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DIVERSITY OF SOCIAL POTENTIAL IN A PERIPHERAL AREA – AN EXAMPLE OF MIDDLE POMERANIA COMMUNES¹

Key words: peripheral areas, typology, social potential, diversity, Middle Pomerania

ABSTRACT. The aim of this article is to diagnose and assess the differences in terms of social potential within a peripheral area. The analysis concerned the area of Middle Pomerania. A typology of communes in this region was carried out to confirm the thesis about existing internal differences in terms of structure and dominant economic functions. Five different functional types were revealed, i.e., peripheral communes, functional-transitional communes, touristic communes, functional-urban communes as well as large and medium-sized cities. The typology was assessed in terms of its cognitive usefulness and practical use in the diagnosis and assessment of differences in local social potentials. In the course of considerations, the hypothesis stating that it is possible to distinguish relatively internally homogeneous but heterogeneous types of communes in the peripheral area and identify, for each of them, local social potentials used for the creation of the so-called critical mass initiating their development processes was confirmed. Secondary data from the Local Data Bank of Statistics Poland was used to carry out a typology of the communes of Middle Pomerania. In the adopted research approach, social potential was expressed in the form of latent constructs for human and social capital. The human capital index (HCI) and the formal social capital index (FSCI) calculated individually for each functional type of communes were used. The diagnosis of the social potential was carried out in the period of July-August 2020 by means of a diagnostic survey using CAPI and CAWI methods on a random, representative sample of $N = 1,121$. The analysis and assessment of the existing social potential differentiation was carried out in spatial terms, taking into account the selected types of communes for the peripheral area. The preliminary results of the research allowed to positively verify the adopted hypothesis. Each of the distinguished functional types of communes in the peripheral area under study is characterized by a different level of social potential.

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INTRODUCTION

Although the problem of peripherality has been the subject of discussion for many years, the very term “peripheral area” or “periphery” has not uniformly been defined. When characterizing peripheral areas, it is worth noting that they are most often described as sparsely populated areas, with a low percentage of the urban population, a significant migration rate, high unemployment among young people and a great number of the elderly [Grosse 2007b]. Due to the accumulation of problems, they are often referred to as problem areas [Bański 2002, Bański, Churski 2004a, 2004b, Mazur 2009, Śleszyński et al. 2017]. Relatively new topics, at a European level, are the so-called “inner peripheries”, which relate to the original assumptions of ESPON [2013] and refer to territories with problems, such as:

- demographic decline (migration and a low birth rate);
- the aging of the population, a lack of services of general interest (SGI), such as hospitals and schools, a lack of availability (time);
- a lack of economic diversity, a loss of local identity;
- limited development areas/spatial development, the closure of major economic activities and utilities;
- proximity to natural barriers.

In addition to the above, the inner periphery is characterized by poor accessibility to main areas and services of general interest as well as exclusion from the network, which, in turn, leads to negative demographic trends, social exclusion and economic decline [ESPON 2017, Copus et al. 2008]. The “inner periphery” covers 45% of the total area of Europe [ESPON 2017]. Therefore, it is important to assess its main features and problems in order to meet challenges, such as emigration and economic decline. More than 1/3 of such areas coincide with less developed regions [ESPON 2017] and in around 80% with rural areas in Europe [ESPON 2018]. This, in turn, means that the cohesion policy directly related to less developed regions and rural development policy, mainly supporting agricultural areas, is naturally directed towards the “inner periphery”.

The main problem of peripheral regions is the low ability to initiate processes enabling their development. As Tomasz Grosse [2007] writes, they do not have a sufficient “force” to attract these factors from outside (central areas), especially basing on market principles. Building the so-called “critical mass” that activates autonomic and permanent development processes may be a great challenge for some of them [Grosse 2007]. It is also an opportunity to create activities aimed at initiating permanent innovative changes. Researchers indicate that even a radical change of the current development path is most often based on the internal resources of a specific company or region [Hospers 2006].

In literature on the subject, many concepts of growth in which authors attribute an important role to endogenous and indigenous factors in initiating developmental processes can be found [Tödtling 2010]. This is confirmed by, among others, works by Grzegorz Gorzelak [2004], Paweł Churski [2008], and OECD publications [2009a, 2009b]. Endogenous development potential should be equated with a set of unique features of a given region (country, commune). It is determined by its resources, e.g., geographic, economic, demographic, social and technological [Milczarek 2005].

Regardless of the approach adopted, it is worth noting that properly diagnosed and effectively used regional potential may constitute a strong development stimulus for deficit areas, including less developed [Synówka-Bejenka 2017, Hall 1997], less industrialized or revitalized (e.g. industrial) [Hospers 2002, Xie 2006], rural and peripheral areas [Keane 1992].

In creating the so-called critical mass and initiating development processes in peripheral areas, the key role is played by social potential, the pillars of which are social and human capital. Social potential relates to a specific community, i.e., people living in a given territorial unit. It determines the possibilities, ability to act, and production capacities inherent in the local, regional (territorial) community. Social potential is also constituted by enterprises, institutions and all members of the community. These entities are connected with each other by a network of interactions (cooperation, collaboration), which is the source of the synergistic effect of the local environment [Kowalczyk 2002]. It is to these capitals that the representatives of the new approach in the theory of development assign a key role in the processes of socio-economic development, both globally and locally. Researchers dealing with the problem of socio-economic inequalities particularly emphasize the need to take action aimed at improving the quality of human resources (especially in rural areas) and even rebuilding the social capital of their inhabitants [Romer 1990, Halfacree 1993, Nussbaum, Sen 1993, Coleman 1988, Mc Gregor, Goldsmit 2004, Kozera 2014]. Achieving the above objectives is of key importance for the development of peripheral areas and can only take place through the proper identification and characterization of their local endogenous resources.

RESEARCH PURPOSE, SCOPE AND METHOD

This article is an attempt to fill the existing empirical gap with regard to the development of instruments for supporting the development processes of communes in peripheral areas. Its goal is to diagnose and assess differences in terms of social potential between communes within the peripheral area. An interesting research area for the authors was to answer the question: what local social potential do the communes of the peripheral area have and do they show significant differences in this respect?

The point of reference for undertaking research in this direction were the results of the typology of peripheral areas by, among others, Monika Stanny [2011, 2012]. The author has distinguished three different types of peripheral communes functioning in the Polish socio-economic space (the so-called northern, eastern and southern model)², concluding that the distinguished types of communes show differentiation features in terms of the socio-economic structure as well as have different problems and challenges. She also underlined the existing need to develop such a concept of the development of these communes that will not simplify reality with its universalism and will allow to use their internal, heterogeneous potentials [Stanny 2012].

Although the quoted typology, as well as others presented in literature on the subject [e.g. Komornicki, Śleszyński 2009, MRR 2012, Śleszyński, Mazur et al. 2015, Komornicki 2016] provides strong evidence about the diversity of peripheral areas, in the opinion of the authors of the article, it does not fully reflect the specificity of these internal differences due to selected socio-economic features. The indicated researchers consider peripheral areas as certain clusters of communes. On the other hand, the authors of the article assumed that the existing differences in peripheral regions should be sought in, among others, the local social potential, which would allow a given commune to overcome the barrier in the form of the so-called “critical mass” which is necessary to initiate the development processes of this unit.

In light of the above considerations, the thesis stating that peripheral areas are characterized by internal differentiation has been considered correct. In order to learn about and characterize the internal structure of social potential in the selected peripheral area, a new methodological solution was proposed – a typology. As a result, the obtained non-hierarchical classification of communes revealed their different types, which was a key premise for undertaking in-depth research aimed at identifying and characterizing local social potentials in each functional type separately. The hypothesis stating that it is possible to distinguish relatively homogeneous (internally coherent) but heterogeneous types of communes as well as identify local social potentials for each of them, used to create the so-called critical mass initiating their development processes was verified.

As an empirical example, the communes of the Middle Pomeranian region in Poland (86 communes in total³) were selected, which, although not separated administratively, is an illustration of a deficit area with peripheral features.

The initial selection of features, i.e., indicators used for the typology of communes within the adopted peripheral area, was carried out with the use of an expert method,

² Monika Stanny distinguished areas concentrating peripheral communes based on the anatomy of their socio-economic structure, using a synthetic indicator level of socio-economic development.

³ Classification of communes according to the Statistics Poland's administrative criterion: 1 – urban communes, 2 – rural-urban communes, 3 – rural communes. According to TERYT and OECD nomenclature, all examined communes meet the rural area criterion.

supported by FGI. Annual average data from the Local Data Bank of Statistics Poland for the years 2017-2020 was used to construct the indexes. Finally, after substantive and formal-statistical verification, the following indicators were included in the typology-based analysis:

- 1) share of individual farms running an agricultural activity of 1-5 ha in the total number of individual farms over 1 ha running agricultural activity.;
- 2) share of households with agricultural activity income in the total number of households with an owner of an agricultural holding;
- 3) share of the long-term unemployed in the total working age population;
- 4) share of the population benefiting from environmental social welfare in the total population;
- 5) share of enterprises in section C (according to the Polish Classification of Business Activities (PKD) Processing industry);
- 6) share of enterprises in section H (according to PKD Transport and warehouse management);
- 7) share of enterprises in section I (according to PKD Activities related to accommodation and catering services);
- 8) share of enterprises of section M (according to PKD Professional, scientific and technical activity);
- 9) population density, inhabitants per 1 km².

For the typing of communes, the taxonomy of k-means distinguishing groups of similar objects (the so-called clusters) was used. It represents a group of non-hierarchical algorithms.

In the presented conceptual approach, social potential is expressed by its two main components, i.e., human capital and social capital. These forms of capital are distinct categories that are strongly correlated with each other. None of them has a generally recognized operational definition. They are usually treated as latent constructs that can manifest themselves in different ways and have different empirical indicators.

Social capital, adopted as the first element of the region's social potential, is a broad and multidimensional category⁴. Its essence is team competitiveness based on mutual relations of group members. In the presented concept, the approach of Robert Putnam [Putnam 2001, 2015] was adopted in order to express social capital. According to this author, social capital is the relationship between individuals (social networks, norms of reciprocity) and the trust that grows out of them. The selection of indicators for diagnosing social capital was also based on the approach of Francis Fukuyama [2001], Jacek Czapiński [2008]

⁴ In the research carried out for the project „Dialog”, social capital was expressed in a broad definition perspective based on the answers of respondents given in the research questionnaire in five dimensions, i.e., with others – social networks; social activity; civic commitment and the willingness to act for the general public; a sense of influence on reality; trust in others.

and Jacek Czapiński and Tomasz Panek [2015], the conceptual model of social capital by Wim van Oorschot, Wil Arts and John Gelissen [2006] and the methodology of the World Bank. It is worth noting that, in this article, the authors decided to adopt a narrow definition of social capital, interpreting it only in a formal dimension⁵. It was assumed that formal social capital is connected with commitment in voluntary and unpaid activities for the benefit of others declared by respondents. This dimension of social capital was assessed on the basis of the respondents' answers to 4 research questions concerning: devoting one's own time to unpaid and voluntary social activity during the last year, membership in social organizations, the degree of involvement in the activities of a social organization and the declared number of organizations whose respondents are formal (actual) members. The collected and structured analytical material constituted the basis for the construction of the formal social capital index (FSCI), assuming values from 0 to 1. On its basis, the level and differentiation between the communes of the analysed region was assessed.

Human capital, as the second component of social potential, is defined by individual competitiveness based on intellectual, motivational and symbolic resources (e.g., prestige). The selection of indicators for its expression was based on the concept of Dorota Węziak-Białowolska [Węziak-Białowolska 2011], Jacek Czapiński [Czapiński 2008, 2015] and the methodology of the World Bank (HCI). This approach is consistent with the classical theories of Gary Becker (1964), Theodore Schultz [1961] and Jacob Mincer [1974], which express human capital in a narrow definition, reducing it to education (level of education and work experience (job seniority)). In order to measure human capital, the following indicator variables were used:

- education – measured by the number of years of study (i.e., the number of years of study);
- civilization competences – it has been assumed that they are manifested by the use of a computer at work and at home, as well as the declared proficiency in English;
- continuing education and training – the measurement was carried out on the basis of answers to the question about improving professional qualifications or other skills in the last two years (training).

Based on the above variables, a synthetic index of human capital (HCI) was created. It is worth noting that this index has no minimum or maximum value, and the zero value determines its centre point. Thus, it takes both positive and negative values. The higher the average level of the index, the higher the level of human capital in a given community.

The indexes of human capital (HCI) and formal social capital (FSCI) used to diagnose and assess the differentiation of social potential were estimated individually for each of the functional type of communes identified in the typology. The diagnosis was carried out in randomly selected communes of Middle Pomerania using the CAPI and CAWI methods on a representative sample of $N = 1,121$ adult inhabitants of the region, taking into account

⁵ The decision to adopt such an approach was dictated by the breadth of this category and, at the same time, the limited possibilities of presenting all research results in one article.

the assumption of heterogeneity of communes. The assessment of differences in the area of social potential was carried out considering five types of communes distinguished in the typology of communes in the region of Middle Pomerania.

EFFECTS OF THE CLASSIFICATION OF PERIPHERAL AREA COMMUNES – AN EXAMPLE OF MIDDLE POMERANIA

Although Middle Pomerania is not an administratively separated region, the common history of its communes and their socio-economic features make it possible to treat it as a heterogeneous area with remarkably peripheral features. The region accepted for analysis has the following characteristics:

- it is an area that is underdeveloped, as compared to other regions in Poland, with a low level of socio-economic development, where restructuring processes favouring overcoming marginalization and underdevelopment take place slowly [Rosner, Stanny 2017];
- it is a peripheral area with weak and very weak transport connections with larger urban centres [MRR 2012, Śleszyński, Komornicki 2016, Gibas, Heffner 2018];
- it is an area dominated by communes with an intensively and moderately developed agricultural function and extensive development (forest functions, nature protection) [Śleszyński, Komornicki 2016];
- it is a region with limited access to urban labour markets, education and other public services [Marchlewski, Bobrowski 2011, Rosik et al. 2017, Komornicki 2019];
- it is a transport excluded area, with low transport and road accessibility, poorly developed rail and road transport - measured by the longest travel time in Poland to selected regional urban centres - over 120 minutes [Komornicki et al. 2018, Rosik et al. 2018, Komornicki 2019];
- it is an area of high social inactivity of residents in the public [Psyk-Piotrowska 2004] and professional life of residents [Bański, Mazur 2009];
- it is a region with a low population status, a low population density and a tendency for the permanent outflow of people, especially young people [Rosner 2012, Bański, Mazur 2009];
- it is a place with a low level of human capital with a high risk of drainage of valuable human resources [Klonowska-Matynia 2017, 2019] and low social capital [Stanny 2011].

It should be added that not all communes included in the region of Middle Pomerania are peripheral communes. However, most of them struggle with numerous associated deficits typical for this category of areas [cf. Śleszyński et al. 2017a, 2017b]. The so-called former state-owned communes, the concentration of which in this part of the country is relatively

Table 1. Typology (classification) of peripheral communes on the example of Middle Pomerania

Conventional name for the type of communes in the area of Middle Pomerania	Characteristics of commune types
Peripheral ¹	It is the most numerous group of communes with a low population density, high long-term unemployment and a large number of people benefiting from social assistance. The dominant share of the agricultural function, the lowest share of industry and other economic activities in comparison to other communes is noticeable there
Functional-transitional ²	The second largest group of communes operationally defined as functional-transitional communes. Similarly to peripheral communes, it is characterized by a predominant share of the agricultural function in the local economy and a large number of social assistance clients. A feature that distinguishes it from the peripheral type is industrial (agri-food) processing, which plays an important role in the economy of this type of communes and agriculture
Touristic ³	Communes located in the coastal belt with a dominant tourist function and a high share of tourist entities. The economic structure of communes shows a very low share of agriculture, industrial processing and warehouse management
Functional-urban ⁴	It includes communes located in the immediate vicinity of large and medium-sized cities (the suburbia of region capitals) which are strongly functionally related to them. They are characterized by a high share of business support institutions from section M and a relatively large share of entities from section H (transport and warehouse management)
Large and medium-sized cities ⁵	It is a group of communes with the highest degree of urbanization. It includes former voivodeship cities (region capitals) that are socio-economic centres for remaining areas and medium-sized cities. This group has a high share of services and business support institutions from section M (professional, scientific and technical activities)

¹ Czarna Dąbrówka (2), Trzebielino (2), Konarzyny (2), Czarne (3), Debrzno (3), Cewice (2), Dębica Kaszubska (2), Białogard (2), Karlino (3), Tychowo (3), Kalisz Pomorski (3), Wierzychowo (2), Złocieniec (3), Bobolice (3), Polanów (3), Malechowo (2), Postomino (2), Barwice (3), Biały Bór (3), Borne Sulnowo (3), Grzmiąca (2), Szczecinek (2), Brzeźno (2), Połczyn-Zdrój (3), Rąbino (2), Świdwin (2), Tuczno (3).

² Borzytuchom (2), Kołczygłowy (2), Lipnica (2), Miastko (3), Parchowo (2), Studzienice (2), Tuchomie (2), Brusy (3), Czersk (3), Koczala (2), Rzeczenica (2), Nowa Wieś Lęborska (2), Wicko (2), Główny (2), Kępice (3), Smołdzino (2), Czaplinek (3), Gościno (2), Rymań (2), Będzino (2), Sławoborze (2), Człopa (3), Mirosławiec (3), Wałcz (2).

³ Łeba (1), Ustka (2), Kołobrzeg (2), Ustronie Morskie (2), Mielno (3), Darłowo (1), Darłowo (2)

⁴ Bytów (3), Chojnice (2), Człuchów (2), Przechlewo (2), Damnica (2), Kobylnica (2), Potęgowo (2), Słupsk (2), Drawsko Pomorskie (3), Dygowo (2), Siemysł (2), Biesiekierz (2), Manowo (2), Sianów (3), Świeszyno (2), Sławno (2).

⁵ Chojnice (1), Człuchów (1), Lębork (1), Ustka (1), Słupsk (1), Białogard (1), Kołobrzeg (1), Sławno (1), Szczecinek (1), Świdwin (1), Wałcz (1), Koszalin (1)

Source: own elaboration

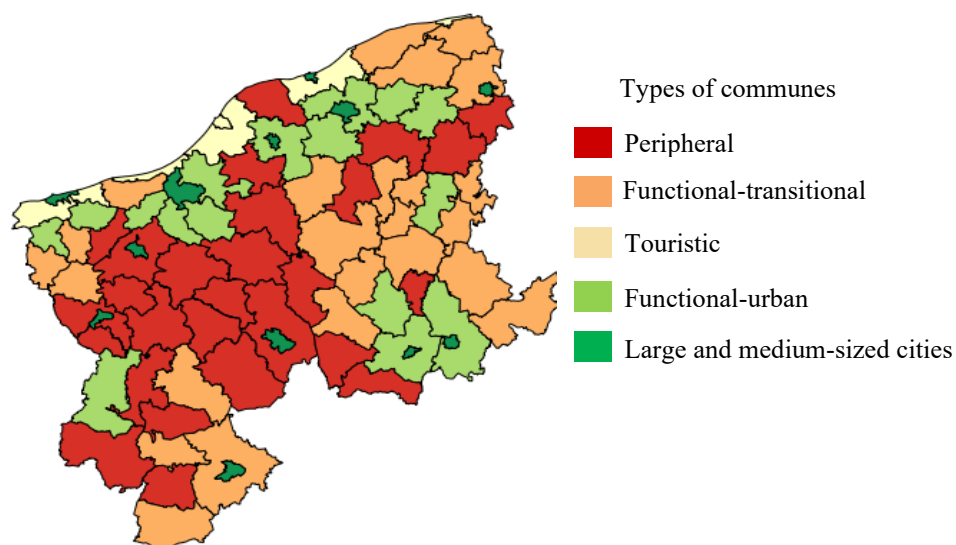


Figure 1. Functional typology of Middle Pomerania communes – a territorial approach

Source: own elaboration

high (especially in the West Pomeranian Voivodeship), deserve special attention. Most of the typical problems faced by their inhabitants are of a permanent and generational nature. In the case of these communes, the phenomenon of exclusion from the labour market, educational exclusion, and more broadly – exclusion from active participation in cultural, social and political life is discussed. The degradation of the individual is not only of economic nature, but concerns the entirety of existence and cultural conditions [Urbański 2014, p. 54]. The inhabitants of Middle Pomerania form a new sociological group – a social class devoid of prosperity and life promotion. The concept that functioned in the 1990s and defined this group as underclass now takes on a new name: precariat [Urbański 2014, Kopycińska, Kryńska 2016, Kopycińska 2018].

In order to obtain knowledge about the existing structural and functional differences within the analysed peripheral area, communes in the region of Middle Pomerania were classified into five characteristic types. According to the authors' assumptions, they are essential for the identification of local potential and can be used to develop an individual, unique concept of development. As a result of the procedure used, 5 different types of functional communes were distinguished for the peripheral area under study (Table 1).

As expected, the typology carried out revealed existing internal structural and functional differences between the communes of the peripheral area under analysis. This was a premise for further research to diagnose local social potential, which, according to the authors, is also heterogeneous.

DIAGNOSIS AND ASSESSMENT OF DIFFERENCES OF SOCIAL POTENTIAL IN A PERIPHERAL AREA – SELECTED RESEARCH RESULTS FOR MIDDLE POMERANIA

The analysis of the values of the formal social capital index (FSCI), estimated individually for each type of functional commune in Middle Pomerania, shows that it is the highest in the transitional communes (0.35) and the lowest in the functional-urban communes (0.21). At the same time, it is noted that, in large and medium-sized cities and touristic communes, the values of social capital do not reach higher values (0.23). In order to verify whether the differences in the level of formal social capital between particular types of communes in the analysed region are statistically significant, the one-way ANOVA and the two-tailed column means test with Bonferroni correction were used. The obtained results of statistical tests showed that formal social capital (FSCI) significantly differentiates communes of the transitional type from functional-urban communes as well as from large and medium-sized cities. The other differences are not statistically significant (Table 2).

In the next stage of the research, the values of the formal social capital index (FSCI), based solely on three segments of respondents, were analysed. Such a procedure was to illustrate the existing spatial differentiation in the studied sample. The conducted χ^2

Table 2. Differentiation of formal social capital in communes of various types

Commune type	Formal social capital (FSCI) – characteristics				
	N	SD	min	max	average level of the index (M)*
(A) Large and medium-sized cities	472	0.34493	0.00	1.00	0.23
(B) Functional-urban	149	0.32138	0.00	1.00	0.21
(C) Peripheral	246	0.33216	0.00	1.00	0.26
(D) Functional-transitional	223	0.35199	0.00	1.00	0.35 A B
(E) Touristic	30	0.33426	0.00	1.00	0.23

* The significance level for one-way ANOVA 0.001. The results are based on two-tailed tests, assuming equality of variance. For each significant pair, the minor category key appears in the larger mean category. The significance level for types of communes marked with capital letters (A, B, C): 0.05. Tests are adjusted for all pairwise comparisons within each internal suitable using the Bonferroni correction

Source: own elaboration based on the proprietary questionnaire survey

Table 3. The level of formal social capital broken down by types of communes

Formal social capital level	Large and medium-sized cities (A)	Functional-urban (B)	Peripheral (C)	Functional-transitional (D)	Touristic (E)
	N = 472	N = 149	N = 246	N = 223	N = 30
	%				
None	65.7 D	64.4 D	55.3	44.4	60.0
Marginal	11.0	14.1	19.5 A	18.8 A	20.0
Existing	23.3	21.5	25.2	36.8 A B	20.0

The results are based on two-tailed tests. For each significant pair, the category with the smaller column proportion appears under the category with the larger column proportion. The significance level for capital letters (A, B, C): 0.05. Significance level for Pearson's $\chi^2 = 0.000$. The tests are adjusted for all pairwise comparisons within each internal subtable using the Bonferroni correction

Source: own elaboration based on the proprietary questionnaire survey

test confirmed the existence of a statistically significant relationship between the level of formal social capital and the type of commune. In turn, the two-tailed column means test highlighted these differences.

In view of the above, the previously demonstrated difference between the level of formal social capital in transitional communes and its level in functional and urban communes as well as in large and medium-sized cities was confirmed. Moreover, a statistically significant difference in the social formal capital index of trace level was verified between peripheral communes (19.5%) and large and medium-sized cities (11%). The highest rate of people significantly involved in social activities is characteristic of transitional communes (36.8%), which, at the same time, have the lowest rate of people with a zero level of formal capital (social involvement) (Table 3).

When assessing the degree of commune diversification in terms of the second component of the region's social potential – human capital, it was observed that its linear index (HCI) was negative in peripheral/deficit (-0.24) and transitional communes (-0.03). According to the adopted characteristics, these are communes with a high level of long-term unemployment, a large number of social assistance clients and mainly agricultural. The negative level of the human capital index (HCI) for these communes seems to be justified by the specificity of these areas experiencing strong depreciation of human resources. In the remaining three types of communes, the human capital index had a positive value. Its highest level was recorded in large and medium-sized cities (average 0.12). Developed services and business environment institutions, which are a defining

Table 4. Differentiation of human capital in communes of various types (HCI).

Commune type	Human Capital (HCI) – characteristics				
	N	SD	min	max	average level of the index (M)*
Large and medium-sized cities	472	0.95232	-2.96	1.49	0.12 C
Functional and urban	149	0.89122	-2.96	1.49	0.03
Peripheral	246	1.08784	-3.15	1.11	-0.24
Functional-transitional	223	1.04862	-2.94	1.11	-0.03
Touristic	30	0.81702	-1.91	0.97	0.06

* The significance level for one-way ANOVA 0.001

Source: own elaboration based on the proprietary questionnaire survey

element of this type of commune, favour the development of specialist knowledge, skills and possibilities of people living there. Thus, in terms of the level of human capital, the communes of Middle Pomerania can be ranked in the following hierarchy: large and medium-sized cities, touristic communes, functional-urban communes, transition communes and finally: peripheral/deficit communes (Table 4).

In order to verify whether the differences in the level of human capital between particular types of communes in Middle Pomerania are statistically significant (similarly to the formal social capital analysis), the one-way ANOVA and the two-tailed column means test with Bonferroni correction were used. The test results showed that the human capital of communes of Middle Pomerania is statistically significantly differentiated between communes of the peripheral/deficit type and large and medium-sized cities. The differences between the human capital index in the remaining types of the examined communes turned out to be statistically insignificant.

DISCUSSION

This article is a response to the existing theoretical and empirical gap in the typology of peripheral communes and the study of their social potential. The authors assumed, as a starting point in their considerations, that two key elements may decide about development initiatives in such places – i.e., features embodied in people, the inhabitants of a given commune (human capital) and the network of relations existing there, social activity and trust (social capital). Together, they create the social potential of the region, which, being its endogenous resource (capital), determines the possibilities of using local development potential and discovering new ones.

In the course of analyses and deliberations carried out in the work, the authors confirmed the thesis that peripheral areas are characterized by internal differentiation. The typology of the communes of Middle Pomerania, which is an exemplification of the assumed thesis stating that peripheral areas are characterized by internal diversification, revealed five different types of functional and structural units in its area, such as: peripheral communes, functional and transitional communes, touristic communes, functional communes as well as large and medium-sized cities. This means that communes in the peripheral area, treated as a set of units similar to each other, have locally different potentials. It is an important observation in the context of the thesis verified by the authors, which made it possible to assume the existence of this differentiation.

Empirical research has proven that Middle Pomerania has internally diversified social potential. It is generally characterized by a low level of human capital with a simultaneous, relatively well-assessed, level of social capital. This means that its inhabitants are characterized by a low level of knowledge, qualifications and skills necessary to function on the labour market. At the same time, they show greater social activity (expressed as formal social capital).

When making an in-depth spatial analysis of social potential in a peripheral area, its intra-regional heterogeneity is noticeable. Diversity is noted mainly between city – peripheral village (deficit). Deficit areas are those places in the studied region that are characterized by significant social deficiencies, including high unemployment or a strong dependence of residents on the social welfare system. These are communes with a particularly unfavourable geographic location and distant from the regional centres of socio-economic as well as political and administrative life (i.e., the so-called capitals of the region). Some of them are located at the border of administratively separated areas (voivodeships). Due to the physical distance, low quality of technical and social infrastructure, including local infrastructure, and the social problems occurring there, human capital “encounters” obvious barriers in these places and, thus, is characterized by a lower level, as compared to other types of communes located in the peripheries.

At the same time, however, the obtained research results showed that the inhabitants assessed the level of the second component of social potential, i.e., social capital (expressed as formal social capital) as relatively satisfactory in the deficit communes of Middle Pomerania. These communes, despite the proven lowest level of human capital in Pomerania, are characterized by a relatively higher (as for these places) percentage of people willing and inclined to social activity. This result was certainly influenced by the duration of empirical research during the pandemic period. It was then (especially in its initial phase) that proactive social attitudes naturally emerged in many communities in Poland. Perhaps the satisfactory assessment of social capital “in the periphery of the periphery” by the inhabitants also results from the fact that the specificity and problems

of such communes may be treated as stimulants of social activity by a certain group of inhabitants. Similar attitudes were revealed during the first wave of the COVID pandemic, when a significant part of Polish society followed the maxim – “the more difficult it is for us, the more we become active around solving our common, difficult situation”. Noticeably, this process was carried out at a different pace and with varying intensity in various places in the region of Middle Pomerania.

CONCLUSIONS

To sum up, the region of Middle Pomerania is characterized by the internal diversification of communes in terms of functionality and structure. Moreover, each type of commune, determined in the analytical process, has a separate, specific social potential (expressed by the level of social and human capital). The effective use of this potential may contribute to the initiation of innovative development processes.

In the opinion of the authors, the awareness and knowledge of the existence of internal differences in the social potential of communes in the peripheral area triggers the need to correct the local development policy and support system. It is suggested to use locally differentiated instruments and development programs adjusted to the socio-economic potential that are owned by particular types of communes located in the peripheral area. It seems important to define a separate development path, adequately to the possibilities that the specific communes in peripheral regions have as well as what their spatially differentiated social potential offers them.

It is worth mentioning that the obtained research results are preliminary and require confirmation in further empirical proceedings, undertaken both in Middle Pomerania and in relation to other peripheral areas in Poland.

BIBLIOGRAPHY

- Bański Jerzy. 2002. *Typy ludnościowych obszarów problemowych* (Population-related problem areas by type). *Studia Obszarów Wiejskich* 2: 41-52.
- Bański Jerzy, Marcin Mazur. 2009. Identification of areas with a strong concentration of social problems. *Rural Studies* 16: 79-95.
- Becker Gary. 1964. *Human capital theory*. New York: Columbia University Press.
- Churski Paweł. 2004a. *Obszary problemowe w Polsce z perspektywy celów polityki regionalnej Unii Europejskiej* (Problem areas in Poland from perspective regional policy objectives European Union). Włocławek: Wyższa Szkoła Humanistyczno-Ekonomiczna we Włocławku.

- Churski Paweł. 2004b. Struktura społeczno-gospodarcza obszarów problemowych w Unii Europejskiej i Polsce w świetle unijnej polityki regionalnej (Socio-economic structure of problem areas in the European Union and Poland in the light of EU regional policy). *Przegląd Geograficzny* 76: 189-208.
- Churski Paweł. 2008. Czynniki rozwoju regionalnego i polityka regionalna w Polsce w okresie integracji z Unią Europejską (Factors of regional development and regional policy in Poland in the period of integration with the European Union). Poznań: Wydawnictwo Naukowe UAM.
- Coleman James S. 1988. Social capital in the creation of human capital. *American Journal of Sociology* 94: S95-S120.
- Copus Andrew, Demetrios Psaltopoulos, Dimitris Skuras, Ida Terluin. 2008. *Approaches to rural typology in the European Union*. Luxembourg: Office for Official Publications of the European Communities.
- Czapiński Jacek. 2008. Kapitał ludzki i kapitał społeczny a dobrobyt materialny. Polski paradoks (Human and Social Capitals as Sources of Economic Well-Being. Polish Paradox). *Zarządzanie Publiczne/Public Governance* 2 (4): 5-28.
- Czapiński Jacek, Tomasz Panek. 2015. *Diagnoza społeczna 2013. Warunki i jakość życia Polaków* (Social diagnosis 2013. Poles' life conditions and quality. Report). Warszawa: Rada Monitoringu Społecznego.
- ESPON 2013. *Inner peripheries: a socio-economic territorial specificity*. GEOSPECS (ESPON Project), <https://www.espon.eu/programme/projects/espon-2013/appliedresearch/geospecs-geographic-specificities-and-development>, access: 19.04.2020.
- ESPON 2017. *Final Report. PROFECY – Processes, Features and Cycles of Inner Peripheries in Europe. Inner Peripheries: National territories facing challenges of access to basic services of general interest*, <https://www.espon.eu/inner-peripheries>, access: 19.04.2020.
- ESPON 2018. *Inner peripheries in Europe. Possible development strategies to overcome their marginalising effects*, <https://www.espon.eu/sites/default/files/attachments/ESPON-Policy-Brief-InnerPeripheries.pdf>, access: 19.04.2020.
- Fukuyama Francis. 2001. *Social capital, civil society and development*. *Third world quarterly* 22(1): 7-20.
- Gibas Piotr, Krystian Heffner. 2018. Koncentracja zabudowy na obszarach wiejskich (Housing Density in Rural Areas). *Wieś i Rolnictwo* 2 (179): 189-207.
- Gorzelak Grzegorz. 2004. Poland's regional policy facing the differentiation of the Polish space. *Studia Regionalne i Lokalne* 5 (18): 37-72.
- Grosse Tomasz G. 2007a. Wybrane koncepcje teoretyczne i doświadczenia praktyczne dotyczące rozwoju regionów peryferyjnych (Theory and Practice of Development of Peripheral Regions). *Studia Regionalne i Lokalne* 8 (27): 27-49.
- Grosse Tomasz G. 2007b. *Innowacyjna gospodarka na peryferiach?* (An innovative economy in the periphery?). Warszawa: Fundacja Instytutu Spraw Publicznych.
- Halfacree Keith H. 1993. Locality and social representation: space, discourse and alternative definitions of the rural. *Journal of Rural Studies* 9 (1):23-37.

- Hall Colin. 1994. *Tourism and politics: Policy, power and place*. Chichester: Wiley.
- Hospers Gert Jan. 2002. Industrial heritage tourism and regional restructuring in the European Union. *European Planning Studies* 10 (3): 397-404.
- Hospers Gert Jan. 2006. Silicon somewhere? Assessing the usefulness of best practices in regional policy. *Policy Studies* 27 (1): 1-15.
- Keane Michael. 1992. Rural tourism and rural development. [In] *Tourism and the Environment*, ed. Helen Briassoulis, Jan van der Straaten, 43-55. Springer: Dordrecht.
- Klonowska-Matynia Maria. 2017. Czynniki edukacyjne a przestrzenne rozmieszczenie kapitału ludzkiego na obszarach wiejskich w Polsce (Educational Factors and Spatial Distribution of Human Capital in Rural Areas in Poland). *Acta Universitatis Lodziensis. Folia Oeconomica* 1 (327): 107-127.
- Klonowska-Matynia Maria. 2019. Przestrzenna analiza kapitału ludzkiego w obszarze zdrowia w Polsce w powiązaniu z sytuacją społecznoekonomiczną w regionach (Spatial analysis of human capital in the area of health in Poland in connection with the socio-economic situation in the regions). *Acta Universitatis Lodziensis. Folia Oeconomica* 4 (343): 159-180.
- Komornicki Tomasz. 2019. *Polska sprawiedliwa komunikacyjnie* (Communication fair Poland). Warszawa. Fundacja im. Stefana Batorego.
- Komornicki Tomasz, Piotr Rosik, Marcin Stępnia, Przemysław Śleszyński, Sławomir Goliszek, Wojciech Pomianowski, Karol Kowalczyk. 2018. *Evaluation and monitoring of accessibility changes in Poland*. Warsaw: Ministry of Investment and Economic Development.
- Komornicki Tomasz, Przemysław Śleszyński. 2009. Typologia obszarów wiejskich pod względem powiązań funkcjonalnych i relacji miasto-wieś. *Studia Obszarów Wiejskich*, 16: 9-37.
- Kopczyńska Danuta. 2018. Popegeerowskie powiaty – prekariat w województwie zachodniopomorskim (Post-State farm poviats-precariat in the West Pomeranian Voivodeship). *Studia i Prace WNEiZ US* 51 (3): 185-196.
- Kopczyńska Danuta, Elżbieta Kryńska. 2016. The precariat in the labour market in Poland – social and economic aspect. *Journal of International Studies* 2 (9):79-89.
- Kowalczyk Lucjan. 2002. Znaczenie potencjału społecznego w strategiach rozwoju terytorialnego (The meaning of social potential for the strategies of territorial development). *Zeszyty Naukowe WWSZiP* 1: 23-34.
- Kozera Magdalena. 2014. Czy samodegradacja? Pozytywny i negatywny kapitał ludzki. [W] *Życie na skraju – marginesy społeczne wielkiego miasta* (Self-degradation? Positive and negative human capital. [In] *Living on the edge - the social margins of a big city*), ed. Z. Galor, B. Goryńska-Bittner, S. Kalinowski, 201-212. Bielefeld: Societas Pars Mundi Publishing.
- Mazur Marcin, Jerzy Bański, Konrad Czapiewski, Przemysław Śleszyński. 2015. Wiejskie obszary funkcjonalne – próba metodyczna wyznaczenia ich obszarów i granic (Rural functional areas – methodical attempt of determining their areas and boundaries). *Studia Obszarów Wiejskich* 37: 7-36.

- McGregor Sue L. 2020. *Conceptualizing Family Well-being*. McGregor Monograph Series 202001. Seabright, NS: McGregor Consulting Group. www.consultmcgregor.com.
- Milczarek Dariusz. 2005. Potencjał Unii Europejskiej w stosunkach międzynarodowych (część 1) (The Potential of the European Union in International Relations (Part 1)). *Studia Europejskie* 1: 9-29.
- Mincer Jacob. 1974. *Schooling, Experience, and Earnings*. NY: Columbia University Press.
- MRR (Ministerstwo Rozwoju Regionalnego, Ministry of Regional Development) 2012. *Koncepcja Przestrzennego Zagospodarowania Kraju 2030* (National Spatial Development Concept 2030). (ed.) P. Żuber. Warszawa: Ministerstwo Rozwoju Regionalnego.
- Nussbaum Marta, Amartye Sen (eds.). 1993. *The quality of life*. Oxford: Clarendon Press.
- OECD 2009a. *Territorial Reviews. Chile*. Paris: OECD Publishing.
- OECD 2009b. *How Regions Grow. Trends and Analysis*. Paris: OECD Publishing.
- Psyk-Piotrowska Elżbieta. 2004. *Spoleczne konsekwencje przekształceń własnościowych w rolnictwie państwowym* (Social consequences of ownership transformations in state agriculture). Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- Putnam Robert D. 2001. Social capital: Measurement and consequences. *Canadian Journal of Policy Research* 2 (1): 41-51.
- Putnam Robert D. 2015. Bowling alone: America's declining social capital. [In] *The city reader*, ed. R. Putnam, 188-196. Routledge.
- Romer Paul M. 1990a. Endogenous technological change. *Journal of Political Economy* 98 (5): 71-102.
- Romer Paul M. 1990b. *Human Capital and Growth: Theory and Evidence*. [In] Carnegie-Rochester Conference Series on Public Policy. Spring, 32, 25186.
- Rosik Piotr, Tomasz Komornicki, Marcin Mazur, Wojciech Pomianowski, Marcin Stępiak, Sławomir Goliszek. 2017. Multimodalna dostępność transportem publicznym gmin w Polsce (MULTIMODACC). *Prace Geograficzne*. (Multimodal public transport accessibility of Polish gminas/municipalities (MULTIMODACC.) *Geographical Studies*). Warszawa: IGiPZ PAN.
- Rosik Piotr at al. 2018. *Dostępność gmin transportem autobusowym* (Bus accessibility of polish gminas). *Prace Komisji Geografii Komunikacji PTG* 21 (1): 54-64.
- Rosner Andrzej. 2012. *Zmiany rozkładu przestrzennego zaludnienia obszarów wiejskich* (Variations in spatial distribution of population in rural areas). Warszawa: IRWiR PAN.
- Rosner Andrzej, Monika Stanny. 2017. *Socio-economic development of rural areas in Poland*. Warszawa: The European Fund for the Development of Polish Villages Foundation (EFRWP) Institute of Rural and Agricultural Development, Polish Academy of Sciences (IRWIR PAN).
- Schultz Theodore W. 1961. Investment in human capital. *The American Economic Review* 51 (1): 1-17.

- Stanny Monika. 2011. Typologia wiejskich obszarów peryferyjnych pod względem anatomii struktury społeczno-gospodarczej (A Typology of Rural Peripheral Areas in Poland – Anatomy of the Socio-Economic Structure). *Wies i Rolnictwo*, 151(2): 59-75.
- Stanny Monika. 2012. Modele funkcjonalne wiejskich obszarów peryferyjnych w Polsce (Functional models of peripheral rural areas in Poland). *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu* 14(4): 110-114.
- Śleszyński Przemysław, Jerzy Bański, Marek Degórski, Tomasz Komornicki. 2017a. Delimitation of problem areas in Poland. *Geographia Polonica* 90 (2): 131-138.
- Śleszyński Przemysław, Jerzy Bański, Marek Degórski, Tomasz Komornicki. 2017b. *Delimitacja obszarów strategicznej interwencji państwa: obszarów wzrostu i obszarów problemowych: Delimitation of the state intervention strategic areas: growth areas and problem areas*. Warszawa: IGiPZ PAN.
- Śleszyński Przemysław, Tomasz Komornicki. 2016. Klasyfikacja funkcjonalna gmin Polski na potrzeby monitoringu planowania przestrzennego (Functional classification of Poland's communes (gminas) for the needs of the monitoring of spatial planning). *Przegląd Geograficzny* 88 (4): 469-488.
- Synówka-Bejenka Ewa. 2017. Potencjał turystyczny województw Polski (Tourist potential of Polish voivodships). *Wiomości Statystyczne. The Polish Statistician* 62 (7): 78-92.
- Tödtling Franz. 2010. *Endogenous approaches to local and regional. Handbook of local and regional development*. London, New York: Routledge.
- Urbański Jarosław. 2014. *Prekariat i nowa walka klas*. Warszawa: Książka i Prasa.
- Van Oorschot Wim, Wil Arts, John Gelissen. 2006. Social Capital in Europe. Measurement and Social and Regional Distribution of a Multifaceted Phenomenon. *Acta Sociologica* 49 (2): 149-167.
- Węziak-Białowolska Dorota. 2011. Ocena kapitału ludzkiego oraz jego zróżnicowanie demograficzne, społeczne i ekonomiczne w Polsce i województwie podkarpackim – analiza porównawcza (The human capital of different socio-economic groups in Poland and in the Podkarpackie Voivodeship). *Studia Regionalne i Lokalne* 12 (44): 41-57.
- World Bank. 2021. *Human Capital Index (HCI). Data Catalog*, worldbank.org. access 15.07.2021.
- Xie Philip F. 2006. Developing industrial heritage tourism: A case study of the proposed jeep museum in Toledo, Ohio. *Tourism Management* 27 (6): 1321-1330.

ZRÓŻNICOWANIE POTENCJAŁU SPOŁECZNEGO NA OBSZARZE PERYFERYJNYM – PRZYKŁAD GMIN POMORZA ŚRODKOWEGO

Słowa kluczowe: obszary peryferyjne, typologia, potencjał społeczny, zróżnicowanie, Pomorze Środkowe

ABSTRAKT

Celem artykułu jest diagnoza i ocena zróżnicowań pod względem potencjału społecznego wewnątrz obszaru peryferyjnego. Do analizy przyjęto obszar Pomorza Środkowego. Przeprowadzono typologię gmin tego regionu, służącą potwierdzeniu tezy o istniejących wewnętrznych zróżnicowaniach pod względem struktury i dominujących funkcji gospodarczych. Ujawniono pięć odmiennych typów funkcjonalnych, tj. gminy peryferyjne, funkcjonalno-przejęciowe, turystyczne, funkcjonalno-miejskie oraz duże i średnie miasta. Typologię poddano ocenie pod kątem przydatności poznawczej i praktycznego wykorzystania w diagnozie i ocenie zróżnicowań lokalnych potencjałów społecznych. W toku rozważań weryfikowano hipotezę, że możliwe jest wyodrębnienie na obszarze peryferyjnym względnie jednorodnych wewnętrznie, ale heterogenicznych względem siebie, typów gmin oraz zidentyfikowanie dla każdego z nich lokalnych potencjałów społecznych, służących tworzeniu tzw. masy krytycznej inicjującej ich procesy rozwojowe. Do przeprowadzenia typologii gmin Pomorza Środkowego wykorzystano dane wtórne z Banku Danych Lokalnych. W przyjętym podejściu badawczym potencjał społeczny wyrażono w postaci konstruktów latentnych dla kapitału ludzkiego i kapitału społecznego. Posłużono się indeksem kapitału ludzkiego (IKL) oraz indeksem kapitału społecznego formalnego (IKS_f), obliczonych indywidualnie dla każdego typu funkcjonalnego gmin. Diagnozę potencjału społecznego przeprowadzono w okresie od lipca do sierpnia 2020 roku, w drodze sondażu diagnostycznego metodami CAPI i CAWI na losowej, reprezentatywnej próbie N = 1121. Analizę i ocenę istniejących zróżnicowań potencjału społecznego przeprowadzono w ujęciu przestrzennym z uwzględnieniem wyłonionych typów gmin dla obszaru peryferyjnego. Wstępne wyniki badań pozwoliły pozytywnie zweryfikować przyjętą hipotezę. Każdy z wyodrębnionych typów funkcjonalnych gmin badanego obszaru peryferyjnego cechuje się różnym poziomem potencjału społecznego.

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