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RELATIONSHIPS BETWEEN SOCIAL CAPITAL AND SOCIO-ECONOMIC DEVELOPMENT BASED ON RURAL COMMUNES IN THE WARMIŃSKO-MAZURSKIE VOIVODESHIP

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Abstract. The aim of this article is to assess the impact of social capital on socio-economic development of rural communities in the Warmia and Mazury Province. In the course of the study two synthetic indicators were calculated with the use of the TOPSIS method. One characterised social capital, the other the level of socio-economic development. The data used to determine the indicators (characterizing social capital and socio-economic development) were obtained from the Local Data Bank of the Central Statistical Office and the National Electoral Commission for 67 rural communities from the Warmińsko-mazurskie voivodeship. Subsequently, linear ordering of the examined units was conducted and typological classes (I–IV) were determined, characterising the level of both analysed indicators. It was established that rural communities in the Warmińsko-mazurskie voivodeship do not show a large variation in terms of socio-economic development and social capital. Then, the relation between social capital and the level of socio-economic development was studied. As shown by statistical analysis, there is a positive, but low statistical dependence between the level of social capital and the level of socio-economic development. In turn, in the case of commune division into typological classes, compatibility was found between the discussed indicators, but only for 26 units, which constitutes only 40% of the analysed communes.

Key words: socio-economic development, social capital, TOPSIS, rural communes

INTRODUCTION

All local administration units, including communes, realise their primary objective, i.e. socio-economic development. The concept of development is complex and multifaceted. We most frequently define it as a process of positive changes, covering both quantitative growth and qualitative progress taking place in a given area and affecting the standard of living of the local community as well as conditions for the operations of economic entities (Parysek, 2001; Potoczek, 2003). In turn, socio-economic development at the local level as a complex concept refers not only to economic, political or cultural changes, but also processes taking place in the society (human relations, lifestyle or accepted norms and moral values). Thus it may be stated that it occurs within four spheres: economic, social, political and cultural (Potoczek, 2003). They are not uniform and their functioning is closely interrelated. These dependencies contribute to the creation of a new, sustainable development potential, which may contribute to a more comprehensive satisfaction of needs of the local community and may not cause any negative consequences for the local environment (Szewczuk et al., 2011).

People and their adaptability constitute an important determinant modifying the socio-economic sphere of every local administration unit. A characteristic human

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feature is our social character, manifested among other things in the propensity towards communal life and a real need for such a life, as well as ability for social interactions and thus joint realisation of goals. For this reason such characteristics of local communities as knowledge, competences, ability to cooperate, activity, mobilisation or civic participation may become significant factors affecting the level of local development (Parysek, 2001; Janc, 2009).

According to Coleman (1998), social capital may be defined as "the capacity of human cooperation, which is manifested within groups and organisations and aims at the realisation of common interests". This creates relationships between people based on trust and activity of local residents (Spychalski, 2013), which may be expressed e.g. by the political and social activity of inhabitants in a given local administration unit (Kłosowski and Warda, 2001). Social capital is a non-material resource, manifested in relationships between people and similarly as other forms of capital it influences economic activity. As it was observed by Janc (2009) (after: Portes, 1998), this results from the fact that "while financial capital is found on bank accounts of people and human capital is in their heads, social capital is contained in the structure of their relationships". Thus we may propose a thesis that social capital, defined in a multifaceted manner, has a positive effect on economic growth.

The aim of this paper was to assess the effect of social capital on socio-economic development in rural communes of the Warmińsko-mazurskie voivodeship.

MATERIAL AND METHODS

Both social capital and socio-economic development are multifaceted concepts, which may not be measured or defined using one characteristic. For this reason complex phenomena are characterised using synthetic variables, which may replace a set of many indexes with one synthetic variable (Kuropka, 2001).

In the course of the study two measures were established using the TOPSIS method. One of them characterised social capital, while the other – the standard of socio-economic development in rural communes of the Warmińsko-mazurskie voivodeship.

The TOPSIS method (Technique for Order Preference by Similarity to an Ideal Solution) is a reference method consisting in the calculation of Euclidean distances for each evaluated object (in this case a rural commune) from the best and the worst alternative. The conducted analysis produces a ranking list of evaluated objects based on a synthetic index. The object with the highest standard of development is the object with the shortest distance from the ideal solution and at the same time the longest distance from the worst solution (Hwang and Yoon, 1981; Wysocki, 2010; Huang et al., 2011).

The synthetic measure of the standard of socio-economic development and social capital generated based on TOPSIS was developed applying the following procedure (Wysocki, 2010):

1. Analysis of literature on the subject in terms of the selection of characteristics – indexes of socio-economic development (Bossel, 1999; Borys, 2005; Korol, 2007; Kompa, 2009; Brodziński, 2011; Pawlewicz i Pawlewicz, 2011) and social capital (Janc, 2009; Foxton and Jones, 2011; Sierocińska, 2011). Next, in order to eliminate excessively correlated characteristics diagonal elements of the reverse matrix were analysed, resulting in the elimination from further analyses too strongly correlated variables, i.e. those for which values on the main diagonal exceeded 10. Eventually the following characteristics (indexes) were selected for further studies:

Socio-economic development: x_1 – birth rate per 1000 inhabitants; x_2 – population density; x_3 – gross enrollment ratio – middle school, x_4 – gross enrollment ratio – primary schools; x_5 – outpatient health care institutions per 10 thousand inhabitants; x_6 – proportion of women in council; x_7 – average usable floor area per person; x_8 – area of legally protected areas as % commune area; x_9 – total own revenue of commune per 1 inhabitant; x_{10} – received subsidies to total budget revenue; x_{11} – expenses for culture and protection of national heritage per 1 inhabitant; x_{12} – expenditure for social assistance per 1 inhabitant; x_{13} – assets-related investment expenditure per 1 inhabitant; x_{14} – REGON registered entities per 10 thousand inhabitants; x_{15} – income from agricultural tax per 1 inhabitant; x_{16} – length (km) of operating sewerage system per km^2 area; x_{17} – length of operating water supply system (km) per km^2 area; x_{18} – the proportion of registered unemployed in the working-age population.

Social capital: y_1 – foundations, associations and social organisations per 10 thousand inhabitants; y_2 – participants of events per 1000 inhabitants; y_3 – members of musical ensembles, etc. per 1000 inhabitants; y_4 – members of special-interest groups (clubs) per 1000 inhabitants; y_5 – participation in local government elections.

Indexes were prepared based on data from the Local Data Bank of the Central Statistical Office GUS for 2011 and the National Electoral Commission for 2010.

2. Standardisation of values of characteristics (indexes) using zero unitarization, which consists in the transformation of destimulants to the form of stimulants, thanks to which values of analysed indexes may be compared. This may be done using the following formulas:

Stimulants: $$z_{ik} = \frac{x_{ik} - \min_i \{x_{ik}\}}{\max_i \{x_{ik}\} - \min_i \{x_{ik}\}};$$

Destimulants: $$z_{ik} = \frac{\max_i \{x_{ik}\} - x_{ik}}{\max_i \{x_{ik}\} - \min_i \{x_{ik}\}};$$

3. Determination of coordinates of model units, i.e. a positive model (A^+) and a negative model (A^-) of development according to the following formulas:

$$A^+ = \left(\max_i (z_{i1}), \max_i (z_{i2}), \ldots, \max_i (z_{iK})\right) = \left(z_1^+, z_2^+, \ldots, z_K^+\right)$$

$$A^- = \left(\min_i (z_{i1}), \min_i (z_{i2}), \ldots, \min_i (z_{iK})\right) = \left(z_1^-, z_2^-, \ldots, z_K^-\right)$$

In zero unitarization they take the form:

$$z^+ = \underbrace{(1,1,\ldots,1)}_{K} \quad z^- = \underbrace{(0,0,\ldots,0)}_{K}$$

4. Calculation of Euclidean distances of each evaluated object (in this case commune) from the positive model z^+ and the negative model z^-:

$$d_i^+ = \sqrt{\sum_{k=1}^{K} \left(z_{ik} - z_k^+\right)^2}, \; d_i^- = \sqrt{\sum_{k=1}^{K} \left(z_{ik} - z_k^-\right)^2},$$

$$(i = 1, 2, \ldots, N)$$

5. Calculation of the synthetic value of the characteristic (index):

$$S_i = \frac{d_i^-}{d_i^+ + d_i^-} \text{ while } 0 \le S_i \le 1, \; (i = 1, 2, \ldots, N)$$

Linear ordering of analysed objects (rural communes) and determination of typological classes for social capital and socio-economic development using the arithmetic mean and standard deviation from values of the synthetic measure followed the procedure (Wysocki, 2010):

- $S_i \le \overline{S}_i + s_{si}$ – class I – high level: socio-economic development, social capital
- $\overline{S}_i \le S_i < \overline{S}_i + s_{si}$ – class II – higher medium level: socio-economic development, social capital
- $\overline{S}_i - s_{si} \le S_i < \overline{S}_i$ – class III – lower medium level: socio-economic development, social capital
- $S_i < \overline{S}_i - s_{si}$ – class IV – low level: socio-economic development, social capital

where:

S_i – value of synthetic measure calculated using TOPSIS for socio-economic development; social capital

$\overline{S}_i$ – arithmetic mean of synthetic measure S_i

s_{si} – standard deviation of synthetic measure S_i.

Next statistical analysis for the dependence using Pearson's linear correlation coefficient between synthetic measures of social capital and socio-economic development for the investigated communes was conducted using STATISTICA 10 software. Finally the consistency of typological classes between the discussed measures was analysed.

DISCUSSION AND RESULTS

Socio-economic development

Applying the synthetic measure calculated using TOPSIS rural communes in the Warmińsko-mazurskie voivodeship were ordered in terms of the level of socio-economic development and divided into four classes. Results are given in Table 1.

Values of the synthetic measure of socio-economic development for the analysed units ranged from 0.32 to 0.54. The highest value was recorded for this index in the Stawiguda commune, while it was lowest in the Działdowo commune. Results of this analysis are presented in Fig. 1. Socio-economic development of rural communes in the Warmińsko-mazurskie voivodeship is generally medium: 37% are communes with a lower medium level, while 28% are communes with higher medium level of development.

Class I, representing a high level of socio-economic development, comprises 12 units, which accounts for as little as 18% of analysed rural communes in the Warmińsko-mazurskie voivodeship. In the case of stimulants these communes mostly had higher indexes of partial characteristics in relation to provincial means, while for destimulants they were lower (except for characteristics 5, 6, 10, 12 and 15). The high level of development in these communes was mostly the result of:

Table 1. Number of rural communes in the Warmińsko-mazurskie voivodeship divided into classes of socio-economic development
Tabela 1. Liczba gmin wiejskich województwa warmińsko-mazurskiego w podziale na klasy poziomu rozwoju społeczno-gospodarczego

Specification Wyszczególnienie	Level of socio-economic development Poziom rozwoju społeczno-gospodarczego				Total Razem
	high wysoki	higher-medium średni-wyższy	lower-medium średni-niższy	low niski	
Rural communes Gminy wiejskie	12 (18%)	19 (28%)	25 (37%)	11 (17%)	67 (100%)

Source: own elaboration.
Źródło: opracowanie własne.

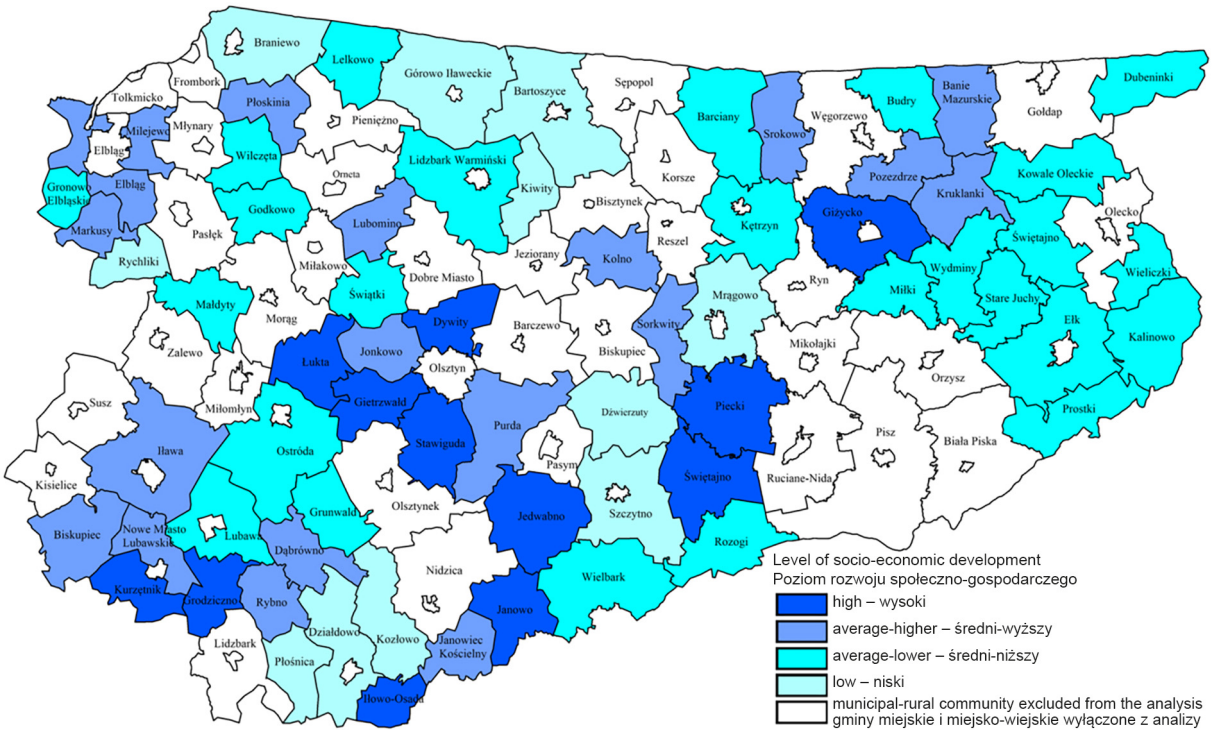

Fig. 1. Classification of rural communities of the Warmińsko-mazurskie voivodeship on the basis of a concise evaluation of the level of socio-economic development
Source: own elaboration.
Rys. 1. Klasyfikacja gmin wiejskich województwa warmińsko-mazurskiego na podstawie syntetycznej oceny poziomu rozwoju społeczno-gospodarczego
Źródło: opracowanie własne.

- finances of the communes, which had high own revenue and high investment expenditure, as well as expenditure for culture and protection of national heritage,
- demographics, with higher than average birth rates and high population density,
- education standard expressed in high values of gross enrollment ratios for both analysed education levels,

- entrepreneurship of inhabitants manifested in the high number of economic entities and a lower than the provincial average proportion of registered unemployed,
- technical infrastructure facilities manifested in the high area of the communes with the operating sewerage system.

It needs to be stressed that these communes are located in the immediate vicinity or at a small distance from a city such as Olsztyn (provincial capital) or towns such as Giżycko, Mikołajki, Nidzica or Ruciane-Nida. They are located at important traffic routes – national or regional roads, which may influence the level of development in these communes.

It is a satisfactory finding that the lowest number, only 17%, were the communes with a low level of socio-economic development. The main problems for the communes with a low level of socio-economic development included low own revenues and low investment expenditure, as well as expenditure for social assistance and culture and protection of national heritage, being lower than the provincial average, as well as the very low number of economic entities in the REGON register and a high proportion of registered unemployed.

Social capital

Similarly as in the analysis of the level of socio-economic development, the rural communes of the Warmińsko-mazurskie voivodeship were ordered in terms of their level of social capital and they were divided into four classes. Results are given in Table 2. Analysis of these results shows that the standard of social capital in these communes, similarly as in the case of the level of socio-economic development, is medium in most cases.

Values of the synthetic measure for the level of social capital in the rural communes of the Warmińsko-mazurskie voivodeship ranged from 0.13 for the communes of Wielbark and Kętrzyn to 0.63 for the Giżycko commune. The spatial distribution of social capital is presented in Fig. 2.

Results of this analysis show that almost half of the investigated communes (46%, i.e. 31 communes) are classified to class III, representing the lower medium level of social capital. Class II comprises 30% (20 communes) with a higher medium level of development, while class I – 13% analysed communes (9 communes) with a high level of development. Communes from class I have higher than the provincial averages numbers of foundations, associations and social organisations per 10 thousand inhabitants, as well as a considerable participation in local government elections. We also need to stress the fact that in most these communes social activity expressed in the number of members of musical ensembles, etc., as well as special-interest groups and clubs per 1000 inhabitants exceed the provincial means.

It also needs to be stressed that only 7 communes (11% analysed units) were classified to class IV, i.e. those with a very low level of social capital. This was mainly the consequence of the low participation in elections for the commune inhabitants, as well as the much lower than the average number of foundations, associations and social organisations per 10 thousand inhabitants.

Next the statistical dependence between investigated variables was analysed. The correlation index for rural communes of the Warmińsko-mazurskie voivodeship was 0.36 at the significance level $p < 0.05$. It may

Table 2. Number of rural communities in the Warmińsko-mazurskie voivodeship divided into classes of social capital level
Tabela 2. Liczba gmin wiejskich województwa warmińsko-mazurskiego w podziale na klasy poziomu kapitału społecznego

Specification Wyszczególnienie	Level of social capital Poziom kapitału społecznego				Total Razem
	high wysoki	higher-medium średni-wyższy	lower-medium średni-niższy	low niski	
Rural communes Gminy wiejskie	9 (13%)	20 (30%)	31 (46%)	7 (11%)	67 (100%)

Source: own elaboration.
Źródło: opracowanie własne.

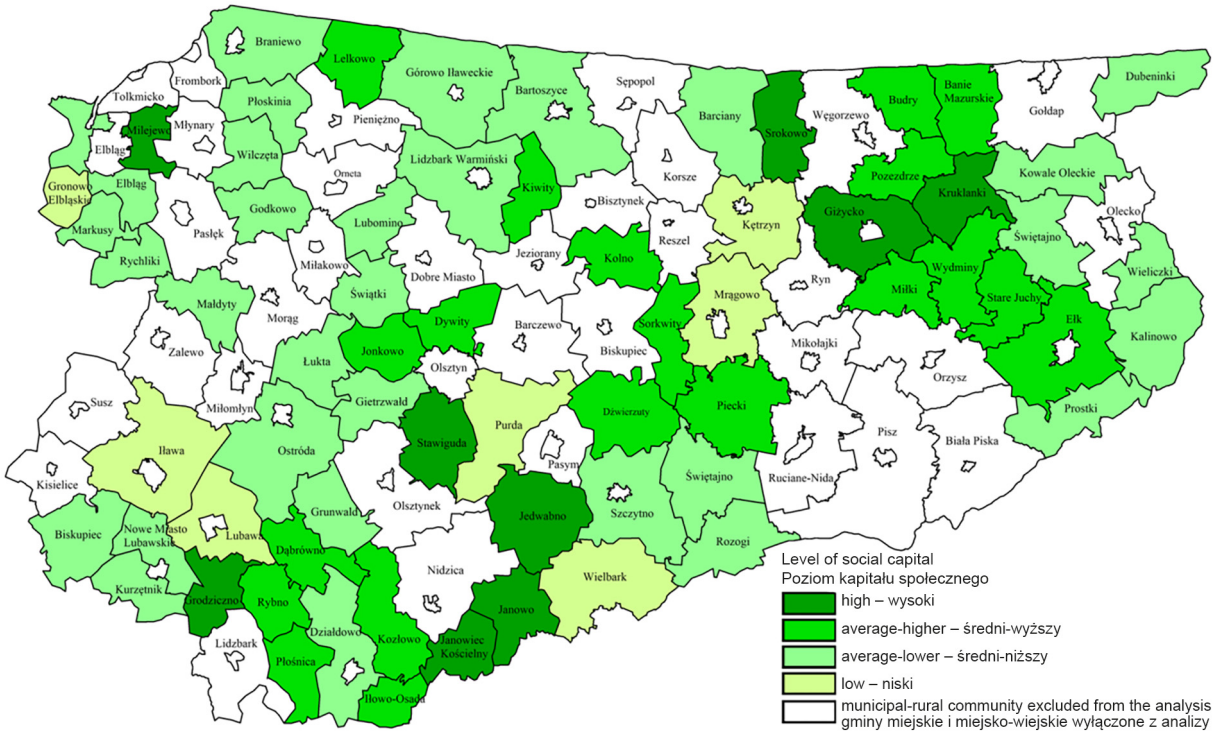

Fig. 2. Classification of rural communes of the Warmińsko-mazurskie voivodeship on the basis of a synthetic evaluation of the level of social capital
Source: own elaboration.
Rys. 2. Klasyfikacja gmin wiejskich województwa warmińsko-mazurskiego na podstawie syntetycznej oceny poziomu kapitału społecznego
Źródło: opracowanie własne.

be stated that this relationship is positive, although weak. Thus participation and ability of the inhabitants to self-organise has some effect, while not decisive, on the level of socio-economic development in these communes.

When analysing the division into typological classes of both established measures (development and social capital) we need to stress that class I representing a high level of social capital, out of nine such classified communes five had a high level of socio-economic development (Giżycko, Grodziczno Janowo, Jedwabno and Stawiguda), while four – higher medium (Janowiec Kościelny, Kruklanki, Milejewo and Srokowo). In class II (communes with a higher medium level of social capital) and class III of social capital (communes with a lower medium level of social capital) the level of socio-economic development in the analysed communes is greatly varied and ranged from class I to IV. In class IV, i.e. communes with a low level of social capital, this diversification was slightly smaller and ranged from class II to IV. Consistent classifications were observed for 40% analysed units (26 communes), in which the level of social capital was consistent with the level of socio-economic development. Thus it may be stated that the low level of social capital does not suggest a high level of socio-economic development in the communes, while the high level of social capital results in their higher level of socio-economic development. A comparison of typological classes is given in Table 3.

Table 3. Comparison of typological classes for the level of socio-economic development and social capital of rural communes in the Warmińsko-mazurskie voivodeship
Tabela 3. Zestawienie klas typologicznych poziomu rozwoju społeczno-gospodarczego i kapitału społecznego gmin wiejskich województwa warmińsko-mazurskiego

No. Lp.	Commune Gmina	Class sc Klasa ks	Class s-e Klasa s-g	No. Lp.	Commune Gmina	Class sc Klasa ks	Class s-e Klasa s-g	No. Lp.	Commune Gmina	Class sc Klasa ks	Class s-e Klasa s-g
Class of the level of social capital is consistent with the class of the level of socio-economic development Klasa poziomu kapitału społecznego jest zgodna z klasą poziomu rozwoju społeczno-gospodarczego											
1.	Giżycko	1	1	10.	Pozezdrze	2	2	19.	Małdyty	3	3
2.	Grodziczno	1	1	11.	Rybno	2	2	20.	Prostki	3	3
3.	Jedwabno	1	1	12.	Sorkwity	2	2	21.	Rozogi	3	3
4.	Janowo	1	1	13.	Barciany	3	3	22.	Świątki	3	3
5.	Stawiguda	1	1	14.	Godkowo	3	3	23.	Świętajno	3	3
6.	Banie Mazurskie	2	2	15.	Grunwald	3	3	24.	Wieliczki	3	3
7.	Dąbrówno	2	2	16.	Kalinowo	3	3	25.	Wilczęta	3	3
8.	Jonkowo	2	2	17.	Kowale Oleckie	3	3	26.	Mrągowo	4	4
9.	Kolno	2	2	18.	Lidzbark Warmiński	3	3				
Class of the level of social capital is higher than the class of the level of socio-economic development Klasa poziomu kapitału społecznego jest wyższa od klasy poziomu rozwoju społeczno-gospodarczego											
1.	Janowiec Kościelny	1	2	8.	Miłki	2	3	15.	Bartoszyce	3	4
2.	Kruklanki	1	2	9.	Stare Juchy	2	3	16.	Braniewo	3	4
3.	Milejewo	1	2	10.	Wydminy	2	3	17.	Działdowo	3	4
4.	Srokowo	1	2	11.	Dźwierzuty	2	4	18.	Górowo Iławeckie	3	4
5.	Budry	2	3	12.	Kiwity	2	4	19.	Rychliki	3	4
6.	Ełk	2	3	13.	Kozłowo	2	4	20.	Szczytno	3	4
7.	Lelkowo	2	3	14.	Płośnica	2	4				
Class of the level of social capital is lower than the class of the level of socio-economic development Klasa poziomu kapitału społecznego jest niższa od klasy poziomu rozwoju społeczno-gospodarczego											
1.	Dywity	2	1	8.	Biskupiec	3	2	15.	Ostróda	3	2
2.	Iłowo-Osada	2	1	9.	Dubeninki	3	2	16.	Iława	4	2
3.	Piecki	2	1	10.	Elbląg	3	2	17.	Purda	4	2
4.	Gietrzwałd	3	1	11.	Lubomino	3	2	18.	Gronowo Elbląskie	4	3
5.	Kurzętnik	3	1	12.	Markusy	3	2	19.	Kętrzyn	4	3
6.	Świętajno	3	1	13.	Płoskinia	3	2	20.	Lubawa	4	3
7.	Łukta	3	1	14.	Nowe Miasto Lubawskie	3	2	21.	Wielbark	4	3

Legend to tables: class s-e – class of the level of socio-economic development, class sc – class of the level of social capital.
Source: own elaboration.
Objaśnienia do tabeli: klasa s-g – klasa poziomu rozwoju społeczno-gospodarczego, klasa ks – klasa poziomu kapitału społecznego.
Źródło: opracowanie własne.

CONCLUDING REMARKS

One of the elements in the functioning of societies is connected with socio-economic development, which constitutes the primary objective of every local administration unit. Rural communes in the Warmińsko-mazurskie voivodeship do not show any greater diversification in terms of the level of socio-economic development and social capital, as indicated by slight differences in values calculated in studies on synthetic measures. Evaluation conducted in terms of the analysed characteristics (indexes) showed that most investigated units have average (medium) levels of both measures.

It needs to be stressed that the level of social capital expressed in the analysed indexes has a positive effect on the modification of the level of socio-economic development; nevertheless, it is weak, as indicated by the values of Pearson's linear correlation coefficient.

This analysis also showed that among 40% investigated units a complete consistency was found for classes of social capital and the level of socio-economic development. In turn, in the case of the other communes the relationships between social capital and socio-economic development show that the low level of social capital does not suggest a high level of socio-economic development in those communes, while the high level of social capital makes it possible for the analysed units to attain a higher level of socio-economic development.

REFERENCES

Borys, T. (ed.). (2005). Wskaźniki zrównoważonego rozwoju. Warszawa-Białystok: Ekonomia i Środowisko.

Bossel, H. (1999). Indicators for sustainable development: theory, method, applications. Winnipeg: International Institute for Sustainable Development.

Brodziński, Z. (2011). Stymulowanie rozwoju obszarów wiejskich na poziomie lokalnym na przykładzie woj. warmińsko-mazurskiego. Warszawa: SGGW.

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. Am. J. Sociol. 94, S95–S120.

Foxton, F., Jones, R. (2011). Social Capital Indicators Review. Office for National Statistics, 1–6.

Huang, I. B., Keisler, J., Linkov, I. (2011). Multi-Criteria Decision Analysis in Environmental Sciences: Ten Years of Applications and Trends. Sci. Total Environ., 409(19), 3578–3594.

Hwang, C. L., Yoon, K. (1981). Multiple attribute decision making: methods and applications, a state of the art survey. Berlin-Heidelberg-New York: Springer-Verlag.

Janc, K. (2009). Przestrzenne zróżnicowanie kapitału ludzkiego i społecznego na Dolnym Śląsku (p. 38–63). In: H. Dobrowolska-Kaniewska, E. Korejwo (Eds.), Endo- i egzogeniczne determinanty obszarów wzrostu i stagnacji w województwie dolnośląskim w kontekście Dolnośląskiej Strategii Innowacji. Wrocław: Dolnośląska Agencja Współpracy Ekonomicznej.

Kłosowski, W., Warda, J. (2001). Wyspy szans. Jak budować strategie rozwoju lokalnego?, Bielsko-Biała: Warda&Kłosowski Consulting.

Kompa, K. (2009). Budowa mierników agregatowych do oceny poziomu rozwoju społecznoekonomicznego. Zesz. Nauk. SGGW: Ekon. Org. Gosp. Żywn., 74, 5–26.

Korol, J. (2007). Wskaźniki zrównoważonego rozwoju w modelowaniu procesów regionalnych. Toruń: Wyd. Adam Marszałek.

Kuropka, I. (2001). Prognozowanie na podstawie modelu ekonometrycznego. In: M. Cieślak (Ed.). Prognozowanie ekonomiczne. Metody i zastosowanie. Warszawa: Wyd. Nauk. PWN.

Parysek, J. J. (2001). Podstawy gospodarki lokalnej. Poznań: Wyd. Nauk. UAM.

Pawlewicz, K., Pawlewicz, A. (2011). Poziom ładu przestrzenno-środowiskowego gmin wiejskich w zrównoważonym rozwoju na przykładzie województwa warmińsko-mazurskiego. Zesz. Nauk. WSB Pozn., 39, 171–179.

Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. Ann. Rev. Sociol., 24, 1–24.

Potoczek, A. (2003). Polityka regionalna i gospodarka przestrzenna. Toruń: Agencja Towarzystwa Naukowego Organizacji i Kierownictwa.

Sierocińska, K. (2011). Kapitał społeczny. Definiowanie, pomiar i typy. Stud. Ekon., 1 (LXVIII), 69–86.

Spychalski, G. (2013). Selected Features of Polish Farmers. J. Agribus. Rural Dev., 4(30), 231–242.

Szewczuk, A., Kogut, M., Zioło, M. (2011). Rozwój lokalny i regionalny. Teoria i praktyka. Warszawa: Wyd. CH Beck.

Wysocki, F. (2010). Metody taksonomiczne w rozpoznawaniu typów ekonomicznych rolnictwa i obszarów wiejskich. Poznań: Wyd. Uniwersytetu Przyrodniczego.

Pawlewicz, K. (2016). Relationships between social capital and socio-economic development based on rural communes in the Warmińsko-mazurskie voivodeship. J. Agribus. Rural Dev., 3(41), 373–381. DOI: 10.17306/JARD.2016.65

RELACJE POMIĘDZY KAPITAŁEM SPOŁECZNYM A ROZWOJEM SPOŁECZNO-GOSPODARCZYM NA PRZYKŁADZIE GMIN WIEJSKICH WOJEWÓDZTWA WARMIŃSKO-MAZURSKIEGO

Streszczenie. Celem artykułu jest próba oceny wpływu kapitału społecznego na poziom rozwoju społeczno-gospodarczego gmin wiejskich województwa warmińsko-mazurskiego. W toku realizacji badań obliczono dwa syntetyczne mierniki z zastosowaniem metody TOPSIS. Jeden charakteryzował kapitał społeczny, drugi stopień rozwoju społeczno-gospodarczego. Dane, które posłużyły do wyznaczenia mierników (wskaźniki charakteryzujące kapitał społeczny i rozwój społeczno-gospodarczy), pozyskano z Banku Danych Lokalnych Głównego Urzędu Statystycznego oraz Państwowej Komisji Wyborczej dla 67 gmin wiejskich z województwa warmińsko-mazurskiego. W kolejnym kroku dokonano uporządkowania liniowego badanych jednostek i wyznaczono klasy typologiczne (I–IV) charakteryzujące poziom obu analizowanych mierników. Ustalono, że gminy wiejskie w województwie warmińskomazurskim nie wykazują dużego zróżnicowania pod względem poziomu rozwoju społeczno-gospodarczego oraz kapitału społecznego. Następnie badano zależność między kapitałem społecznym a poziomem rozwoju społeczno-gospodarczego. Jak wykazała analiza statystyczna, zależność między poziomem kapitału społecznego a poziomem rozwoju społeczno-gospodarczego jest dodatnia, ale słaba. Z kolei w przypadku podziału gmin na klasy typologiczne stwierdzono zgodność klas między omawianymi miernikami, ale tylko dla 26 jednostek, co stanowi niespełna 40% analizowanych gmin.

Słowa kluczowe: rozwój społeczno-gospodarczy, kapitał społeczny, TOPSIS, gminy wiejskie

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