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**GENDER DISPARITIES IN HUMAN AND SOCIAL CAPITAL IN
EASTERN CROATIA**

**SPOLNE RAZLIKE U LJUDSKOM I DRUŠTVENOM KAPITALU U
ISTOČNOJ HRVATSKOJ**

ABSTRACT

It is believed that human and social capital are related, with human capital sometimes considered either as a subset or a partial basis of social capital. Both human and social capital are the foundation of society's wealth and growth. The aim of this study is to explore the gender differences in human and social capital indicators. Also, relationships between various indicators of human and social capital and subjective quality of life will be presented. Human capital indicators comprise various demographic data, while social capital indicators include variables such as social support, trust, and community cohesion. This research was conducted on a sample of 356 graduate students of J. J. Strossmayer University of Osijek. Results revealed statistically significant gender differences in human and social capital variables. Women tend to score higher on social capital measures in comparison to men. According to human capital indicators, the population of eastern Croatia is aging, and consequently, a negative growth rate is present for years. When it comes to education, there is a trend of more women obtaining higher education degrees, in opposition to the historical data. Furthermore, results indicate a significant connection between social capital and subjective well-being, although various social capital indicators correlate differently with subjective quality of life. Identifying aspects of social and human capital in relation to the quality of life will contribute to better understanding of the relationship between the economic, social and psychological characteristics of individuals and the whole population, which helps in the design of socio-economic strategies at the regional level.

Key words: human capital, social capital, quality of life, gender differences.

SAŽETAK

Smatra se kako su ljudski i društveni kapital višestruko povezani, pri čemu se ljudski kapital ponekad shvaća kao aspekt ili osnova društvenog kapitala. Ljudski i društveni kapital čine temelj bogatstva i rasta cjelokupnog društva. Cilj ovog istraživanja je istražiti spolne razlike u pokazateljima ljudskog i društvenog kapitala. Također, ispitat će se povezanost između različitih pokazatelja ljudskog i društvenog kapitala te subjektivne kvalitete života. Indikatori ljudskog kapitala obuhvaćaju različite demografske podatke, dok pokazatelji socijalnog kapitala uključuju varijable kao što su socijalna podrška, povjerenje i kohezija zajednice. Istraživanje je provedeno je

na uzorku od 356 studenata diplomskih studija Sveučilišta J. J. Strossmayer u Osijeku. Rezultati su otkrili postojanje statistički značajne razlike s obzirom na spol u varijablama ljudskog i društvenog kapitala. Pritom osobe ženskog spola postižu bolje rezultate na varijablama društvenog kapitala u odnosu na muškarce. Prema pokazateljima ljudskog kapitala, stanovništvo istočne Hrvatske generalno stari, a posljedično se javlja negativna stopa rasta koja je prisutna već godinama. Kada je u pitanju obrazovanje, primijećen je trend sve većeg broja osoba ženskog spola uključenih u sastavnice visokog obrazovanja, što je u suprotnosti s povijesnim podacima. Nadalje, rezultati ukazuju na značajnu povezanost između društvenog kapitala i subjektivnog blagostanja, iako različiti pokazatelji društvenog kapitala različito koreliraju s subjektivnom kvalitetom života. Utvrđivanje aspekata društvenog i ljudskog kapitala u odnosu na kvalitetu života pridonijet će boljem razumijevanju odnosa između gospodarskih, socijalnih i psiholoških osobina pojedinaca i cjelokupne populacije što pomaže pri stvaranju društveno-ekonomskih strategija na regionalnoj razini.

Ključne riječi: *ljudski kapital, društveni kapital, kvaliteta života, spolne razlike.*

1. Introduction

One of the most important aspect of the global society is its capital, which has various forms, such as physical capital, natural resources, human and social capital. They all are necessary in order to provide the prerequisites to maintain the growth of a society (Parts, 2003). It is highly important to define human and social capital in order to understand the difference and interaction between them. Different terms have been used previously in attempts to depict human and social capital. Moreover, some authors believe human and social capital represent the same concept, due to the close relationship between them and lack of agreement between the experts regarding their definitions. Although there is a very tight connection between human and social capital, they include different indicators: for example, human capital refers to knowledge, skills, competencies and personality attributes (OECD, 2007), which indirectly lead to the production of something that is considered to be highly valued and that contributes to the economy of a country (Schultz, 1961). On the other hand, social capital includes all the resources that individuals access through their networks. Social capital indicators encompass trust of others, community cohesion, mutual assistance between neighbors, voluntary work and group membership. Moreover, social capital indicator could be even voting participation (Fujiwara & Kawachi, 2008).

1.1. Human and social capital

Human capital comprises the stock of competencies, knowledge, habits, social and personality attributes, including creativity, cognitive abilities, embodied in the ability to perform labor so as to produce economic value in the society (Vuletic et al. 2017). Years of formal education is one of common human capital indicators. A number of studies have documented lower levels of schooling or formal education in developing countries among females compared with males. As stated by World Economic Forum, the development and deployment of human capital is a critical element of economic growth and social inclusion in all countries (2016). Human capital can be considered as a prerequisite for highly developed social capital, and vice versa: social capital contributes to and promotes the development of future human capital. While different definitions may accentuate different aspects of social capital, what is clear is that social capital represents a multidimensional construct which emphasizes the importance of human networks and connectedness and tends to improve numerous aspects of the society. Moreover, it is increasingly well recognized that social capital is an important aspect of building and maintaining collective action (Westermann, Ashby and Pretty, 2005). There are three broad categories in which all indicators related to social capital can align: social networks, social norms and social trust (Portela et al., 2013). As already

mentioned, various human capital indicators correlate positively with social capital indicators. Still, relationship multiformity was found, which tells us that some aspects of human capital have a weaker correlation with certain social capital variables, while other aspects, such as education, represent a strong predictor of social capital (Scheffler et al., 2010). Even though the human capital variables are well recognized and frequently used in different purposes, social capital has been neglected for a long time (Imandoust, 2011). However, in recent years there are more and more discussions regarding social capital indicators and their application in research.

1.2. Quality of life

Based on the previous research, both human and social capital tend to correlate positively with subjective quality of life (Portela et al., 2013). World Health Organization (1999; Vuletić and Misajon, 2011) defined quality of life as an individual's perception of standing in a specific cultural, social and environmental context. Somebody's perception of life quality cannot be understood separately from social environment. Subjective quality of life includes life satisfaction, which represents cognitive, long-term aspect, whereas happiness refers to emotional, short-term aspect of quality of life (Yang & Srinivasan, 2016). It is important to emphasize the importance of subjective perception for quality of life. Prior research suggests that self-report represents more useful and precise quality of life indicator, when compared to objective indicators, such as income. For that reason, different self-report measures have been developed and frequently used in order to obtain the highly useful information regarding one's subjective quality of life (Williams & Wood-Dauphinee, 1989).

A normative standard for life satisfaction of western population was determined, based on research conducted by Cummins (1995; Cummins & Nistico, 2001) which could be defined between the range of 70–80% SM. Moreover, Cummins (1998; Cummins & Nistico, 2001) conducted another research, in which he included 44 countries worldwide. Results revealed that life satisfaction of participants from the following research lies in the range of 60–80% SM which was considered as a normative range for the World populations.

1.3. Gender differences in human and social capital

Although little is known about the nature of gender differences related to social capital (Krishna, 2000; Westermann, Ashby and Pretty, 2005), research suggests that women generally tend to achieve more social capital than men. More than that, social capital has been often described as women's capital, especially when taken into account that there were numerous obstacles for women to access economic capital. For that reason, women's role in family and community provides them with strong networks (Moser, 1998; Kofman et al., 2005). Nonetheless, social capital indicators are heterogeneous and broadly defined, and for that reason, various unclear or contrary findings were discovered.

For example, study by Westermann, Ashby and Pretty (2005) revealed that women are more likely to build more social capital that refers to relations in comparison to men. Relational social capital includes informal social relations and networks which are based on norms of collaboration and conflict management. It is believed that the reason for this finding is that women appreciate more collaboration, altruism and conflict resolution. On the other hand, in another study it was found that men are more effective in achieving different types of social capital than women (Van Emmerik, 2006). It is important to note that direct comparisons cannot be conducted due to the differences in operationalization of social capital indicators.

2. Aim of the study

The aim of this study is to explore gender differences in human capital, social capital and subjective quality of life among graduate students.

3. Participants and procedure

The study comprises 356 participants. There were 156 male and 200 female participants, aged from 22 to 42 years ($M=24.47$, $SD=2.312$). All participants are attending Josip Juraj Strossmayer University of Osijek. Presented research was a part of a larger project: "Role of the subjective quality of life in young people intention for regional or international emigration" founded by Josip Juraj Strossmayer University of Osijek. For this specific part of the study, the following measures were used: socio-demographic questionnaire, set of questions regarding social capital, constructed for the purpose of this study Personal Wellbeing Index (International Wellbeing Group, 2013). Based on theoretical background, social capital is defined through three features of social life: networks, norms, and trust in defying social capital. Personal wellbeing index (PWI) was calculated as a mean score across seven domains and it represent satisfaction with life what was the measure of subjective quality of life. The scores were presented in a form percentage of scale maximum (%SM) where higher score represent higher satisfaction with life. Data on human capital such as Croatian and County population, age and education level were collected from Croatian Bureau of Statistics, official census data and reports.

4. Results

Human capital

There has been a steady decrease in the size of the population in Croatia (approx. 1.5% from 2012 to 2015), and also specifically in the East Croatia regions which faces with alarming number of young people who emigrate to developed countries.

Table 1 Net emigration from Eastern Croatia Counties

Županija	Emigration total number					
	2011	2012	2013	2014	2015	2016
POŽEŠKO-SLAVONSKA ŽUPANIJA	1.989	1.983	1.778	2.313	2.951	2.982
BRODSKO-POSAVSKA ŽUPANIJA	2.960	2.838	3.649	4.078	4.511	5.165
OSJEČKO-BARANJSKA ŽUPANIJA	5.547	5.545	6.183	7.260	7.832	9.226
VUKOVARSKO-SRIJEMSKA ŽUPANIJA	3.950	3.429	4.327	5.379	5.671	6.346

Source: Authors' excerpt based on Croatian bureau of statistics data base 2018.

Net emigration from Eastern Croatia still increasing and positive trend is obvious. This was based on available data from Croatian bureau of statistics web site data base. It is hypothesized that real numbers are even higher. At the same time negative natural growth was present for years. All together population (i.e. human capital) of Eastern Croatia decreasing rapidly. According to education level, which is one of important indicator of human capital in one society, younger women dominate among people with higher education these days, compared to historical data when men predominate in higher education level population group. In 2016, which was last published summary data by Croatian bureau of statistics, more women than men acquired higher education degree in all Eastern Croatia Counties.

Social capital

Table 2 Descriptive statistics for the measures of social support and personal contact, together with significance of difference between groups

		Male					Female					t-test (p)
		M	SD	C	Min	Max	M	SD	C	Min	Max	
Social support	Family	4.50	.848	5	1	5	4.51	.857	5	1	5	-.090 (.928)
	Friends	4.25	.784	4	1	5	4.49	.687	5	3	5	-3.07** (.002)
	Neighbor	2.63	1.228	3	1	5	2.50	1.139	3	1	5	.998

		Male					Female					t-test (p)
		M	SD	C	Min	Max	M	SD	C	Min	Max	
												(.319)
Personal contact with:	Family	4.14	.946	4	1	5	4.67	.643	5	2	5	-6.23 ** (.000)
	Friends	4.37	.731	4	2	5	4.54	.648	5	2	5	-2.260* (.024)
	Neighbor	2.70	1.009	3	1	5	2.75	1.036	3	1	5	-.486 (.628)

Legend: M – arithmetic mean, SD - standard deviation, C - central value/median, Min – minimum result, Max – maximum result

Source: Authors' research

Considering that maximal support was answer 5 and 1 is minimal it is obvious that perceived support from family and friends are high. Results revealed statistically significant gender difference in social support related to friends. Women perceive support from their friends to be higher, comparing to men. Also, significant difference was found related to personal contact with family and friends. Again, women tend to contact with their family and friends more often than men, although both groups reported quite frequent contacts with family, and with friends as well (answer 5 = almost every day).

Table 3 Frequency of results on social capital variables and significance of difference between groups

Variable		Male	Female	χ^2 (p)
		N (%)	N (%)	
If you need help, is there anyone you could rely on (excluding your family members)?	Yes	150 (97.4%)	190 (95.0%)	1.322 (.285)
	No	4 (2.6%)	10 (5.0%)	
Have you offered your help to anyone in last month?	Yes	135 (88.2%)	160 (80.0%)	6.870 (.076)
	No	18 (11.8%)	40 (20.0%)	

Source: Authors' research

When asked if they have a person who they could rely on if they need help, most of the participants reported that they do have. Slightly smaller number, but still more than 80.0% of the participants reported that they also have helped someone during last month. Nevertheless, no gender differences were found related to those questions.

Table 4 Descriptive statistics for the social capital variables and significance of difference between groups

	Male					Female					t-test (p)
	M	SD	C	Min	Max	M	SD	C	Min	Max	
Number of close friends	4.83	4.133	4	0	43	4.20	2.086	4	1	15	1.87 (.062)
Do you discuss your personal issues with your friends?	3.94	7.830	3	1	5	4.03	1.096	4	2	5	-6.98** (.000)
Frequency of meeting friends in public place	13.43	13.33	10	0	100	10.25	8.039	10	0	50	2.75** (.006)
Sense of community in Osijek	3.06	.792	3	1	5	3.24	.801	3	1	5	-2.16* (.032)
People perceived as helpful and unselfish	3.21	2.010	3	1	5	2.66	1.029	2	1	5	3.82** (.000)
Trust in people	2.93	.981	3	1	5	3.39	.836	3	1	5	-4.77** (.000)

Legend: M – arithmetic mean, SD - standard deviation, C - central value/median, Min – minimum result, Max – maximum result

Source: Authors' research

Table 2 presents results on various social capital variables. According to the table, no gender differences were found in number of close friends. However, other social capital measures are statistically significant. As expected, there is significant gender difference in discussing personal issues with friends, where women tend to discuss their personal issues with their friends more frequently than men. Also, results suggest that women perceive the sense of community in Osijek to be higher than men. Significant gender difference was found in trust in people. Women report to have more trust in people, comparing to men. On the other hand, results indicate that men meet their friends in public places more frequently than women. Furthermore, there is statistically significant difference in perception of people as helpful and unselfish. Men are more likely to perceive other people to be helpful and unselfish, when compared to women.

Quality of life

Table 5 shows results on Personal wellbeing index and satisfaction with life across seven domains. Although there is no gender difference in total score on PWI, gender difference in six out of seven PWI domains are shown to be statistically significant. These domains are Standard of living, Health, Life achievement, Personal relationships, Personal safety and Future security. Based on the results, men are more likely to score higher results on PWI domains, comparing to women, which means that they tend to be more satisfied with different aspects of life. There is no significant difference in satisfaction with life between men and women.

Table 5 Descriptive statistics for PWI and satisfaction with life, together with significance of difference between groups

	Gender						t-test (p)
	Male			Female			
	M	SD	C	M	SD	C	
Personal Wellbeing Index	69,92	18,15	71,43	60,79	19,89	64,29	4.46** (.000)
Standard of living	64,49	22,30	70,00	59,30	25,25	70,00	2.02* (.044)
Health	72,05	26,29	80,00	58,90	32,74	70,00	4.09** (.000)
Life achievement	74,81	19,76	80,00	66,00	27,07	80,00	3.42** (.001)
Personal relationships	76,86	24,30	80,00	62,15	32,87	80,00	4.68** (.000)
Personal safety	71,09	26,73	80,00	63,20	29,45	70,00	2.61** (.009)
Community-connectedness	67,76	28,95	80,00	63,20	28,17	70,00	1.50 (.136)
Future security	62,37	28,13	70,00	52,80	28,02	60,00	3.19** (.002)
Satisfaction with life in general	71,75	23,68	80,00	68,24	24,11	80,00	1.37 (.172)

Legend: PWI – Personal wellbeing index, M – arithmetic mean, SD - standard deviation, C - central value/median

Source: Authors' research

Discussion

The purpose of this study was to examine are there gender differences in human capital, social capital and subjective quality of life among graduate students from Josip Juraj Strossmayer University of Osijek.

Human capital indicators of Eastern Croatia shows systematic decline in total population. Previous researches and demographic statistic already indicate ageing of the population when women are prevalent in old age groups (Vuletic et al. 2017). According to education level, as one of the important indicator of human capital in one society, in population with higher education under 55 years, women are more prevalent than men. But in population aged 55+ women are more present in

the low education groups (8 years of education and less). In summary, gender difference in education level was present but in different direction in different age groups.

Social capital measures did not reveal systematic gender differences in woman favor. Although no gender differences were found in number of close friends, women reported more engagement in discussing personal issues with friends what was one of the social support resource, which was important to personal quality of life. Women perceive higher sense of the community in Osijek and have more trust in people, comparing to men, which can be explained by women higher orientation to the community i.e. collective. On the other hand, men are more likely to perceive other people to be helpful and unselfish, compared to opinion given by women. This results are valuable for regional social and economic policy planning because social capital is coming to be seen as a vital ingredient in economic development around the world. Previous research suggests that social capital has beneficial effects on many aspects of the community and creates a cohesive society. Given its great influence on the subjective quality of life, it can be said that it is one of the key factors that affect the satisfaction of the life of individuals in a particular community. In our research, men tend to have higher overall subjective quality of life, and satisfaction with different life domains, comparing to women. Noticeable difference was found for health and future security domain. International research revealed that individual subjective quality of life is higher in those communities that report on higher social capital (Putnam, 1993) so fostering development of social capital in one society will bring wider benefits, like better quality of life of the population which consequently brings socioeconomic benefits to the whole society.

Considering that the sample of this study was limited to graduate students and recently graduated young, high educated people, results can be interpreted only for that subpopulation group. More research is needed in order to understand far more about the underlying mechanisms of gender differences in both human and social capital and their implications for social equality and community life. Identifying aspects of social and human capital in relation to the quality of life will contribute to better understanding of the relationship between the economic, social and psychological characteristics of individuals and the whole population, which helps in the design of socio-economic strategies at the regional level.

REFERENCES

Cummins, R. A., & Nistico, H. (2002): *Maintaining life satisfaction: The role of positive cognitive bias*, Journal of Happiness studies, Vol. 3, No. 1, pp. 37-69.

Fujiwara, T. & Kawachi, I. (2008): *A prospective study of individual-level social capital and major depression in the United States*, Journal of Epidemiology & Community Health, Vol. 62, No. 7, pp. 627-633.

Imandoust, S. B. (2011): *Relationship between education and social capital*, International Journal of Humanities and Social Science, Vol. 1, No. 12, pp. 52-57.

International Wellbeing Group (2013): *Personal Wellbeing Index: 5th Edition*, Australian Centre on Quality of Life, Deakin University, Melbourne.

Kofman, E., Phizacklea, A., Raghuram, P., & Sales, R. (2005): *Gender and international migration in Europe: Employment, welfare and politics*, Routledge.

Parts, E. (2003): *Interrelationship between human capital and social capital: implication for economic development in transition economy*, Tartu University Press.

- Portela, M., Neira, I., & del Mar Salinas-Jiménez, M. (2013): *Social capital and subjective wellbeing in Europe: A new approach on social capital*, Social Indicators Research, Vol. 114, No. 2, pp. 493-511.
- Putnam, R.D. (1993): *The Prosperous Community*. The American Prospect, vol. 4 no. 13.
- Scheffler, R. M., Petris, N. C., Borgonovi, F., Brown, T. T., Petris, N. C., Sassi, F., Dourgnon, P., & Sirven, N. (2010): *Social capital, human capital and health: What is the evidence?*, OECD Centre for Education Research and Innovation (CERI).
- Schultz, T. W. (1961): *Investment in Human Capital*, American Economic Review, Vol. 51, pp.1-17.
- Van Emmerik, I. H. (2006): *Gender differences in the creation of different types of social capital: A multilevel study*. Social networks, Vol. 28, No. 1, pp. 24-37.
- Vuletic, G., Erdesi, J. & Misajon, R. (2017): *The relation of human and social capital with quality of life and emigration intention among young professionals*, In: A. Mašek Tonković (Ur.), Zbornik radova 6. međunarodnog znanstvenog simpozija “Gospodarstvo istočne Hrvatske – vizija i razvoj“ (pp. 442-452). Osijek: Sveučilište Josipa Jurja Strossmayera u Osijeku, Ekonomski fakultet u Osijeku.
- Westermann, O., Ashby, J., & Pretty, J. (2005): *Gender and social capital: The importance of gender differences for the maturity and effectiveness of natural resource management groups*, World Development, Vol. 33, No. 11, pp. 1783-1799.
- Williams, J. I., & Wood-Dauphinee, S. (1989): *Assessing quality of life: measures and utility*, In Quality of life and technology assessment (pp. 65-115). National Academy Press, Washington, DC.
- World economic forum (2016): *The Global Gender Gap Report 2016*. Cologny/Geneva, Switzerland.
- Yang, C. & Srinivasan, P. (2016): *Life satisfaction and the pursuit of happiness on Twitter*. PloS one, Vol. 11, No. 3, p.e0150881.