to establish such security rules for banking systems which will achieve the designed purpose and will be widely applied and used throughout the world. Otherwise, if banks in various regions receive different treatment, they may accumulate risks. The banks in Poland are obliged to meet the capital requirements laid down in EU regulations (package CDRIV/CRR)[1] and follow the guidelines of NBP and the Financial Supervision Authority on capital adequacy ratios. The CRD IV Directive and CRR regulation have a direct impact on cooperative banks, especially in terms of capital and liquidity requirements. One example could be the solution associated with required amount of equity of cooperative banks. The minimum amount of registered capital for associated cooperative banks equals EUR 1 million. Non-associated banks or banks that intend to operate independently are required to hold a registered capital of at least EUR 5 million. Banks having a registered capital of more than EUR 5 million can operate independently and offer a full range of banking services throughout the whole country. If a bank has a registered capital of less

[1] CRD – Capital Requirements Directive , CRR –Capital Requirements Regulation.

than EUR 5 million, it will have a limited capacity to operate independently and will have to hand over some of the managerial functions to the associating bank. In accordance with CRDIV/CRR, the minimum level of the Total Capital Ratio (TCR)[2] effective since 2015, is – 8%. In Poland, KNF expects banks to maintain TCR ratio at 12%, higher than the regulatory standards. At the end of 2016, one commercial bank and 28 cooperative banks failed to fulfil KNF's guidelines regarding minimum capital ratios. Their total share in the assets of the banking sector was only 1.9% (*Raport o sytuacji banków* 2017). In 2016 TCR for the entire cooperative banking sector, regional banks included, was 17.1% as against 15.9% in December 2015 (KNF 2017).

The majority of cooperative banking groups in Western Europe are organized as Institutional Protection Schemes (IPS). The essence of IPS is to guarantee the solvency and liquidity of all members.

The IPS, introduced in Poland (in 2015) on the basis of associations of cooperative banks, aims to guarantee solvency and liquidity to all members, increase efficiency of internal control, e.g. in the area of risk management. A group which meets the IPS's eligibility criteria is entitled to present common liquidity ratios, count deposits of cooperative banks at associating banks towards liquid assets, apply 0% credit risk rate to mutual exposures. At the end of 2016 476 cooperative banks were members of the IPS (278 were banks associated with BPS[3], 198 were associated with SGB), and 82 were not covered by the institution protection system.

Not all regulations affect banks in equal measure. For instance, the bank tax introduced in Poland in February 2016 did not encumber cooperative banks due to its structure. The tax set at 0.0366% is charged monthly on the sum of assets reduced by, e.g. PLN 4 billion, the value of equity and purchased treasury bonds. In the first half of 2016, the total amount of tax paid by 18 commercial banks was PLN 1.47 billion. All cooperative banks had assets whose value was lower than PLN 4 billion and were exempt from the tax (NBP 2016).

In 2016 the situation in the cooperative banking sector was stable. The net financial result increased against that of 2015 by 22.7% (to PLN 567.7 million). 12 banks reported a net loss of PLN 89.4 million in total. The C/I ratio (cost/income ratio), referred to as cost efficiency ratio, is measured through comparison of bank's operating costs and depreciation with income (loss) from banking operation. The lower the ratio, the greater the cost efficiency. Table 3 shows that the C/I ratio for cooperative banks was higher than that of commercial banks. The ratio is affected by the great number of cooperative banking outlets (head offices included) which account for 38.8% of the overall number of banking outlets in Poland. Cooperative banks often have branches in small towns to ensure that elderly clients who do not use the Internet are not denied access to financial

[2] TCR – The ratio of a bank's total capital to risk weighted assets.

[3] BPS – Bank of Polish Cooperatives SA, SGB – the Cooperative Banking Group SA.

services. The costs at cooperative banks are also affected by the availability of government sponsored preferential loans and aid programmes.

The profitability of cooperative banks in the period between 2012 and 2016 decreased (Tab. 3).

Table 3

Selected indicators of the effectiveness of Polish banking sector in the years 2012–2016

Year	2012	2013	2014	2015	2016
ROA (net income/average assets), in %					
Commercial banking sector	1.2	1.1	1.1	0.8	0.9
Cooperative banking sector	1.2	0.9	0.8	0.4	0.5
ROE (net income/average funds), in %					
Commercial banking sector	11.1	7.8	10,1	7.6	7.7
Cooperative banking sector	11.1	8.4	7.5	4.4	5.2
C/I (costs / income), in %					
Commercial banking sector	49.1	51.0	48.7	56.8	54.3
Cooperative banking sector	65.8	70.9	69.3	76.5	70.4

Source: own elaboration based on the data of Polish Financial Supervision Authority (KNF 2017, 2016, 2015).

Compared to commercial banks, ROA and ROE ratios of cooperative banks were lower. The relatively low profitability of cooperative banks is especially important in light of the fact that in this sector retained earnings are the principal source of equity. In analysing the efficiency ratios within the cooperative banking sector one should note that the banks place deposit surplus in associating banks and invest in debt instruments. In the face of low interest rates in 2014–2016, such operations were less profitable than in the previous years and reflected directly on the results of cooperative banks.

Cooperative banks' lending activity

The dynamics of lending activity of cooperative banks is affected by their profitability, ability to accumulate capital essential for a new lending and the changing regulations of law regarding, e.g. capital requirements and liquidity standards. Local cooperative banks usually provide financing to farmers and small and medium enterprises (Tab. 4). In 2016 business loans accounted for roughly 75% of receivables from the non-financial sector. The breakdown of borrowers is affected by the local character of cooperative banks. If clients are members of local communities, bank employees in charge of loan decisions are more familiar with them and can effectively monitor their financial situation.

The most significant increase in the banks' receivables from non-financial sector was recorded among individual customers (natural persons). In this group of borrowers 56.7% accounted for housing loans (KNF 2017).

Nonetheless, the quality of receivables of cooperative banks from enterprises has decreased (Tab. 4).

Table 4

Loans granted to non-financial sector and loan portfolio quality of cooperative banks (in %)

Specification	2014	2015	2016
Loans granted to			
Large companies	0.5	0.6	0.6
Small and medium-sized enterprises (SMEs)	27.4	27.6	27.4
Individual entrepreneurs	15.0	14.6	14.3
Individuals	19.8	20.7	22.2
Individual farmers	26.9	26.2	25.5
Non-commercial institutions	0.8	0.8	0.9
Local government	9.7	9.4	9.3
Share of non-performing loans, including			
Large companies	12.0	7.2	6.9
Small and medium-sized enterprises (SMEs)	10.7	12.0	24.8
Individual entrepreneurs	9.3	9.5	10.5
Individuals	4.7	4.1	3.7
Individual farmers	1.8	1.7	2.1
Non-commercial institutions	1.4	1.6	2.4
Local government	0.0	0.0	0.1

Source: own elaboration based on the data of Polish Financial Supervision Authority (KNF 2017, 2016, 2015).

In 2016, non-performing loans granted to SMEs accounted for 24.8% of the value of the entire credit portfolio. In this context, it should be stated that in Polish cooperative banking sector the increase in the value of bank's assets is accompanied by increased share of its receivables from enterprises and reduced share of receivables from farmers, which is a result of the location of banks worth over PLN 500 million in large agglomerations (KOZŁOWSKI 2016). A significant problem, especially for small cooperative banks, is the concentration of operations within one county and voivodeship, which makes diversification of credit portfolio risk difficult. In terms of timely repayments, in spite of the changing economic conditions in the farm sector, farmers remain the most scrupulous borrowers. One explanation for this phenomenon could be the fact that in case of default farmers risk the loss of their property, which for most of them is the only source of income.

The analysis of the role of cooperative banks should cover their ancillary and commercial function. The former one involves access to financing of needs of individual clients (natural persons) and enterprises (especially investments), security of deposits and honest consulting. The commercial function manifests as maximization of profits of a bank and interests of stakeholders. For instance, in 2010 commercial banks in Poland recorded one of the highest rates of return in Europe, with nearly half of the profits allocated for dividend (JAWORSKI 2011). During the recent financial crisis cooperative banks did not limit financing to small and medium enterprises, which essentially meant that the condition of their credit portfolio was deteriorated (Tab. 4). Despite the financial crisis the cooperative sector continued to fulfil its economic and social function. It was essential for the development of rural areas and local communities.

Conclusions

In spite of consolidations, mergers, acquisitions and bankruptcies witnessed by the Polish banking system, cooperative banks still constitute the largest group of banks in Poland. According to the results of research, in the last 3 years the most significant increase in the banks' receivables from non-financial sector was recorded among individual customers (natural persons). Yet cooperative banks are still primarily interested in financing local business (roughly 75% of the receivables from non-financial sector in 2016 were business loans). Nonetheless, over the last several years the profits of cooperative banks have been decreasing thereby limiting their ability to increase equity through accumulation of profit. The capital of cooperative banks is generated locally, through accumulation of profit, organic development, and there is no external source of capital which could be blocked during a crisis, with profits transferred outside of Poland in the form of dividend, as it happened in case of some commercial banks controlled by foreign investors.

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ECONOMIC AND SOCIAL ACTIVENESS AS DETERMINANTS OF LOCAL DEVELOPMENT IN MAZOVIECKIE VOIVODESHIP (POLAND)

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K e y w o r d s: entrepreneurship, social initiatives, local development, self-government, Mazovieckie region.

A b s t r a c t

The aim of the research was to recognise the correlation between economic and social activeness and the local development level of semi-urban and rural gminas in Mazovieckie Voivodeship. The analysis shows that demography and the condition of infrastructure are strongly correlated to economic activeness, the number of businesses and the unemployment rate. On the other hand, social determinants (the number of NGOs, electoral turnout or the local government's predispositions) also play a role. About 70% of both semi-urban and rural gminas remained in the 1st Classes of the G-ranking and in the SA-ranking at the same time. For the 1st Classes of the G-ranking and EA-ranking this participation was even higher – from 80% for rural units to almost 90% for semi-urban gminas. Being located in close proximity to a city is an important growth stimulant for suburban gminas. More than 80% of highly developed units in the G-ranking were located in the Warsaw Metropolitan Area. Furthermore, there were no suburban gminas near the capital in the lowest development group. A low level of both economic and social activeness characterised only rural peripheral gminas.

AKTYWNOŚĆ SPOŁECZNA I EKONOMICZNA JAKO DETERMINANTY ROZWOJU LOKALNEGO W WOJEWÓDZTWIE MAZOWIECKIM

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S ł o w a k l u c z o w e: przedsiębiorczość, inicjatywy społeczne, rozwój lokalny, samorząd, region mazowiecki.

Abstrakt

Celem pracy była ocena zależności między aktywnością gospodarczą i społeczną a poziomem rozwoju lokalnego gmin miejsko-wiejskich i wiejskich województwa mazowieckiego. Przeprowadzona analiza pokazuje, że sytuacja demograficzna oraz stan infrastruktury technicznej są silnie skorelowane z aktywnością ekonomiczną, liczbą firm i stopą bezrobocia. Czynniki społeczne również odgrywają tu istotną rolę (liczba organizacji pozarządowych, frekwencja wyborcza lub predyspozycje samorządu terytorialnego). Około 70% gmin obu typów pozostało jednocześnie w 1 klasie rankingu generalnego i rankingu aktywności społecznej. Dla 1 klasy rankingu generalnego i rankingu aktywności ekonomicznej ten udział był jeszcze większy - od 80% dla jednostek wiejskich do prawie 90% w przypadku gmin miejsko-wiejskich. Położenie w bliskiej odległości od miasta stanowi ważny czynnik pobudzający wzrost gmin podmiejskich. Ponad 80% wysoko rozwiniętych jednostek z rankingu generalnego było zlokalizowanych w Warszawskim Obszarze Metropolitarnym. Ponadto do najniższej grupy rozwojowej nie zaliczono gmin ze strefy podmiejskiej Warszawy. Niski poziom aktywności gospodarczej i społecznej charakteryzował jedynie wiejskie gminy peryferyjne.

Introduction

Neither local development nor smart management of self-government can work without the involvement of residents and considering the fact that the municipality joins residents of different social spheres (SUNINA, RIVZA 2016). Local authorities (originating from the local community) and local social initiatives play a special role in community development (PYTLAK 2011, POMIANEK, BIERNAT-JARKA 2011, POMIANEK, KOWALCZYK 2016). They can influence not only the society's quality of life, but also the attractiveness of the community as a potential business location (DREJERSKA et al. 2014). According to endogenous development factors, local development is best measured at the LAU-2 level, which is at the communal level in Poland (referred to in the literature variously as gminas, communes, communities, municipalities). These factors are calculated more accurately and better reflect the local reality. Unfortunately, data availability is a big problem, because the Central Statistical Office of Poland (GUS) does not collect some potentially significant data on the local level. These are available only at the LAU-1 level (in the literature: at the level of poviats, districts or counties) or the NUTS-3 level (in the literature: Voivodships, provinces, regions), so it would be difficult or impossible to adapt them to differentiate the level of a particular phenomenon in gminas (POMIANEK, CHRZANOWSKA 2016). The aim of the research was to recognise the correlation between economic and social activeness and the local development level of semi-urban and rural gminas in Mazovieckie Voivodeship.

Material and Methods

The study included all rural (228) and semi-urban (51) gminas in Mazovieckie Voivodeship, according to their administrative state on 31.12.2015 (279 gminas in total). Urban gminas (35 large cities) were excluded from the analysis. Data from 2014 used to construct development indexes were taken from the Local Data Bank of the Central Statistical Office in Poland (GUS), while data on electoral turnout for the lower house of the Polish parliament (the Sejm) for the 2015 election came from the National Election Commission in Poland (PKW). Hellwig's method was used to provide 3 rankings of rural and semi-urban gminas in Mazovieckie Voivodeship. Regarding data availability at the LAU-2 level, a set of eight variables was prepared for the general ranking (Tab. 1).

The next two variables were selected for the ranking of economic activeness (Tab. 2).

Finally, four variables were used to construct the ranking of social activeness (Tab. 3).

Table 1

Diagnostic variables applied in the research – general ranking

Symbol	Diagnostic variables
Demographic variables	
X_1	Population density (population per 1 square kilometre)
X_2	Birth rate (balance of births and deaths per 1,000 inhabitants)
X_3	Balance of net migration per 1,000 inhabitants
X_4	Demographic dependency ratio (percent of post-working age population per 100 inhabitants of working age)
Infrastructural and investment variables	
X_5	Gmina property investment expenditures per capita
X_6	Proportion of population with a connection to a water supply
X_7	Proportion of population with a connection to waste water disposal
X_8	Proportion of children aged 3-5 participating in preschool education

Source: the Author's calculations.

Table 2

Diagnostic variables applied in the research – ranking of economic activeness

Symbol	Diagnostic variable
Economic activeness	
X_9	National economy entities registered in REGON per 10,000 population
X_{10}	Proportion of individuals in the working age population registered as unemployed

Source: the Author's calculations.

Table 3

Diagnostic variables applied in the research – ranking of social activeness

Symbol	Diagnostic variable
Social activeness	
X_{12}	Foundations, associations and social organisations per 10,000 inhabitants
X_{15}	Electoral turnout for the lower house of the Polish parliament for the 2015 election
X_{13}	Proportion of councillors with university degrees
X_{14}	Proportion of councillors with high professional qualifications

Source: the Author's calculations.

The multidimensionality of rural development justifies the use of multivariate analysis methods, including taxonomic ones. Hellwig's synthetic measure of development (SM_i) groups information from a set of diagnostic features and assigns a single (aggregate) measure to an analysed objects using values from 0 to 1 under the assumption that in doing so, a lower value SM_i determines a higher level of the occurrence under analysis (see: HELLWIG 1968). The formula for determining this measure is as follows:

– normalisation of diagnostic variables (x_{ij});

– making all variables homogenous by turning them into stimulants;

– constructing the object with the best (highest) values of the diagnostic variables (pattern):

$$z_{0j} = \max_i \{z_{ij}\} \tag{1}$$

where:

z_{ij} – the normalised values which have been observed in the (whole) data set;

– calculating the Euclidean distance (d_i) of each object from the constructed pattern:

$$d_i = \sqrt{\frac{1}{m}\sum_{j=1}^{m}(z_{ij} - z_{0j})^2} \tag{2}$$

where:

$i = 1, \ldots, n$ – the number of objects,

$j = 1, \ldots, m$ – the number of variables,

z_{ij} – the normalised value of the variable j for the object i,

z_{0j} – the normalized value of the pattern's variable j;

– the Hellwig measure is normalised by the following formula:

$$z_i = 1 - \frac{d_i}{d_0} \tag{3}$$

where:

d_0 – the value determined by the formula,

$$d_0 = \max_i \{d_i\} \tag{4}$$

Two parameters: arithmetic mean and standard deviation, were used in the classification of gminas by their level of development. Following classes were defined:

– class 1 (high level of development) $d_i > \bar{d}_i + s_{d_i}$ (gminas at a distance from the pattern exceeding $\bar{d}_i + s_{d_i}$);

– class 2 (medium level of development) $\bar{d}_i - s_{d_i} < d_i \leq \bar{d}_i + s_{d_i}$ (gminas at a distance from the pattern ranging $(\bar{d}_i - s_{d_i}, \bar{d}_i + s_{d_i})$;

– class 3 (low level of development) $d_i \leq \bar{d}_i - s_{d_i}$ (gminas at a distance from the pattern not exceeding $\bar{d}_i - s_{d_i}$),

where:

d_i – the value of synthetic measure calculated by Hellwig's method,

$\bar{d}_i$ – the arithmetic mean of d_i,

s_{d_i} – the standard deviation of d_i.

Results and Discussion

Table 4 presents the structure of development classes in three rankings: The general ranking (G-ranking), the economic activeness ranking (EA-ranking) and the social activeness ranking (SA-ranking).

The rankings included 279 gminas. The first, the G-ranking, was based on demographic and infrastructure variables. The 1st Class (of high level of development) comprised 13.6% of the analysed units (35.3% of semi-urban gminas and 8.8% of rural gminas). The 2nd Class included 75.3% of gminas: 78.5% of rural units and 60.8% of semi-urban ones. Other gminas (11.1%) were classified as 3rd Class. The lowest level of development characterised 12.7% of rural gminas and 3.9% of semi-urban ones only.

The EA-ranking's 1st Class included 12.9% of the analysed units, with 8.2% of rural and 33.3% of semi-urban ones. The medium-development class was comprised of 80% (83.8% of rural gminas and 66.7% of semi-urban units). The 3rd Class included 7.9% rural gminas (6.6% of the total number of analysed units).

Table 4

Structure of development classes determined by Hellwig's method

Groups of gminas	Development classes						Total number of gminas
	1st Class		2nd Class		3rd Class		
	number of gminas	% of gminas in the group	number of gminas	% of gminas in the group	number of gminas	% of gminas in the group	
General ranking							
Rural	20	8.8	179	78.5	29	12.7	228
Semi-urban	18	35.3	31	60.8	2	3.9	51
Total	38	13.6	210	75.3	31	11.1	279
Economic activeness' ranking							
Rural	19	8.3	191	83.8	18	7.9	228
Semi-urban	17	33.3	34	66.7	0	0.0	51
Total	36	12.9	225	80.6	18	6.5	279
Social activeness' ranking							
Rural	22	9.6	170	74.6	36	15.8	228
Semi-urban	16	31.4	35	68.6	0	0.0	51
Total	38	13.6	205	73.5	36	12.9	279

Source: the Author's calculations.

The 1st Class in the last ranking (related to social activeness) included 20.4% of the analysed units (9.6% of rural gminas and 68.6% of semi-urban ones). A medium level of development in social activeness characterised 73.5% of gminas, i.e. 74.6% of rural and 68.6% of semi-urban units. Finally, the 3rd Class had the highest percentage in comparison to the same classes in the two previous rankings. Again, there were no semi-urban gminas in the group from the lowest level. The rural communes amounted to about 15.8% of the entire rural group, and a 12.9% share of all analysed gminas.

Due to the growth of cities and their expansion beyond urban borders, suburban areas are exposed to particularly strong investment pressure. Such gminas face the challenge of imposing spatial order in areas experiencing intensive development. On the other hand, being located in near proximity to a city is an important growth stimulant for suburban gminas (WOLNY et al., 2014). Analysis of the G-ranking results show that among highly-developed gminas as many as 31 out of 38 (81.6% of the 1st Class units) were surrounding Warsaw (the capital). There were no Warsaw Metropolitan Area gminas in the 3rd Class of the ranking (Tab. 5).

Table 5

G-ranking: top and bottom 15 gminas

1st Class – top 15				3rd Class – bottom 15			
Position	LAU-1	LAU-2 (gminas)	d_i	position	LAU-1	LAU-2 (gminas)	d_i
1	piaseczyński	Piaseczno^s	0.626	265	makowski	Rzewnie^r	0.075
2	pruszkowski	Michałowice^r	0.582	266	przysuski	Klwów^r	0.075
3	piaseczyński	Lesznowola^r	0.573	267	żuromiński	Siemiątkowo^r	0.072
4	pruszkowski	Raszyn^r	0.522	268	ostrowski	Szulborze Wielkie^r	0.056
5	grodziski	Grodzisk Mazowiecki^s	0.495	269	lipski	Chotcza^r	0.047
6	wołomiński	Wołomin^s	0.493	270	żuromiński	Lutocin^r	0.044
7	warszawski	Ożarów Mazowiecki^s	0.471	271	sokołowski	Sabnie^r	0.042
8	pruszkowski	Nadarzyn^r	0.470	272	sokołowski	Sterdyń^r	0.036
9	warszawski	Łomianki^s	0.452	273	sokołowski	Ceranów^r	0.032
10	grodziski	Jaktorów^r	0.444	274	węgrowski	Wierzbno^r	0.022
11	pruszkowski	Brwinów^s	0.432	275	siedlecki	Korczew^r	0.016
12	warszawski	Stare Babice^r	0.425	276	lipski	Solec nad Wisłą^r	0.016
13	miński	Halinów^s	0.412	277	ostrowski	Nur^r	0.008
14	warszawski	Błonie^s	0.406	278	mławski	Dzierzgowo^r	0.001
15	legionowski	Nieporęt^r	0.395	279	siedlecki	Przesmyki^r	0.000

Note: ^{r} – rural gminas, ^{s} – semi-urban gminas
Source: the Author's calculations.

Table 6 presents results of the analysis of economic activeness variables: The number of national economy entities registered in REGON per 10,000 inhabitants (stimulant) and the proportion of individuals registered as unemployed in the working-age population (destimulant). As CHRZANOWSKA, DREJERSKA and POMIANEK found in 2013, the majority (91.7%) of 1st Class gminas were situated in the Warsaw Metropolitan Area. Nevertheless, the rest of the gminas were located in suburban areas of large cities (rural units: Słupno, Siedlce) or played an administrative role in the region (Białobrzegi, semi-urban gmina, as a seat of the LAU-1 unit). A low level of economic activeness development characterised only rural peripheral gminas.

The same situation can be observed in the social activeness ranking: Only peripheral rural communes in the 3rd Class and the Warsaw Metropolitan Area's gminas dominate among the highly-developed units. However, at 68.4%, it was less pronounced than in previous rankings. The top and bottom gminas are presented in Table 7.

Table 6

EA-ranking: top and bottom 15 gminas

1st Class – top 15				3rd Class – bottom 15			
Position	LAU-1	LAU-2 (gminas)	d_i	position	LAU-1	LAU-2 (gminas)	d_i
1	piaseczyński	Lesznowola^r	0.964	265	zwoleński	Przyłęk^r	0.114
2	warszawski	Łomianki^s	0.806	266	lipski	Chotcza^r	0.113
3	pruszkowski	Michałowice^r	0.768	267	szydłowiecki	Orońsko^r	0.110
4	pruszkowski	Raszyn^r	0.736	268	gostyniński	Szczawin Kościelny^r	0.109
5	pruszkowski	Nadarzyn^r	0.684	269	przysuski	Rusinów^r	0.109
6	warszawski	Izabelin^r	0.650	270	radomski	Gózd^r	0.107
7	warszawski	Stare Babice^r	0.643	271	żuromiński	Siemiątkowo^r	0.105
8	piaseczyński	Piaseczno^s	0.642	272	szydłowiecki	Jastrząb^r	0.099
9	pruszkowski	Brwinów^s	0.604	273	radomski	Pionki^r	0.090
10	piaseczyński	Konstancin-Jeziorna^s	0.599	274	przysuski	Wieniawa^r	0.088
11	legionowski	Jabłonna^r	0.591	275	radomski	Przytyk^r	0.086
12	legionowski	Nieporęt^r	0.564	276	szydłowiecki	Mirów^r	0.073
13	warszawski	Ożarów Mazowiecki^s	0.535	277	przysuski	Gielniów^r	0.048
14	otwocki	Wiązowna^r	0.522	278	przysuski	Borkowice^r	0.040
15	legionowski	Wieliszew^r	0.522	279	szydłowiecki	Chlewiska ^{r}	0.039

Note: ^{r} – rural gminas, ^{s} – semi-urban gminas
Source: the Author's calculations.

Table 7

SA-ranking: top and bottom 15 gminas

1st Class – top 15				3rd Class – bottom 15			
Position	LAU-1	LAU-2 (gminas)	d_i	position	LAU-1	LAU-2 (gminas)	d_i
1	2	3	4	5	6	7	8
1	warszawski	Izabelin^r	0.776	265	wołomiński	Poświętne^r	0.088
2	piaseczyński	Lesznowola^r	0.696	266	gostyniński	Pacyna^r	0.085
3	warszawski	Łomianki^s	0.679	267	płocki	Staroźreby^r	0.080
4	piaseczyński	Piaseczno^s	0.655	268	żuromiński	lubowidz^r	0.079
5	pruszkowski	Brwinów^s	0.640	269	płoński	Nowe Miasto^r	0.079
6	piaseczyński	Konstancin-Jeziorna^s	0.632	270	płoński	Raciąż^r	0.078

cont. Table 7

1	2	3	4	5	6	7	8
7	grodziski	Grodzisk Mazowiecki^{s}	0.615	271	ostrołęcki	Baranowo^{r}	0.065
8	otwocki	Wiązowna^{r}	0.563	272	ciechanowski	Ojrzeń^{r}	0.055
9	legionowski	Nieporęt^{r}	0.550	273	mławski	Dzierzgowo^{r}	0.042
10	legionowski	Wieliszew^{r}	0.536	274	lipski	Ciepielów^{r}	0.040
11	kozienicki	Kozienice^{s}	0.522	275	zwoleński	Tczów^{r}	0.033
12	grójecki	Grójec^{s}	0.519	276	płoński	Czerwińsk nad Wisłą^{r}	0.030
13	szydłowiecki	Szydłowiec^{s}	0.515	277	żuromiński	Lutocin^{r}	0.028
14	pułtuski	Pułtusk^{s}	0.508	278	garwoliński	Maciejowice^{r}	0.014
15	warszawski	Błonie^{s}	0.499	279	żuromiński	Kuczbork-Osada^{r}	0.007

Note: ^{r} – rural gminas, ^{s} – semi-urban gminas
Source: the Author's calculations.

Analysis shows that 25 gminas remained in the 1st Classes of the three above rankings. Most (23) were situated in the Warsaw Metropolitan Area, where the strong impact of the capital on surrounding rural and semi-urban areas is visible (see also: DREJERSKA et al. 2014, ŚLESZYŃSKI 2013, RAKOWSKA 2014). The other two gminas from the group – Słupno and Siedlce - bordered large cities of great economic importance (Płock and Siedlce). Furthermore, there was only one unit classified in the 3rd Class of development three times – Chotcza, which is rural and situated on the southern border of Mazowieckie and Lubelskie Voivodeships, in the peripheral area.

Table 8

Gminas remaining in the extreme classes in the three rankings

Gminas occurring in the 1st Class of the three rankings	Gminas occurring in 3rd Class of the three rankings
Piaseczno^{s}, Michałowice^{r}, Lesznowola^{r}, Grodzisk Mazowiecki^{s}, Ożarów Mazowiecki^{s}, Nadarzyn^{r}, Łomianki^{s}, Jaktorów^{r}, Brwinów^{s}, Stare Babice^{r}, Halinów^{s}, Błonie^{s}, Nieporęt^{r}, Konstancin-Jeziorna^{s}, Wieliszew^{r}, Jabłonna^{r}, Izabelin^{r}, Serock^{s}, Wyszków^{s}, Grójec^{s}, Słupno^{r}, Wiązowna^{r}, Czosnów^{r}, Teresin^{r}, Siedlce^{r}	Chotcza^{r}

Note: ^{r} – rural gminas, ^{s} – semi-urban gminas
Source: the Author's calculations.

As Table 9 shows, 22 units from the 3rd Class of the G-ranking were found in the 2nd Classes in the other rankings. These were only peripheral areas of Mazovieckie Voivodeship, located at a distance from Warsaw (the capital) and other large cities of the region. However, if economic and social activeness continue this way, these units may be upgraded to the 2nd or even 1st Class of the G-ranking.

Table 9

Units found in the 3rd Class of the G-ranking and remaining in the 2nd Class of the EA- and SA-rankings

Position in the G-ranking	LAU-1	LAU-2 (gminas)	d_i	Position in the G-ranking	LAU-1	LAU-2 (gminas)	d_i
251	mławski	Stupsk^r	0.098	264	węgrowski	Grębków^r	0.078
252	siedlecki	Mordy^s	0.096	265	makowski	Rzewnie^r	0.075
253	sierpecki	Zawidz^r	0.094	266	przysuski	Klwów^r	0.075
254	sokołowski	Jabłonna Lacka^r	0.094	271	sokołowski	Sabnie^r	0.042
255	garwoliński	Trojanów^r	0.092	272	sokołowski	Sterdyń^r	0.036
256	białobrzeski	Radzanów^r	0.089	273	sokołowski	Ceranów^r	0.032
257	białobrzeski	Promna^r	0.089	274	węgrowski	Wierzbno^r	0.022
258	płoński	Joniec^r	0.087	275	siedlecki	Korczew^r	0.016
260	sokołowski	Repki^r	0.085	276	lipski	Solec nad Wisłą^r	0.016
261	ostrołęcki	Czarnia^r	0.084	277	ostrowski	Nur^r	0.008
263	sokołowski	Kosów Lacki^s	0.081	279	siedlecki	Przesmyki^r	0.000

Note: ^{r} – rural gminas, ^{s} – semi-urban gminas
Source: the Author's calculations.

Two semi-urban gminas (Pilawa and Tłuszcz) as well as three rural units (Rzekuń, Mińsk Mazowiecki and Jedlnia-Letnisko), were classified as 1st Class in the G-ranking and were included in the medium development class in the EA- and SA-rankings. Therefore, there is concern that if the situation remains unchanged, these municipalities may be downgraded in the coming years.

Statistical analysis (using Pearson's correlation coefficient) showed a high correlation between the results[1] of the G-ranking and EA-ranking (amounting to 0.79) as well as a moderate correlation between the results of the G-ranking and the SA-ranking (0.63). Moreover, the examined correlation between the EA-ranking and SA-ranking amounted to 0.68, statistically confirming the above groupings of gminas.

[1] 100 gminas, d_i for each gmina.

Conclusions

Determinants of local development have been a combination of several factors. These include demographic, historical and natural conditions; the local government's predispositions, activeness and policy; social initiatives; economic activeness. The analysis presented shows that demographic and infrastructural conditions, including the number of enterprises and unemployed, have been strongly correlated to economic activeness. On the other hand, social determinants (the number of NGOs, electoral turnout or the local government's predispositions) also play an important role. About 70% of both semi-urban and rural gminas remained in the 1st Classes of the G-ranking and in the SA-ranking at the same time. For the 1st Classes of the G-ranking and EA-ranking, the participation was even higher – from 80% for rural units to almost 90% for semi-urban gminas. Lying in the proximity of a city is an important growth stimulant for suburban gminas. More than 80% of highly developed units in the G-ranking were located in the Warsaw Metropolitan Area. Furthermore, there were no capital suburban gminas in the lowest development group. Low levels of both economic and social activeness characterised only rural peripheral gminas.

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VALUE AND AIMS OF INVESTING FUNDS FROM OPERATIONAL PROGRAMMES 2007–2013 BY RURAL COMMUNES OF WARMIŃSKO-MAZURSKIE

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K e y w o r d s: operational programmes 2007–2013, rural areas, warmińsko-mazurskie, NTS 2.

A b s t r a c t

The main aims of the study were to determine the spatial variability of the value of funding absorbed by local self-governments of rural communes (by DEGURBA classification) from operational programmes 2007–2013 per capita (Sci index) and in relation to the average annual budgetary income (Rscr index), as well as to investigate the directions of their use according to the categories specified in the SIMIK database of the Ministry of Development, as of December 31, 2015. All 101 rural communes of warmińsko-mazurskie carried out 697 projects and absorbed 525.4 mln PLN of EU funding from OPs 2007–2013, which made up only 30% of the funding obtained by all communes of this region. The Sci index and Rscr index values reached by this funding ranged from 50 to 5,420 and from 1% to 164% correspondingly. However, most of the communes obtained the lowest values of EU funding placing them in the lowest sub-ranges of these indexes. Only three rural communes reached Rscr values above 100% of their average annual budget revenues. Rural communes of this region benefitted mostly from 'Regional OP for Warmińsko-Mazurskie' and from 'Human Capital OP', while 'Innovative Economy OP' and 'Infrastructure and Environment OP' were the sources of least support. Most projects carried out by these communes were either soft-projects or projects resulting in the development of plans and documentation. Hard projects were much fewer, but they still represented as many as 19 SIMIK priorities and met different development needs.

WARTOŚĆ ORAZ KIERUNKI WYKORZYSTANIA FUNDUSZY Z PROGRAMÓW OPERACYJNYCH 2007–2013 (2015) PRZEZ SAMORZĄDY GMIN WIEJSKICH WOJEWÓDZTWA WARMIŃSKO-MAZURSKIEGO

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S ł o w a k l u c z o w e: programy operacyjne 2007–2013, obszary wiejskie, warmińsko-mazurskie, NTS 2.

Abstrakt

Głównym celem badania było określenie przestrzennego zróżnicowania wartości funduszy unijnych pozyskanych przez samorządy gmin wiejskich (wg klasyfikacji DEGURBA) z programów operacyjnych 2007–2013, w przeliczeniu na 1 mieszkańca (wskaźnik Sci) oraz w relacji do średniorocznych dochodów ogółem budżetów badanych gmin (wskaźnik Rscr), a także wskazanie kierunków ich wykorzystania na podstawie kategorii bazy danych SIMIK, wg stanu z 31 grudnia 2015 r. Łącznie 101 gmin wiejskich tego regionu zrealizowało 697 projektów i pozyskało 525.4 mln zł dofinansowania unijnego z PO 2007–2013, co stanowiło jedynie 30% funduszy unijnych pozyskanych z tego źródła przez wszystkie gminy województwa warmińsko-mazurskiego. Wartości wskaźników Sci i Rscr uzyskane przez te gminy wiejskie wynosiły odpowiednio od 50 do 5420 oraz od 1% do 164%. Większość badanych gmin cechują jednak najniższe wartości tych wskaźników. Tylko trzy gminy wiejskie uzyskały fundusze unijne o wartości wyższej niż 100% ich średniorocznych dochodów budżetów ogółem. Gminy wiejskie tego regionu pozyskały wsparcie głównie z RPO warmińsko-mazurskiego oraz PO „Kapitał ludzki". PO „Innowacyjna gospodarka" i „Infrastruktura i środowisko" były źródłem znacznie mniejszego wsparcia. Większość zrealizowanych projektów to projekty miękkie lub opracowanie planów i dokumentacji. Projektów twardych było znacznie mniej, pomimo to reprezentują one aż 19 priorytetów bazy SIMIK są i ukierunkowane na zaspokojenie zróżnicowanych potrzeb rozwojowych.

Introduction

The key role of local self-governments in stimulating community development is undeniable (e.g. PARYSEK 1997, MYNA 1998, ZALEWSKI 2000, ADAMOWICZ 2003, SEKUŁA 2005, BABUCHOWSKA, KISIEL 2006, KOŻUCH 2011, MAŚLOCH, SIERAK 2013, PARYSEK 2015). As A. SZTANDO (1998, s. 14–16) concluded on the role of local self-governments in local development 'today, in the era of rapidly developing local development theories, the municipality is expected to be a driving force for local development, with the widest possible representation of the interests of the local community. Its role is no longer limited to meeting current needs. (...) Today, its primary role is to ensure that the harmonized and systematic functioning of the local economy is aimed at creating new and improving existing utility values of the municipality, creating favourable conditions for the local economy and ensuring spatial and ecological order.'

The role of local self-governments in local development is determined by the current legal conditions (Ustawa z 8 marca 1990 r. o samorządzie gminnym, DzU z 1990 r., nr 16, poz. 95, Ustawa z 24 lipca 1998 r. o wprowadzeniu zasadniczego trójstopniowego podziału terytorialnego państwa, DzU z 1998 r., nr 96, poz. 603, PAJĄK 2007), the realities of the socio-economic situation in Poland, as well as the challenges faced by local self-governments in relation to the growing need to promote sustainable local development. Due to the limited financial resources at the disposal of communes (e.g. SWIANIEWICZ 1996, KOŁODZIEJCZYK 2001), effective support for such a role requires external sources of financing. The importance of this problem has been reflected in the assumptions of the EU cohesion policy for 2007–2013, and the construction of the operational programs for that period.

The programs have provided the opportunity to obtain non-repayable cohesion policy funds by a wide range of potential beneficiaries, including communes (LAU 2s). The results of exploratory research indicate that communes were the largest beneficiaries of 2007–2013 operational programs in Poland, both in terms of the total value of these funds and the number of implemented projects (RAKOWSKA 2016a). This raises the question of the differentiation of the share, directions of use and effects of investments realized by the rural communes under the operational programs from 2007 to 2015 in different NUTS 2 regions of the country.

Completion of both nominal (2007–2013) and real (2007–2015) times of implementation of operational programs for 2007–2013 allows the undertaking of a full-scale study of the results of absorption of EU funds by all commune-beneficiaries of OPs in 2007–2013 or their selected types in each region of the country. The socio-economic situation of the warmińsko-mazurskie NUTS 2 (POMIANEK 2012, ŚLESZYŃSKI, KOMORNICKI 2016, ROSNER, STANNY 2016, RAKOWSKA 2016b) and its rural areas (ROSNER 2011, STANNY, CZARNECKI 2011, POMIANEK et al. 2013) result from historical conditions and are woven from current factors, including its location at the external border of the EU and its inclusion in the Development of Eastern Poland. These reasons were the rationale for undertaking research in this area.

The main objectives of the study were to determine the diversification of value of funding absorbed by local self-governments of rural communes from PO 2007–2013 in quantitative terms, i.e. per capita and in relation to the average annual budgetary income, as well as the diversification of directions of their use according to the categories specified in the SIMIK database of the Ministry of Development, as of December 31, 2015

Research methods

The study was based on secondary qualitative and quantitative data from:

– public statistical data from the Local Data Bank (LDB) Central Statistical Office of Poland for 2007–2013, as of December 31 of each analysed year[1];

– data and programme documents of the Ministry of Infrastructure and Development[2], especially operational programmes 2007–2013;

– secondary qualitative and quantitative data from the SIMIK (System Informatyczny Monitoringu i Kontroli) data-base; Ministry of Infrastructure and Development, as of December 31, 2015.

The quantitative part of the study includes an analysis of:

– differentiation of absorption of EU cohesion policy funds 2007–2013 by local self-governments of rural communes on the basis of the Sci indicator, reflecting

[1] Downloaded from www.stat.gov.pl/bdl/app/strona.html?p_name=indeks on May 15, 2016.

[2] Previously named the Ministry of Regional Development and also the Ministry of Development.

the sum of EU funding obtained from all operational programs 2007–2013 by the analysed communes per 1 statistical inhabitant of the commune, based on the formula:

$$SCi = \frac{\sum_{i=2007}^{2015} fu_i}{(\sum_{i=2007}^{2015} i_i)/n} \quad (1)$$

where:

fu_i – total EU funding obtained from operational programmes 2007–2013, in PLN,
i – number of inhabitants in 2007–2013,
n – number of years (9) of the real time of implementation of OPs 2007–2013, i.e. from 2007 to 2015;

– quantitative significance of EU funds for communes in the years 2007–2013 based on the relation of the sum of EU co-financing obtained from all OPs 2007–2013 to the average annual revenues of commune budgets in the analysed years (Rscr), based on the formula:

$$Rscr = \frac{\sum_{i=2007}^{2015} fu_i}{(\sum_{i=2007}^{2015} br_i)\ /n} \cdot 100\% \quad (2)$$

where:

fu_i – total EU funding obtained from operational programmes 2007–2013, in PLN,
br_i – total budget revenues of LAU 2 in a given year, in PLN,
n – number of years (9) of the real time of implementation of OPs 2007–2013, i.e. from 2007 to 2015.

The study used the division of the country according to the Nomenclature of Territorial Units for Statistics and division of the country into local units LAU 2 (Local Administrative Units – Level 2)[3] i.e. communes[4] and NTS 2 regions known in Poland as a 'voivodship' (RAKOWSKA 2013a). For this reason, NTS 2 and 'voivodship' and 'region', similarly to LAU 2 and 'community' have been used interchangeably.

Rural areas of warmińsko-mazurskie were defined and delineated according to the European Union DEGURBA (Degree of Urbanisation) classification, which assigns all LAU 2s in EU Member States into the following three categories[5]:

– cities (densely populated areas),
– towns and suburbs (intermediate population density areas),
– rural areas (thinly populated areas).

[3] Website of EUROSTAT, http://ec.europa.eu/eurostat/web/nuts/local-administrative-units (access 15.03.2017).

[4] In some translations also called 'municipalities'.

[5] Source: http://ec.europa.eu/eurostat/ramon/miscellaneous/index.cfm?TargetUrl=DSP_DEGURBA (access 3.11.2016).

Findings

All commune-beneficiaries in Poland carried out 22,829 projects with an 83,366 mln PLN total value, including 51,228.6 mln PLN in EU funding from OPs 2007–2013. All communes of warmińsko-mazurskie benefited from OPs 2007–2013, and carried out 1,250 projects with a 3,524 mln PLN total value, which included 2,223 mln PLN in EU funding.

Warmińsko-mazurskie NTS 2 has 116 LAU 2s, of which 101 (88%) are classified as rural according to DEGURBA[6]. All these rural LAU 2s were beneficiaries of operational programmes in 2007–2013. They carried out 697 projects co-financed by EU cohesion policy funding. The total value of these projects equalled 746.18 mln PLN and included 525.38 mln PLN (70%) of EU funding. Rural LAU 2s benefitted from four operational programmes (OPs), including three managed centrally and addressed to all potential beneficiaries in Poland, i.e. 'Infrastructure and Environment OP 2007–2013' (IandEOP), 'Innovative Economy OP 2007–2013' (IEOP), and 'Human Capital OP 2007–2013' (HCOP). 'Regional Operational Programme for Warmińsko-Mazurskie 2007–2013' (ROPWM) was the fourth one, and it was addressed only to potential beneficiaries from this region.

The largest (63.5%) share of total EU funding absorbed by rural communes of warmińsko-mazurskie came from 'Regional OP for warmińsko-mazurskie 2007–2013'. The value of 333.77 million PLN co-financed 197 projects carried out by 64 rural communes. 'Sports, recreation and cultural center, sports and entertainment hall with a swimming pool in Olecko' carried out by the Olecko commune was the biggest project in this group: it cost 35.7 mln PLN, which included 10.5 mln PLN in EU funding. The second and third biggest projects were carried out by Piecki and Ostróda communes and aimed at wastewater treatment. Their total costs equalled 18.5 and 17.2 mln PLN (correspondingly) and included 9.1 and 12.4 mln PLN of EU funding under ROPWM. As many as 108 projects carried out by different rural communes in different parts of the region cost less than

1 mln PLN and obtained from 0.08 to 0.79 mln PLN in EU funding. Projects carried out by rural communes under ROPWM represented 19 categories of SIMIK priorities. The largest group of 56 projects related to 'Prevention of threats (including the development and implementation of plans and instruments for the prevention and management of natural and technological threats)', and the second largest group of 33 projects was done under the priority 'Wastewater treatment'. A similar number of projects were assigned the priority 'Solar,

[6] Only three cities, i.e. Elbląg, Ełk and Olsztyn are classified as densely populated (i.e. cities), while the remaining 12 communes, i.e. Braniewo, Działdowo, Iława, Lubawa, Nowe Miasto Lubawskie, Ostróda, Giżycko, Bartoszyce, Kętrzyn, Lidzbark Warmiński, Mrągowo and Szczytno are classified as 'towns and suburbs' i.e. intermediate population density areas.

biomass, hydroelectric, geothermal and other renewable energy' (16), 'Regional and local roads', 'Infrastructure of educational system' (15 projects each), and 'Integrated projects for urban and rural revitalization' (14). Other priorities included a smaller number of projects carried out by rural communities, e.g. 'Other support for strengthening tourism services' (10), Services and applications for citizens (e-health, e-government, e-education, e-inclusion, etc.) – 9, 'Cycle paths' (7), 'Other activities to stimulate research, innovation and entrepreneurship in SMEs' and 'Management of municipal and industrial waste' (5 projects each), 'Other actions for environmental protection and risk prevention' (4), 'Protection and preservation of cultural heritage' (3). Five priorities, namely 'Technology transfer and improvement of networking between SMEs, between SMEs and other businesses, universities, many types of institutions at the level of post-secondary education, regional authorities, research centres and scientific and technological poles (science and technology parks, technopolies, etc.)', 'Telecommunications infrastructure (including broadband networks)', 'Services and applications for SMEs (e-commerce, education and training, networking, etc.)', 'Ports' and 'Development of cultural infrastructure' were represented only by one project in each case.

The Human Capital Operational Programme was the source of the second largest value (161.3 mln PLN) of EU funding obtained by rural communes of warmińsko-mazurskie (table 1) due to the realization of 448 projects worth nearly 190 mln PLN (Tab. 1). Operational Programme Human Capital was the most popular – all rural communes carried out projects co-financed from this source. Some of them carried out projects only under this programme, and it was from one to 17 (Biskupiec) and 20 (Lidzbark Warmiński) investments. The majority (337=75.4%) of projects under HCOP received EU funding of less than 0.5 mln PLN. The biggest project cost 5.85 mln PLN, which included 4.97 mln PLN. It was carried out by the Iłowo-Osada commune and aimed at social and professional activation. As many as 351 projects concentrated on the aims of 'Actions to increase participation in lifelong education and training, in particular through measures aimed at reducing premature dismissal of schooling and minimizing discrimination based on gender and through measures to improve quality and access to initial, vocational and higher education and training'. The next 87 projects were aimed at 'Paths for integration and return to employment for disadvantaged people; Combating discrimination in access to the labour market and career development and promoting acceptance for diversity in the workplace', the remaining 10 projects aimed at 'Elaboration, launch and implementation of the reform of education and training systems to increase employability, increase adaptation of initial and vocational education and training systems to labour market needs, and systematically update the education system staff in the perspective of an innovation and knowledge-based economy'.

'Innovative Economy OP' was the source of a much smaller sum of EU funding obtained by rural communes of warmińsko-mazurskie. There was 27.9 mln PLN in co-financing for 17 projects carried out by 16 communes. Most (14) projects addressed the priority 'Other measures to improve access to and use of ICT', 2 projects 'Other investments in companies', and only 1 project called 'Advanced business support services for enterprise and enterprise groups'.

Table 1

Total value and number of projects, minimum, average and maximum EU funding absorbed by local self-governments of rural communes in warmińsko-mazurskie by operational programmes PO 2007-2013

Operational Program	Total value of projects	EU funding under OPs	The share of EU funding in total value [%]	Number of projects	Minimum, average and maximum value of EU funding per project [mln PLN]
	mln PLN				
Infrastructure and Environment	3.22	2.38	73.9	17	min.= 0.008 av.= 0.014 max.= 1.08
Innovative Economy	33.00	27.94	84.6	17	min.= 0.24 av.= 1.64 max.= 10.47
Human Capital	189.75	161.28	85.0	448	min.= 0.021 av.= 0.36 max.= 4.97
Regional OP for warmińsko-mazurskie	520.22	333.77	64.2	197	min.= 0.086 av.= 1.69 max. = 12.41
Total	746.18	525.38	70	697	min. = 0.008 av. = 0.77 max. = 12.41

Source: author's elaboration based on SIMIK data.

'Infrastructure and Environment OP' co-financed 17 projects at a 3.22 mln PLN total value (Tab. 1). Most of these projects aimed at developing plans for a low carbon economy for the benefit of rural communes. Only two of all the projects carried out under IandEOP resulted in the construction of sanitary sewerage and water supply networks in the Jonkowo and Szczytno (szczycieński LAU 1) rural communes.

The SCi index shows the total value of EU funding obtained by the commune per 1 inhabitant. Its value for rural communes of warmińsko-mazurskie ranged from 50 to 5,420 PLN per 1 inhabitant. Nearly 38% of the analysed communes obtained the lowest values of EU funding resulting in a SCI index between 50 and 500, for 28% of them the SCi ranged from 500 to 1,000, for 19% between 1,000 and 1,500, for the next 10% between 1,500 and 2,000 and for the remaining

6 rural communes it had the highest values between 2,500 and 5,420. Communes characterised by different SCi values do not create any spatial groups, they are located in various areas of the region (Fig. 1).

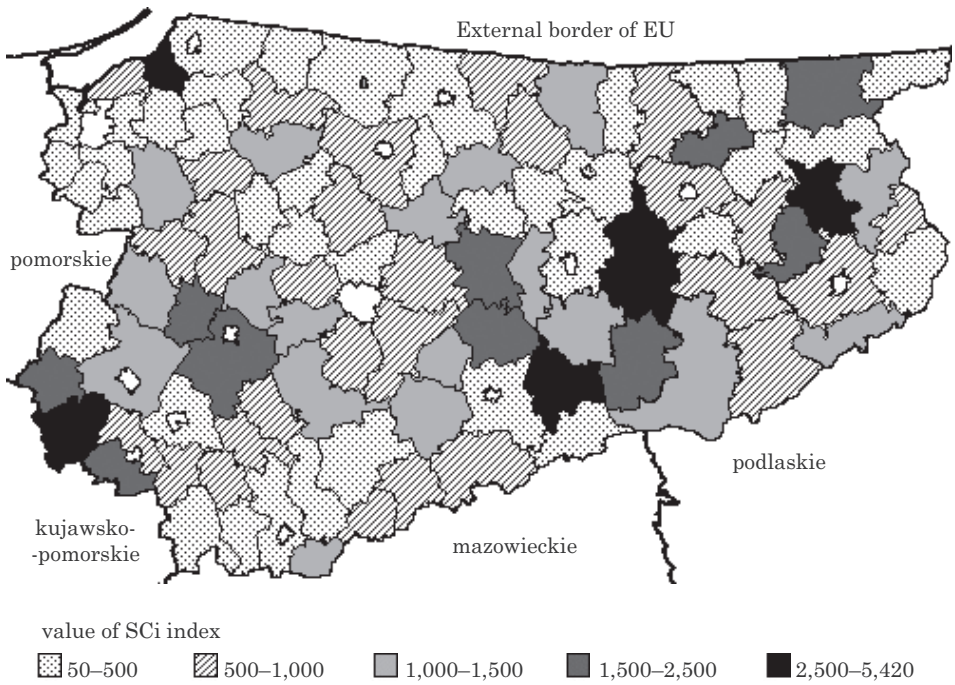

Fig. 1. Spatial differentiation of rural communes by SCi index value
Source: author's elaboration based on data from SIMIK and the Local Data Bank of the Central Statistical Office of Poland.

The analysed rural communes varied significantly with regards to their Rscr index value (Fig. 2). Most of them (60=59.4%) absorbed the lowest values of EU funding, resulting in an Rscr index between 1% and 25%. The second largest rural LAU 2 group (24=23.7%) were those which absorbed EU funding equal to 25%–50% of their average annual budget revenues. The next group included 13 rural communes (12.9%) whose Rscr ranged from 50% to 75%. Only 3 of the analysed LAU 2s absorbed EU funding higher than 100% of their average annual budget revenues.

Communes characterised by different Rscr values did not create any spatial groups, they were located in various areas of the region (Fig. 2).

Three rural communes, namely Biskupiec (nowomiejski LAU 1), Ryn and Świętajno (olecki LAU 1) obtained the highest values of EU funding, resulting in the highest SCi and Rscr indexes (Tab. 2).

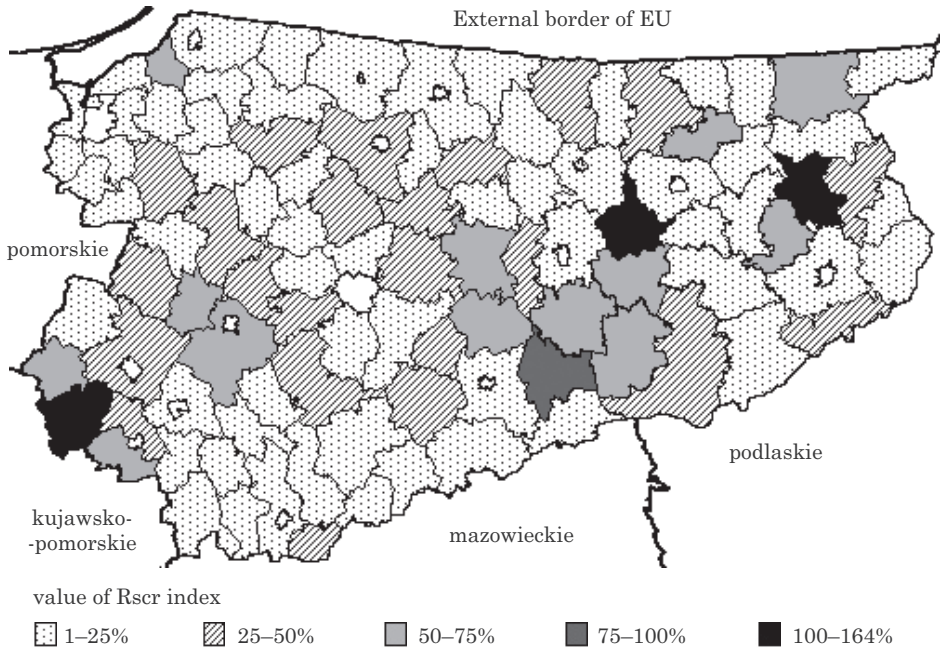

Fig. 2. Spatial differentiation of rural communes by Rscr index value
Source: author's elaboration based on SIMIK data and the Local Data Bank of the Central Statistical Office of Poland.

Table 2

Number of projects, SCi and Rscr indexes reached by Biskupiec (nowomiejski LAU 1), Ryn and Świętajno (olecki LAU 1), the biggest beneficiaries of OPs 2007–2013 in the analysed group

Commune	SCi index	Rscr index [%]	No of projects
Biskupiec	3,689.3	106	9
Ryn	4,610.7	127	9
Świętajno	5,412.3	163	6

Source: author's elaboration based on data from SIMIK and the Local Data Bank of the Central Statistical Office of Poland.

Świętajno commune obtained the highest Rscr (63%). In this case, total EU funding equalled 2.34 mln PLN and contributed 84% to the total value of 2.8 mln PLN. This was used for 6 projects carried out under HCOP (5) and ROPWM (1). Projects under HCOP aimed at improving the social and educational situation, while the project under ROPWM aimed at the improvement of ecological security thanks to the purchase of special equipment for the fire station. The second highest Rscr (127%) was reached by the Ryn commune.

It resulted from the realisation of 9 projects with a total value of 38.5 mln PLN, including 68% (26.2 mln PLN) of EU funding. In this case, HCOP was a source of EU funding for 4 projects, while ROPWM co-funded 5 projects. The latter co-funding included the expansion and modernization of the port infrastructure at Ryńskie Lake in Ryn, 3 projects aimed at wastewater treatment and 1 was related to environmental protection – the construction of a mini yacht marine. Biskupiec commune obtained EU funding with a value of its average annual budget revenues. The 10.9 mln PLN in funding was 74% of the total value for 15 projects performed under OP Human Capital (5), ROPWM (9) and Infrastructure and Environment OP (1). Three of these projects were connected with renewable sources of energy, two with the modernisation of local roads, another three with environmental protection (description of a low carbon local economic plan, the construction of a sanitary sewage system and the reclamation of a landfill), four projects aimed at improving the educational system, and the last two supported the commune office and fire station.

The Pearson's correlation between the Sci index and the amount of population as well as between the Sci index and the density of the population proved to be insignificant (0.03). The Pearson's correlation between the Sci index and the total budget revenues per capita (0.35) appeared to be stronger, although they were still not significant.

Conclusions

All rural communes of warmińsko-mazurskie benefitted from EU funding under OPs in 2007–2013. Although the rural communes are more numerous (101 out of 116 communes in the region), they absorbed much less than the urban areas, i.e. 30.4% of EU funding was obtained by all communes of warmińsko-mazurskie. The rural communes of warmińsko-mazurskie carried out different numbers of projects under operational programmes in 2007–2103, i.e. 'Regional Operational Programme for Warmińsko-Mazurskie', 'Human Capital OP', and to a much smaller degree the 'Innovative Economy OP' and the 'Infrastructure and Environment OP'. None of them benefitted from the PO Development of Eastern Poland.

Projects carried out under ROPWM represented the widest range of SIMIK priorities, as they aimed at different development needs. Projects carried out under HCOP were most numerous – all rural communes benefitted from this programme. However these were mostly soft projects of a relatively low value. Values of the Sci index ranged from 50 to 5,420 PLN per 1 inhabitant, but nearly 60% of the analysed communes obtained the lowest values between 50 and 500. Values of the Rscr index ranged from 1% to 164%, and the largest group of communes obtained EU funding resulting in the lowest Rscr between 1% and

25% of average annual budget revenues. In both cases, rural communes who had obtained different index values were located in different areas of the region, and did not create any spatial patterns. There were only three rural communes, namely Biskupiec (nowomiejski LAU 1), Ryn and Świętajno (olecki LAU 1), whose Rscr was higher than 100% of their average annual budget revenues.

Such characteristics as population, density of population and total budget revenues per capita were not correlated with the value of absorbed EU funding per capita (Sci index), which proves that these factors did not influence the absorption of regional policy funding by the surveyed communes.

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