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SELECTED FEATURES OF POLISH FARMERS

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Abstract. The paper presents results of the research carried out among farm owners in Wielkopolskie voivodeship referring to selected features of social capital. The author identifies and estimates impact of some socio-professional factors on social capital quality and derives statistical conclusion. As a result there is a list of economic policy measures facilitating rural areas development in this aspect. The level of education, civic activity and tendency for collective activity are main conditions of social capital quality in Polish rural areas.

Key words: Social capital, rural areas, farmers.

INTRODUCTION

Current economic systems are developing on the basis of competitive processes where enterprises possess such assets which are often not easily measured and intangible. Apart from fixed assets created in investment activity and financial resources safeguarding operating fluency, the key to achieve competitive position is intellectual capital.

This is the sum of non-material production factors accumulating employees' knowledge, skills and experience along with the potential and knowledge management systems. In each case it increases organisation value and results from enterprise along with educational-training systems. This capital can be gathered and sold as patents; licenses, data bases and its source are research-development (RD) processes. It has a decisive effect on economy innovation because creative technologies, original products and unique organizational solutions come into being on the basis of intellectual capital store.

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Intellectual capital is structurally formed from three elements:
– human capital – bound up with labour capacity,
– structural capital (institutional) resulting from the environment and enterprises' organisational structures,
– social capital forming interpersonal relations based on trust and civic engagement.

From the macroeconomic point of view social capital is perceived as the source of strategic competitiveness and due to specific features becomes the subject of social-economic research [Fukuyama 1997]. This component of intellectual capital is of special importance in sectors and parts of economy which are subject to change. Such parts of economic system undoubtedly include rural areas situated outside industrial areas away from agglomerations. Their uniqueness is close relation to nature, low population density and dependence on agricultural business activity.

In these conditions intellectual capital creates development processes and its quality determines regional and national competitiveness level. Therefore, the objective of the research was identifying selected features of Polish farmers social capital affecting observed modernization and restructuring processes. The working hypothesis of the project is that improving the quality of farmers social capital results from country dwellers' psychosocial conditions. Furthermore, it has been assumed that the group who have all the makings of social capital role change models are farm owners involved in market activity at the same time shaping behaviour and attitudes of other social circles.

RESEARCH METHODOLOGY

Research was conducted among farm owners in Wielkopolskie voivodeship. The sampling of respondents was purposive which means that the questions were asked to farmers who are representatives of the Agricultural Chamber. This is an institution of agricultural government in Poland representing interests of all agricultural tax payers. Spatial division of the group studied was used in accordance with administrative division enclosing counties and 300-respondent group was determined as fully sufficient for the analysed population. To obtain the primal evidence, survey method was used with a mail questionnaire which consisted of 14 substantial questions and diagnostic information part (demographics). After logical and formal verification of the received surveys, 268 were qualified for the statistical procedure.

To determine the correlation between quality features expressed in nominal scale (e.g. gender or education) or between quality feature and quantitative one (e.g. source of earnings and income) contingency measures assessing feature association degree were used. Features are associated if they appear in a greater number of cases than it would occur if they were unrelated [Zeliaś et al. 2002].

Association evaluation is based on statistics χ^2 which shows observed number deviation for isolated classes of both features from the number which would be expected if the features were unrelated.

Statistics χ^2 is calculated on the basis of a table which springs up as a result of classifying study population according to two features and consists of k lines matching one feature variants and l columns matching the second variant.

Statistics χ^2 is calculated according to the formula:

$$\chi^2 = \sum_{i=1}^{k}\sum_{j=1}^{l}\frac{\left(n_{ij} - n_{ij}\right)^2}{n_{ij}} = \sum_{i=1}^{k}\sum_{j=1}^{l}\left(\frac{n_{ij}^2}{n_{ij}}\right) - n$$

Statistics χ^2 assumes the values within the bracket $\left\langle 0; n \cdot \sqrt{(k-1)\cdot(l-1)} \right\rangle$ depends on n population number, *k* lines number and *l* columns.

V Cramer coefficient calculated in the study is based on statistics χ^2 value:

$$V = \sqrt{\frac{\chi^2}{n\min(r-1, k-1)}}$$

The coefficient assumes values within the bracket (0, 1). If its value equals 0, it means that features X and Y are uncorrelated. The closer its value to unity, the stronger the correlation between features X and Y [Sobczyk 2000].

In the process of empirical data analysis, an attempt was made to identify features relations distinguishing rural areas social capital with social and occupational characteristics of farmers under research.

SELECTED RESEARCH RESULTS

Age structure is an important determinant of enterprise behaviour and civic engagement formative for rural area social capital level. The group under research are farm owners at working age. Their average age is 42.6 and median 48. The oldest subject is 74, and the youngest 20. This feature's variability coefficient i.e. standard deviation share in average value equals 30%. This proves high group diversity in terms of age. Most people out of those polled are within the 47-56 age bracket (Fig. 1).

The correlation between farmers age and social organisation membership was evaluated with V Cramer coefficient value at 0.26 (limited relation). The age group analysis revealed that hardly anyone younger than 34 and older than 61 was a member of non-governmental sector institution (Table 1).

Another studied relation was the connection between respondents' age and their natural trust impulse. Although the correlation measure result was relatively low i.e. 0.19, the simple answer evaluation shows that the farmers polled are people of high self-esteem and apart from the eldest age group evaluate social relations positively (Fig. 2).

An important enterprise reading is manager and contractor job preference. All in all, 68% respondents preferred the manager function which results from farmer self-reliance and unique mentality. The factor that had impact on the job function choice was gender of those polled (Fig. 3).

The research result confirms that most farms are run by men and women prefer to work in a team.

Another crucial feature determining the level of social capital is education. In the group studied there are 20% of farmers with university education, 53% with secondary education and 25% with vocational secondary education. There are only 2% of people with primary education among those polled (Fig. 4).

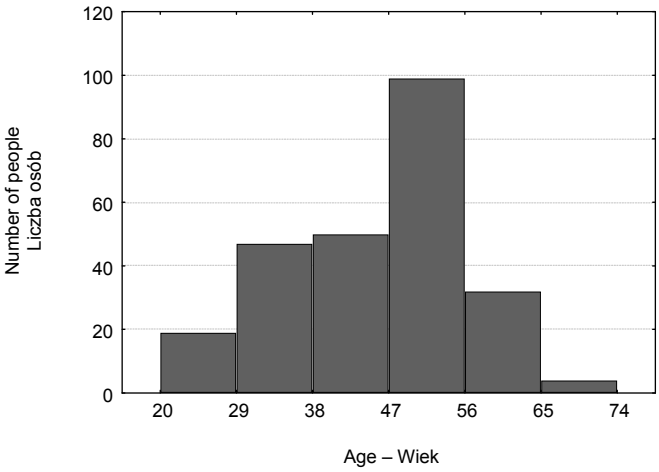

Fig. 1. Respondents' age histogram
Source: own study.
Rys. 1. Histogram wieku badanej grupy
Źródło: opracowanie własne.

Table 1. Farmers' age and social organisation membership relation
Tabela 1. Relacja wieku ankietowych i członkostwa w organizacji społecznej

Age Wiek	Organisation membership (number) Członkostwo w organizacji (liczebność)	
	yes – tak	no – nie
> 34	24	15
34-61	169	26
61-88	9	5
Sum – Suma	202	46

Source: own study.
Źródło: opracowanie własne.

The structure presented above confirms the average high educational level of those polled and indicates predispositions to create active attitudes in their environment. The V Cramer coefficient analysis showed significant connections of education level with job function preferences and social relations openness. Among those polled, with higher education, preference to take economic decisions and enterprising activities is on the increase (Fig. 5).

At the same time, people with higher intellectual awareness (with higher education) consider relations with environment important as these make up trust and informal relations (Fig. 6).

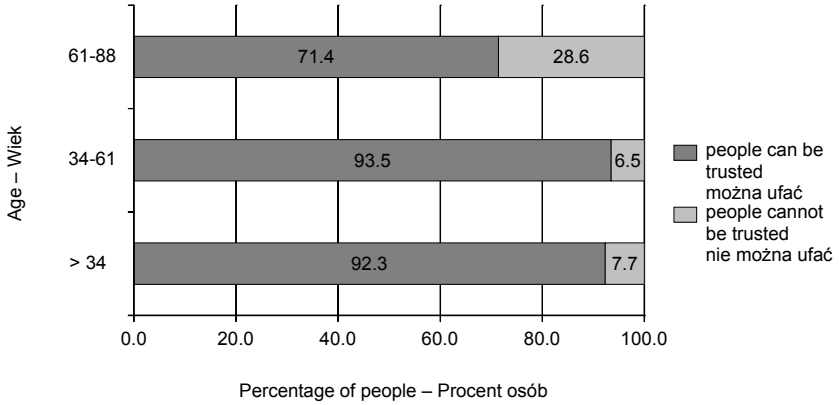

Fig. 2. Connection between age and social openness of respondents
Source: own study.
Rys. 2. Zależność wieku i otwartości społecznej ankietowanych
Źródło: opracowanie własne.

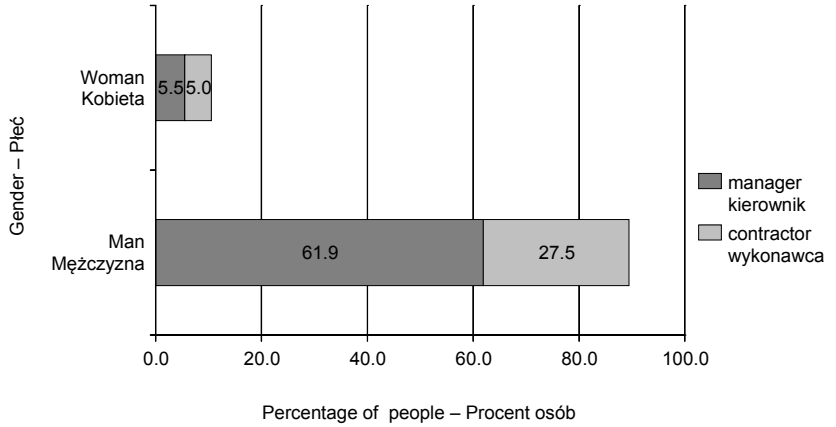

Fig. 3. Impact of respondents' gender on job function choice
Source: own study.
Rys. 3. Wpływ płci ankietowanych na preferencje funkcji zawodowej
Źródło: opracowanie własne.

Collective activity barriers in agriculture were also under research. They curb business and culture undertakings. Respondents pointed to the lack of farmers' will resulting from their perception of collective activity. At the same time, the study revealed that the higher the education of those polled, the more often they mention the problem (Table 2).

In the intellectual capital determinant analysis an economic factor appears i.e. the income level that the household has at its disposal or the entrepreneur's profit. In this study, a farm' income is the gross agricultural income and the level was established according to the farm owner's recommendation.

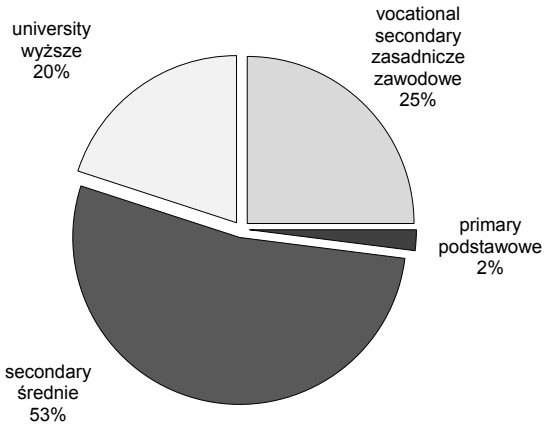

Fig. 4. Respondents' education structure
Source: own study.
Rys. 4. Struktura wykształcenia ankietowanych
Źródło: opracowanie własne.

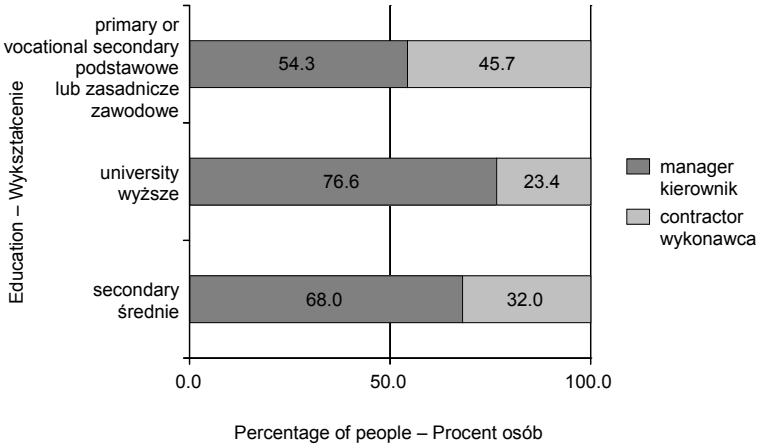

Fig. 5. Connection of education level with job function preferences
Source: own study.
Rys. 5. Zależność wykształcenia i preferowanych funkcji zawodowych
Źródło: opracowanie własne.

Cooperative ability in agriculture can be estimated by production group which is the institutional expression of team work and brings tangible benefits to its members. Agricultural income, in the research, turned out to be an important factor diversifying farmers' tendency to group activity. Only 19% of respondents from the group with lowest income declare production group affiliation, whereas in the affluent group the percentage increases to 44.7% (Fig. 7).

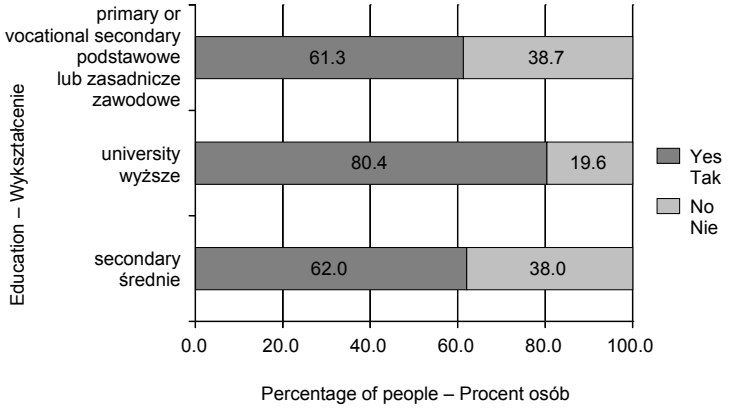

Fig. 6. Connection of education and social relations openness
Source: own study.
Rys. 6. Relacja wykształcenia i otwartości na relacje społeczne
Źródło: opracowanie własne.

Table 2. Connection of education and pointing to lack of farmers' will as a barrier against collective activity
Tabela 2. Zależność wykształcenia od wskazania braku woli rolników jako bariery działań wspólnych

Education Wykształcenie	Lack of will is a barrier Brak woli jest barierą	Lack of will is not a barrier Brak woli nie jest barierą	Sum Suma
Primary or vocational Podstawowe lub zawodowe	29	30	59
Secondary Średnie	79	42	121
University Wyższe	35	15	50

Source: own study.
Źródło: opracowanie własne.

Connection between income level and cooperation with agriculture environment institutions was identified. V Cramer coefficient assumed quite high values in these relations i.e. along with the income growth springs up bigger intensity of contacts between households and insurance companies, rural agencies or financial institutions.

In the respondents' evaluation of social relations importance an interesting and predictable relationship appeared. Although majority of those polled considered relations with social environment important, the higher the income level the more important become the group ties among farm owners (Fig. 8).

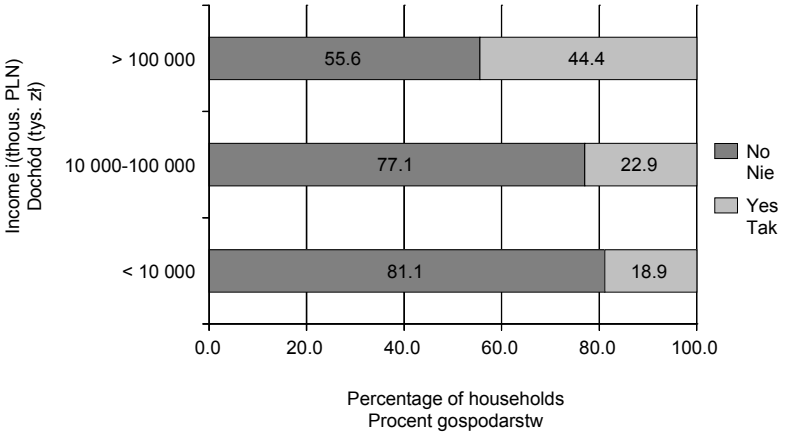

Fig. 7. Relation between agricultural income and production group affiliation
Source: own study.
Rys. 7. Zależność między dochodem rolniczym a przynależnością do grupy producenckiej
Źródło: opracowanie własne.

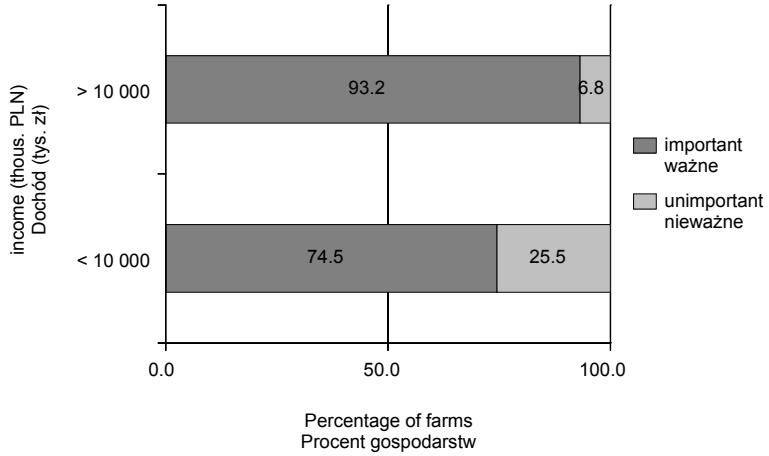

Fig. 8. Relation of agricultural income and social relations importance
Source: own study.
Rys. 8. Zależność dochodu rolniczego i znaczenia relacji społecznych
Źródło: opracowanie własne.

An interesting relation occurred with reference to the question whether an idea (innovation) is the source of economic success. Majority of people with the highest income did not agree with the thesis in the question (Table 3).

Table 3. Relation between income and evaluation of idea as success source
Tabela 3. Relacja między dochodem a oceną pomysłu jako źródła sukcesu

Annual income (PLN) Dochód roczny (zł)	An idea is a success source Pomysł jest źródłem sukcesu		Sum Suma
	yes – tak	no – nie	
< 10 000	24	28	52
10 000-100 000	74	31	105
> 100 000	20	13	33

Source: own study.
Źródło: opracowanie własne.

The general criterion of social capital potential is trust level towards other people. The descriptive method was used in the project and 49% of those polled stated that trust should be limited, 29% that people can be trusted and just 8% claimed that people cannot be trusted. This is an optimistic result taking into consideration average trust level of Polish society (Fig. 9).

Fig. 9. Respondents' trust evaluation
Source: own study.
Rys. 9. Ocena zaufania wśród respondentów
Źródło: opracowanie własne.

Another element of social activity is attitude to authorities and consequent tendency to participate in public life. The farmers polled demonstrated a responsible attitude to political environment since 72% claimed that authorities are a crucial element of state structure and 9% acknowledged authorities as a constructive politics result. At the same time 15% chose pejorative assessments of authorities and people in power (Fig. 10).

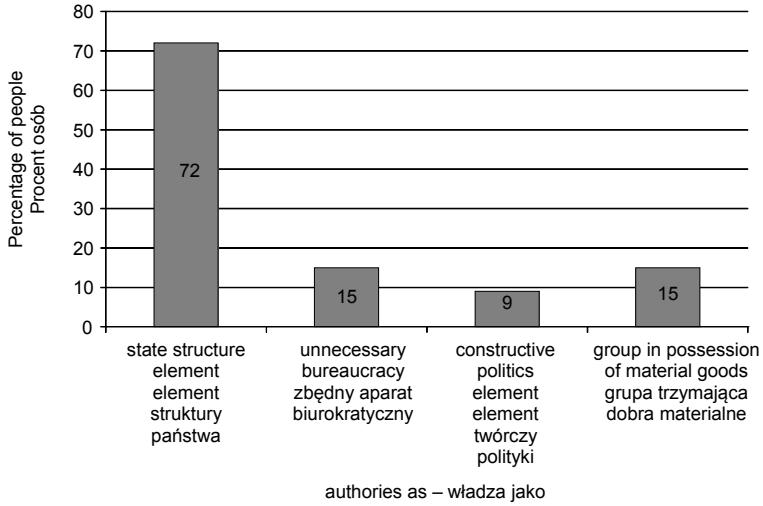

Fig. 10. Respondents' evaluation of authorities.
Source: own study.
Rys. 10. Ocena władzy przez respondentów
Źródło: opracowanie własne.

When evaluating enterprise premises the farmers polled attributed high importance to intellectual capital elements. 62% pointed to knowledge and education as fundamental for economic success, and just a fewer claimed that an appropriate idea is a source of success when self-employed. Only 32% stated that high capital is a premise of business success (Fig. 11).

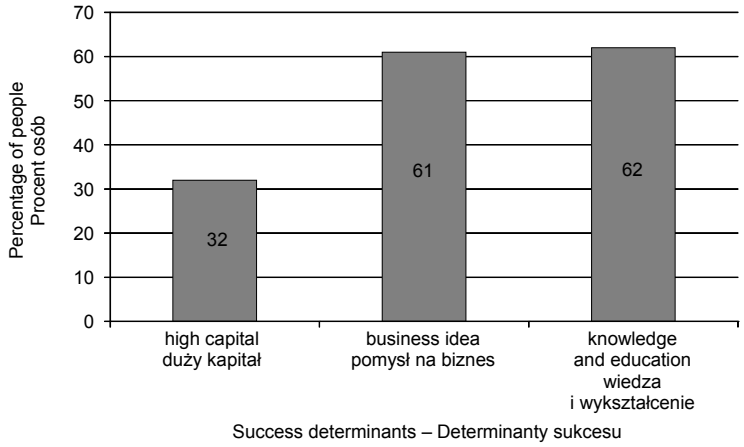

Fig. 11. Sources of economic success according to respondents
Source: own study.
Rys. 11. Źródła sukcesu ekonomicznego w opinii respondentów
Źródło: opracowanie własne.

The analysis of success factor number revealed interesting results. Contrary to expectations, 120 choices referred to one determinant and only 100 answers referred to two business success factors. The most common were combinations of high capital and a business idea or high capital together with knowledge and education. Only 7.7% choices referred to combination of all three determinants (20 answers) – Fig. 12.

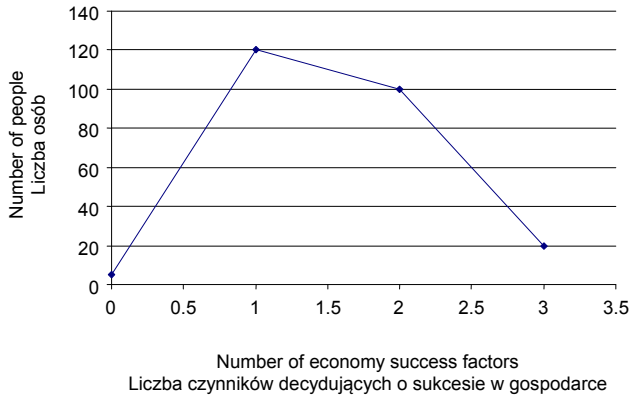

Fig. 12. Number of success factors according to respondents. Source: own study
Rys. 12. Liczba czynników sukcesu według ankietowanych Źródło: opracowanie własne.

SUMMARY

The conducted research concerned selected social capital indexes in Polish rural areas. Representatives of agricultural producers, mostly men, with above the average education level were evaluated. Majority of those polled gain most income from agricultural activity and cooperate with agriculture support institutions. Statistical social feature relation measure pointed to age, education level and income as social capital factors among country dwellers. Thus, the working hypothesis has been confirmed that improving quality of rural areas social capital can occur by changing country dwellers and their families' psychosocial factors. On account of tight bond between social and intellectual capital it can be stated that there are good reasons to shape intellectual capital by orientated economic policy.

This can take form of interregional effects by central authorities (government, European Union) or intraregional moulding of subject behaviours by local governments. The current doctrine of regional development policy assumes integration of these two routes as a part of development strategy along with central and local government contract. Operating programmes related to intellectual capital commonly include:

- improvement of human resources quality by educational system and continuous education projects,
- employees' mobility increase enabling intellectual capital flow,
- raising civic awareness and facilitating collective activity forms,

– creating institutional support for intellectual capital,
– streamlining intellectual property and transfer model.

Directions of economic policy towards intellectual capital, grouped in this way, in the future will allow improving quality of this crucial economy growth factor in rural areas making them more competitive.

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WYBRANE CHARAKTERYSTYKI KAPITAŁU SPOŁECZNEGO POLSKICH ROLNIKÓW

Streszczenie. Artykuł przedstawia wyniki badań przeprowadzonych wśród właścicieli gospodarstw rolnych województwa wielkopolskiego w zakresie wybranych charakterystyk kapitału społecznego. Autor identyfikuje i określa wpływ czynników społeczno-zawodowych na jakość kapitału społecznego i wyprowadza wnioski statystyczne. W konkluzji ukazano instrumenty polityki gospodarczej wspierające rozwój obszarów wiejskich w tym aspekcie. Poziom wykształcenia, aktywność obywatelska i skłonność do działania wspólnego stanowią główne uwarunkowania jakości kapitału społecznego polskich obszarów wiejskich.

Słowa kluczowe: kapitał społeczny, obszary wiejskie, rolnicy

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