

ROLE OF TRUST IN BUILDING SOCIAL CAPITAL AND RURAL DEVELOPMENT

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– Abstract –

This paper examines the role of social capital in rural development of the Central and Eastern European Countries. As agriculture is one of the main economic activities in the rural area of these countries, special focus is put on the ability of different forms of social capital to foster or hamper the viability and competitiveness of rural. The paper is structured as follows: the first part gives a literature overview about the concept of social capital and its components. The second part shows measuring methods. The third part summarizes the results of a Hungarian case study. The closing part of paper shows that the underdevelopment of social capital is one of the common features of Central and Eastern European Countries, which explains their deficit in productivity and competitiveness.

Key words: *social capital, trust, rural development, Central and Eastern European Countries*

JEL Classification: **A13, O43**

1. INTRODUCTION

While the term and use of 'social capital' dates back to a longer time, its theoretical approach and analysis has only become popular since the early 80s, and even then mostly with sociologists (Bourdieu, 1983; Coleman, 1988) and with some politology experts (Putman, 1993; Fukuyama, 1995). During the last two decades economists also show an increased interest in the role of social capital in relation to economic development and increasing of social welfare. (Among others Romer, 1986; Lucas, 1988; Woolcock, 1998; Becker, 2000; Solow, 1999) The findings of recent research on endogenous growth theory suggest that social capital has an impact on growth which is at least as strong as that of other production factors, like physical, natural and human capital. Although social capital has gained interest among both academic and policy decision makers, but there is a generally accepted definition of it (Tömpe, 2008). Review of definition and history of social capital is presented by Adler and Kwon (2002), Claridge (2004), Keskin (2011) and more recently by Bylok (2010). In our research we used Putman's definition which seems to be the most cited in related literature. He defines social capital "as those features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions" (Putnam et al., 1993: 167).

Social capital is used as a tool for supporting the implementation of rural and agricultural policies in many countries or regions of the world - and it also plays an important role in explaining both efficiency of political institutions and related economics outcomes.

Our research focuses on the situation of Hungary, that went through transition from central planned economy to market economy at the beginning of 1990s and became member of European Union in 2004, together with other Central and Eastern European Countries. Following accession to the EU there was a big expectation about the fast economic growth and catching up to Western European living standard. Despite huge financial means and numerous measures the result of development – especially in rural areas – remains unsatisfactory or at least not sustainable in many regions and the gap between the economic situation of rural population (mostly farmers) of EU-15 (old member countries) and EU-12 (new members) including Hungary did not narrow, in some cases it is even widening. Lot of researchers agree that the greatest obstacles to development are the fragmented structure of agricultural sector, lack of capital, large share of outdated

machinery and overcapitalization in other cases, missing managerial skills, high proportion of unskilled and old farmers and, as a consequence, low level of productivity. The concentration of market power upstream and downstream and unequal bargaining power among the partners of food chain are also mentioned as possible reason of missing catching up. Our research hypothesis was that the concept of social capital also could lead to a better understanding of these patterns. Social capital is not only relevant from the aspects of policy making, but it is also interesting for actors of local economy in order to increase their own viability and competitiveness.

2. MEASUREMENT OF SOCIAL CAPITAL

In order to form more defined recommendation for decision makers at different levels, it is necessary to quantify social capital and its components. In spite of the fact that there is a growing literature on methodology of measurement and observation of social capital, it is still a problematic area. First of all, as the analysis of social capital is a multi-disciplinary subject, so its measurement likewise, can only unify and comprise different levels of approaches and extents. Secondly, any measurement that seeks to measure the effect of such vague concepts as 'community', 'network' or 'organisation' is rather problematic. For our purpose Putman tools expanded by Norris and Newton (2000) were used (Fekete Farkas et al., 2011). Norris (2000) distinguished two dimensions within social capital: one structural and one cultural dimension. Structural dimensions: measuring the extent of social ties (in our survey social capital 1, SC1) and measuring the strength of relationship of social networks (SC2). The elements of cultural dimensions are as follows: the type of effect on social environment (SC3), the quality of identity-consciousness in the community (SC4), the judgement as regards social cohesiveness, confidence and responsibility (SC5). In our research question form of survey was used, extended on five counties of Hungary.

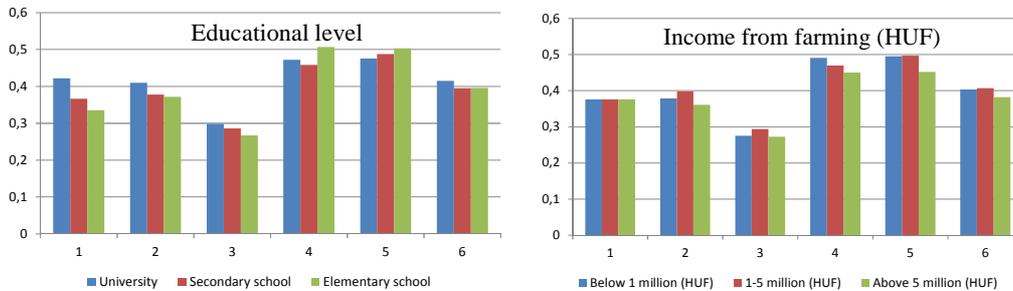
3. RESULTS OF HUNGARIAN SURVEY

3.1. General level of social capital

In our research the question form of survey was used and the survey involved five counties of Hungary. The questionnaire included 6 question groups according to five types of social capital mentioned above and one additional group including general information about farmer's background. Respondents used numerical values from 1-3 or 5 for measuring their own level of social capital components. The compound or summated value derived via weighted average method showed

the magnitude of the social capital to be lower than average, which cannot be interpreted in itself alone, only in its wider context and interdependence. Compared to this value, one can judge the smaller or greater effect of the different factors on the magnitude of social capital. Interesting result was that level of social capital has positive correlation with educational level but in inverse relationship with income level (Figure 1).

Figure 1 Some results of survey



Based upon: own construction

Based on the overview of recent studies our statement is that social capital literatures has been more successful at documenting beneficial impact that at providing guidelines about how to create or increase the stock of social capital. We have not defined any recommendation either but in our opinion some detailed results of this survey give some substantive messages. As data of Figure 2 shows, according to the respondents their life is affected mainly by the policies but their feeling is that they have not any or just small influence on them.

Figure 2 Answers for questions according to relationship with effect of policies

Level of control	no any	small	medium	large
Level of decision				
Residence	22,2	47,9	25,6	4,3
Municipality	49,1	39,6	7,7	3,5
NGO-s	36,8	33,3	24,6	5,3
Political parties	62,9	30,2	6,9	0,0
Government	73,9	22,6	3,5	0,0

Descriptors	not important	small	medium	large
Friends	36,2	35,3	28,5	0,0
Municipality	19,8	50,0	23,3	6,9
Policies	6,1	4,3	14,8	74,8

Based upon: own construction

The result of research also indicate a broad consensus that trust becomes more important than the low and regulatory institutional system. With these results we want to draw our attention to methodology of measurement of trust and to role of trust in the willingness to cooperate on farm level.

3. 2. Role of trust in cooperation willingness of farmers

3.2.1. Decription of previous research

Trust as a subject of study in (agricultural) economics is a relatively new phenomenon in spite of the fact that it has been used widely in sociology, anthropology and other “soft” disciplines. However, in the last 25 years the number of publications on trust in the economics literature has grown vastly (e.g. McAllister, 1995; Hansen et al., 2002; Szabó, 2010; Sholtes, 1998 etc.).

The aim of this research in this paper is to explore those factors that have fundamental role in trust development between fieldcrop farmers in Hungary. Machinery sharing arrangements were used as an example. We used Sholtes’s trust model following Takács et al. (2006).

3.2.2. Description of methodology

Sholtes (1998) placed trust in the matrix of loyalty and capability. We can speak about trust if the faith in loyalty as well as in capability has high values among the partners (Figure 3).

Figure 3 Development of trust among partners on the basis of loyalty to each other and the presumed capability level

		Capability <i>“The value I consider my partner is capable and qualified”</i>	
		Low	High
Loyalty <i>“The value I believe my partner likes me and he will support me in future”</i>	High	SYMPATHY	TRUST
	Low	DISTRUST	RESPECT

Based upon: Sholtes, 1998

In compiling the questionnaire the requirements of Sholtes trust matrix were taken into consideration. According to this, one question (Q1) was put for measuring the general level of trust in farmers. The faith of respondents in the loyalty of fellow farmers was measured by two items (Q3 and Q4), while the opinion about their capability was involved in three items (Q4, Q5 and Q6). The respondents could reply to each question in a scale from 1 to 7. The questions in the survey are presented in Table 1.

Table 1 The questions of the survey

Trust

Q1. How much do you trust your fellow farmers in general? (*TR*)

Loyalty (LOY)

Q2. I think my fellow farmers definitely keep their words (*loy_1*)

Q3. I think my fellows would never do any harm to me if the conditions of farming changed (*loy_2*)

Capability (CAP)

Q4. I trust that if any of my fellow farmers provides any machine work to me, the quality of his work will be the best possible under the given conditions (*cap_1*)

Q5. I trust that if any of my fellow farmers provides any machine work to me, it will be done at the most appropriate time, under the given conditions (*cap_2*)

Q6. I trust that if I lend a machine or tool to any of my fellow farmers, he will use it with the due precautions (*cap_3*)

Based upon: own construction

On the basis of questions concerning the trust in the loyalty and capability of fellow farmers we have made an aggregated scale (LOY and CAP) according to the following relations:

$$LOY = \frac{loy_1 \cdot A_{loy_1} + loy_2 \cdot A_{loy_2}}{A_{loy_1} + A_{loy_2}} \quad \text{and} \quad CAP = \frac{cap_1 \cdot A_{cap_1} + cap_2 \cdot A_{cap_2} + cap_3 \cdot A_{cap_3}}{A_{cap_1} + A_{cap_2} + A_{cap_3}}$$

where: *LOY* and *CAP*: values of aggregated scale in case of given observation units; *loy_x* and *cap_x*: values of replies given to questions; A_{loy_x} and A_{cap_x} : linear correlation coefficient of items with Principal Components¹.

We have used the following statistical methods in the research: descriptive statistics, t-tests, one-way ANOVA with Post Hoc Tests, hierarchical ANOVA and linear regression.

¹ The items were considered with different weights in the drafting of aggregated scales. The weights were formed with Principal Component Analysis (PCA) method, by using the so-called A matrix values.

3.3. Result of case study

According to the experiences of empirical research, the level of average trust among the surveyed group of farmers is a bit higher than medium, the average is 3,77 (Table 2). As it is well-known, the respondents used a scale from 1 to 7 to evaluate their own level of trust towards fellow farmers. The replies were distributed as follows: 21% in the sample categorically declared, that: „*these days you cannot trust anybody in the world...!*”, they indicated the trust level 1. Another 19% chose level 2, thus indicating that they do not really trust their fellows. The weight of those with intermediate trust levels (scale 3-5) was 30%, while the upper end (scale 6 and 7) of trust scale was marked by 17% and 13%. According to the results, all of the possible replies related to the faith in the qualities of fellow farmers received higher average marks than the items used for measuring the loyalty. Comparing the values of aggregated scales (*LOY* and *CAP*), the higher level of faith in capability can be statistically proven. It is an interesting experience, that there is only a medium-strong interrelation [Pearson’s: 0.61 (sig.: 0.000)] between the two variables, which indicates that the two examined approaches represent different dimensions.

Table 2 Descriptive statistics of the variable set

Descriptors		TR	<i>loy_1</i>	<i>loy_2</i>	LOY	<i>cap_1</i>	<i>cap_2</i>	<i>cap_3</i>	CAP
Mean		3.77	3.69	3.47	3.59	3.96	4.13	3.95	3.94
<i>CI (95%)</i>	<i>L. B.</i>	3.41	3.35	3.16	3.26	3.68	3.83	3.68	3.72
	<i>U. B.</i>	4.14	4.01	3.84	3.92	4.22	4.39	4.23	4.16
St. Dev.		2.13	1.96	2.05	1.92	1.61	1.65	1.60	1.27

Based upon: own calculation

In the next phase of research, the testing of Sholtes trust model was carried out. The *LOY* and *CAP* scales were divided into two parts (High and Low) by using the averages belonging to them. On the basis of this, 4 groups were formed. In what follows the level of general trust was examined in these groups (Figure 4).

Figure 4 Level of trust (TR) in the individual groups

		Level of Capability (CAP)	
		Low	High
Level of Loyalty (LOY)	High	Group 1 (n= 13) TR-mean: 3.85 CI (95%): [3.30-4.39] (SYMPATHY)	Group 2 (n= 52) TR-mean: 5.69 CI (95%): [5.37-6.05] (TRUST)
	Low	Group 3 (n= 47) TR-mean: 1.77 CI (95%): [1.46-2.07] (MISTRUST)	Group 4 (n= 20) TR-mean: 3.45 CI (95%): [2.55-4.35] (RESPECT)

Based upon: own calculation

The results of examinations performed with descriptive statistics were checked by one-way ANOVA and Post Hoc Tests, too. Our results clearly prove that the assumption based on Sholtes trust model is correct, it is statistically proven that the average level of trust in individual groups is significantly different: among others it can be observed that the average level of trust in Group 2 is significantly higher than in the other groups, while in case of Group 3, it is lower than in the others. It is very interesting, that the expected values of Group 1 and Group 4 are not essentially different from each other.

We have examined the impact of faith in loyalty and capability on trust (Table 3). The analyses performed with explanatory models (ANOVA and linear regression) prove that the level of trust is determined more significantly by the faith in loyalty, although the impact of faith in capability is also confirmed and considerable. It contradicts the preliminary expectations, because the theoretical model explicitly shows that both determinants have equal weight in the development of trust.

Table 3 Impact of faith in loyalty (LOY) and capability (CAP) on trust (TR)

Factors	Hierarchical ANOVA ($R^2= 0.643$)			Linear regression ($R^2=0.717$)		
	ETA	BETA	Sig.	B	BETA	Sig.
LOY	0.719	0.512	0.000	0.734	0.662	0.000
CAP	0.669	0.411	0.000	0.439	0.263	0.000

Based upon: own calculation

Our results clearly confirm the theoretical model, according to which trust is formed if the faith in both the loyalty and the capability is high among the partners. That presumption of the theoretical model, however, which considers the impact of each factor on the trust the same seems to be not accurate. Statistical analyses have proved that the loyalty dimension is more important in the development of trust than the faith in professional competence, which may be related to historical background of farming in Central and Eastern European Countries. It is very unfortunate, because - according to the survey – the faith in competence is higher than the faith in loyalty in the Hungarian agriculture. It partly explains the low level of trust and possibilities for increasing of its level. Our research, of course, has had some limits.

4. CONCLUSIONS

Besides traditional forms of capital (human, physical, financial and natural) social capital is also important for ensuring the economic growth and sustainability of society. The method presented in this paper is a good tool for measuring the social capital both on partial and accumulated level and enables to identify how accumulated level of social capital relates its components. The results of Hungarian case study also confirm the findings of related research in other Central and Eastern Countries that stock of social capital is low, and the main important barrier of its accumulation is the missing of trust both on macro and micro level. Our results clearly confirm the theoretical model, according to which trust is formed if the faith in both the loyalty and the capability is high among the partners. It seems, however, that typically in the transitional countries there is a lack of trust among people and in institutions due to the historical background. It also partly explains the low level of social capital. It is problematic that the tools applied in the current political practice are more suitable for strengthening the capability dimension. So the development of loyalty dimension is a key factor in the improvement of economy. The political responsibility and, regarding the means, further research in social sciences is required to enhance this process.

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