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# Spatial characteristics of sports-related non-profit organisations in Hungary

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**Abstract.** The primary aim of the present work is to analyse the spatial characteristics of non-profit organisations working in the field of sports in Hungary according to three aspects (number of organisations, revenues and employment conditions of organisations). The most important conclusions of the paper are the following: studying the characteristics of non-profit organisations indicating sports as their main activity at different settlements, the settlements with higher number of inhabitants are in better positions; within the whole non-profit sector sports-related non-profit organisations are overrepresented in smaller settlements; considering factors determining distribution at settlement level, strongest correlation was found to income conditions.

**Keywords:** non-profit organisation, sports, Hungary, spatial characteristics, determining factors

## Introduction

The increasing social-economic-political significance of sports could be observed in Hungary in recent decades therefore research focused on institutions that have important roles in sports-related activities. Such organisations can be classified into three major – overlapping from certain aspects – groups (Hoye et al., 2015):

- public sector: central and local governmental organisations that have important roles in forming development concepts apart from control;

- commercial or professional sports organisations: profit-oriented sports clubs, companies operating sports establishments, media companies;
- non-profit or voluntary sector: organisations based on local communities, national professional sports associations.

Significance of the latter group increased in the last decade from several points of view. On the one hand, increasing of the civil sphere is general and appears in sports as well. On the other hand, nowadays the society pays increasing attention to healthy life an outstanding element of which is sport. Organisation of activities associated with them is, however, truly effective if organisations closest to the inhabitants are involved as well.

As a result of the above, the target group of research associated with sports was non-profit organisations. Studies explored – among others – the most important features of their operation and the characteristics of those working for them (e.g. Misener & Doherty, 2013; Wicker & Breuer, 2013; Sparvero & Kent, 2014; Bang, 2015; Nowy et al., 2015; Wicker & Frick, 2016).

A significant disadvantage of the research, however, is the fact that they treated non-profit sport organisations as one single unit and much less attention was paid to exposing differences among regions or settlements that could improve significantly the understanding of the processes (Ilieş et al., 2014).

Based on the above, the primary aim of the present work is to analyse the spatial characteristics of non-profit organisations working in the field of sports in Hungary according to three aspects (number of organisations, revenues and employment conditions of organisations). The paper also describes the differences among them according to the host settlements and exposes the reasons behind these differences.

### **Materials and methods**

Selection of the related non-profit organisations (indicated sports as their main field of activity based on Hungarian NACE code) for studying their regional differences was based on the data for the year 2013 of the Cég-Kód-Tár (Company Code Register) published by the Hungarian Central Statistical Office (HCSO). According to the Hungarian NACE, eight activities are related directly to sports: operation of sports establishments, trade of sports equipment, loan of leisure and sports equipment, sports and leisure training. Analysis of data was performed using the software SPSS while maps were made using the ArcView software.

### **Results**

Non-profit organisations have had an important role in the sports life of Hungary for a long time and this can be explained by several factors. On the one hand, numerous fencing, shooting, gymnastic and athletic clubs were formed before World War II involving primarily the high-profile members of the society (Bukta, 2005). On the other hand, between 1945 and 1990 – besides the almost complete elimination of certain fields of the sector – sport was one of the activities where civil organisations remained (Bukta, 2013). These associations, however, were operated with significant political control with only one or two exceptions (e.g. chess, hiking)

(Bakonyi, 2007). Considering the above, it is not surprising that – despite the apparent decline due to the economic recession from the second half of the 1970s – more than 1/3 of the non-profit organisations were organisations dealing with sports prior to the political regime change (fig. 1).

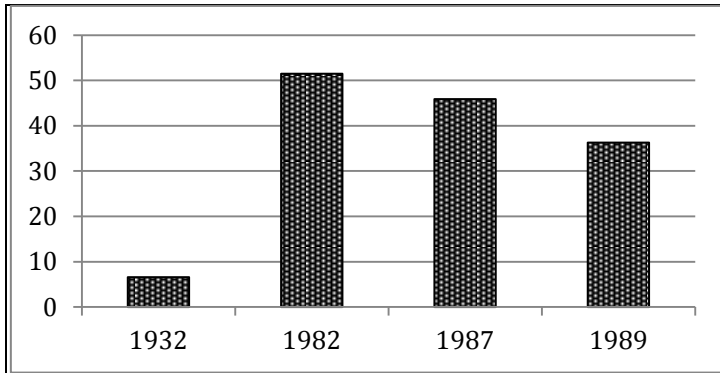


Figure 1. Ratio of sports organisations within all organisations over the 20th century (Source: Bocz, 2009, 125)

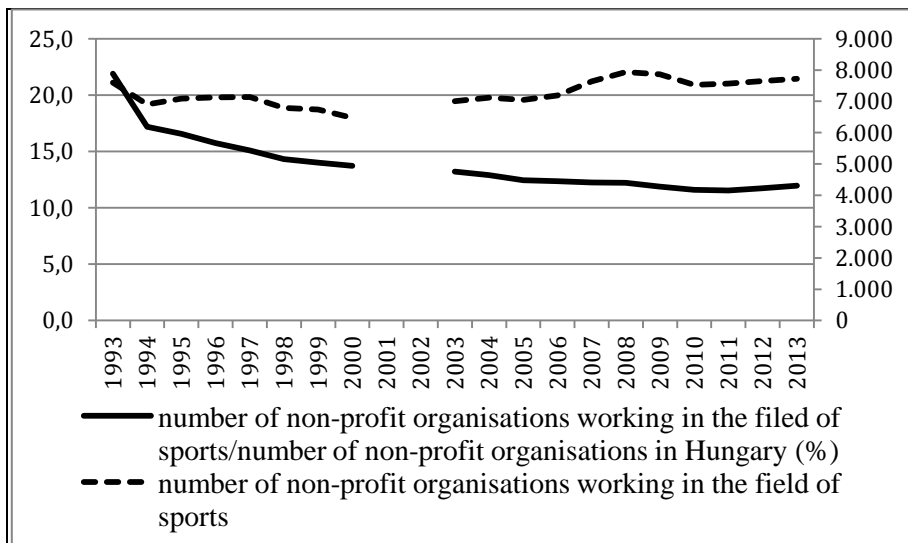


Figure 2. Most important factors of sports-related non-profit organisations between 1993 and 2013 (data of the HCSO for 2001 and 2002 were based on representative data surveys therefore they are not reliable)(Source: Balogh et al., 2003; KSH, 2014b; www.ksh.hu)

Studying the time period after the regime change (fig. 2) sports organisations were stagnating regarding absolute numbers (slight increase can be observed in the new millennium) while their ratio regarding the whole sector of non-profit organisations was decreasing slightly (Bukta, 2005; 2013). A high number of non-profit organisations were closed because of financial difficulties due to the crisis among state companies that could provide the financial basis for the associations prior to 1990. This process was only partly counterbalanced by organisations and

foundations formed in the fields of leisure and new sports (e.g. fitness, American football, curling). Furthermore, with complete political freedom and the increase of tasks less covered by the state (e.g. social supply) the number of civil organisations increased significantly at national level.

Analysing the regional conditions of the related organisations (table 1) several clear tendencies can be observed. Regarding the values for one thousand people, a gradual increase can be seen after the bottom value characteristic for the category of 3–5 thousand people followed by a decrease after the top values for the category of 50–100 thousand people. It is worth noting that greatest ratio of the studied organisations with the whole non-profit sector operate in the smallest settlement category. This can be explained by the fact that education and cultural organisations that are important in the field of non-profit organisations are not present at these settlements therefore their role are taken over by organisations working on sports and leisure time utilisation.

Table 1. Characteristics of sports-related non-profit organisations at settlements of different size in Hungary in 2013

size of settlements	A	B	C
less than 1,000 inhabitants	129.91	101.50	14.00
1,000 – 2,999 inhabitants	106.14	82.93	14.79
3,000 – 4,999 inhabitants	94.26	73.64	13.57
5,000 – 9,999 inhabitants	104.31	81.49	13.58
10,000 – 14,999 inhabitants	112.76	88.10	12.13
15,000 – 24,999 inhabitants	112.94	88.24	10.39
25,000 – 49,999 inhabitants	156.68	122.41	11.45
50,000 – 99,999 inhabitants	175.49	137.11	10.41
100,000 – 250,000 inhabitants	137.00	107.04	8.01
Budapest	145.53	113.70	6.84

A – number of sports-related non-profit organisations by 100 thousand people (pieces) in settlements of different size, B – ratio of sports-related non-profit organisations by 100 thousand people (pieces) in settlements of different size compared to the national value (%), C – ratio of related non-profit organisations compared to the whole non-profit organisations (%)

Source: KSH 2014a

Studying employment conditions according to settlement size (table 2) no major trends can be identified: best values are characteristic for the categories of 1–3 thousand and 100–250 thousand people (almost the two extreme values). Based on the calculated values, comparing the data of the related organisations to that of the complete non-profit sector lower values are obtained for all categories except for the group of 100–250 thousand people and for Budapest. This fact suggests that employment strength of the sports-related non-profit organisations at smaller settlements is smaller than that of the whole non-profit sector (however, it exceeds the national average) and opposite trends are characteristic for only the largest settlements. This could be explained primarily by that the centres of the national professional organisations (e.g. Hungarian Handball Federation, Hungarian Football Federation) employing a high number of employees are in Budapest and non-profit organisations employing a high number of people operating sports establishments owned by local governments are also found mostly in larger settlements.

Table 2. Employment conditions of sports-related non-profit organisations in settlements of different size in Hungary in 2013 (%)

	A	B	C	D	E	F	G	H	I	J	K
0 employee	50.3	44.5	49.5	49.9	48.5	51.3	53.0	57.2	51.8	62.2	52.8
1 employee	48.6	54.5	49.3	48.4	50.6	46.5	45.2	42.0	46.1	36.2	45.7
2 employees	0.3	0.4	0.4	0.3	0.0	0.5	0.4	0.0	0.2	0.4	0.3
3-4 employees	0.1	0.2	0.2	0.7	0.0	0.3	0.3	0.2	0.5	0.3	0.3
5-9 employees	0.3	0.2	0.4	0.3	0.4	0.5	0.3	0.1	0.3	0.5	0.3
10-19 employees	0.5	0.2	0.2	0.3	0.4	0.6	0.5	0.2	0.6	0.2	0.4
20-49 employees	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.1	0.2	0.2	0.1
50-99 employees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1
100-149 employees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
150-199 employees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-249 employees	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total value	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
calculated value	100. 7	103. 7	100. 8	102. 5	101. 6	102. 3	100. 7	96.0	103. 1	94.0	100. 0
calculated value - in case of all sector	101. 3	105. 1	108. 0	110. 4	105. 5	106. 5	102. 8	96.8	101. 0	91.5	100. 0

A: less than 1,000 inhabitants, B: 1,000-3,000 inhabitants, C: 3,000-5,000 inhabitants, D: 5,000-10,000 inhabitants, E: 10,000-15,000 inhabitants, F: 15,000-25,000 inhabitants, G: 25,000-50,000 inhabitants, H: 50,000-100,000 inhabitants, I: 100,000-250,000 inhabitants, J: Budapest, K: Hungary

calculated value - value obtained by weighted adding of data belonging to the various employment categories compared to the national values (%)

Forrás: KSH 2014a

Analysing the revenue of the organisations (table 3) clear differences among the studied settlements can be observed: organisations operating in larger settlements have better conditions than those at smaller settlements. High values for Budapest are especially outstanding. This can be explained by the already mentioned fact that the national professional associations operating in Budapest that organise the activities of certain fields of sports receive great income from various sources (e.g. state support, sponsorships).

Analysing the factors influencing the distribution of related organisations according to settlements (table 4) closest correlation (increasing values with increasing relative number of organisations) can be detected in the case of domestic income per inhabitant while poorest correlation can be detected in the case of net revenue of selling per inhabitant. Conclusions drawn from the data of the table are supported by Pearson's correlation coefficient as well the value of which is greatest in the case of domestic income per one inhabitant (although this is still smaller than 0.1 but indicates also significant correlation at 0.01 level) and smallest in the case of the net revenue of selling.

Table 3. Revenue conditions of sports-related non-profit organisations in settlements of different size in Hungary in 2013 (%)

	A	B	C	D	E	F	G	H	I	J	K
0-20 million HUF	99.3	99.6	99.3	97.7	98.5	97.6	97.0	97.2	96.8	94.6	97.4
21-50 million HUF	0.4	0.3	0.2	0.5	0.5	1.0	1.7	1.7	1.5	1.8	1.1
51-300 million HUF	0.1	0.2	0.5	1.7	1.0	1.0	1.0	0.9	1.3	3.3	1.3
301-500 million HUF	0.1	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.2	0.3	0.1
501-700 million HUF	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.1	0.1	0.0	0.1
701-1,000 million HUF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,001-2,500 million HUF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
2,501-4,000 million HUF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total value	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
calculated value	95.8	95.0	95.8	100.5	97.6	100.2	100.3	100.7	101.2	106.5	100.0
calculated value – in case of all sector	94.8	94.9	98.5	101.0	100.3	100.2	100.6	98.5	100.2	103.2	100.0

A: less than 1,000 inhabitants, B: 1,000-3,000 inhabitants, C: 3,000-5,000 inhabitants, D: 5,000-10,000 inhabitants, E: 10,000-15,000 inhabitants, F: 15,000-25,000 inhabitants, G: 25,000-50,000 inhabitants, H: 50,000-100,000 inhabitants, I: 100,000-250,000 inhabitants, J: Budapest, K: Hungary

calculated value – value obtained by weighted adding of data belonging to the various employment categories compared to the national values (%)

Forrás: KSH 2014a

Table 4. Average of the values per 100 thousand people of sports-related non-profit organisations in settlements with different social and economic factors in 2013

	A	B	C
first seventh	64.3	79.2	94.6
second seventh	81.7	98.8	149.8
third seventh	94.2	96.9	96.1
fourth seventh	103.7	131.7	101.5
fifth seventh	128.0	130.2	113.2
sixth seventh	135.0	138.7	109.4
seventh seventh	144.9	140.4	141.3

first seventh – settlements with the worst values regarding the given factor, seventh seventh – settlements with the best values regarding the given factor, same number of settlements belong to each seventh

A – domestic income per one inhabitant, B – unemployment rate, C – net revenue of selling per one inhabitant

Source: KSH, 2014a; TEIR

Studying the strength of the sports-related non-profit organisations in the case of settlements larger than 10 thousand inhabitants (fig. 3), two major centres can be identified: the central and southern part of Transdanubia (e.g. Szekszárd, Balatonfüred, Kaposvár, Bonyhád, Paks) and Northern Hungary (e.g. Gyöngyös, Eger, Tiszaújváros, Salgótarján). There is a belt of settlements with low values in the central

region of Hungary striking west-south (e.g. Csorna, Dorog, Mór, Bicske, Cegléd, Kiszúszállás, Tiszaföldvár) involving both developed and underdeveloped regions.

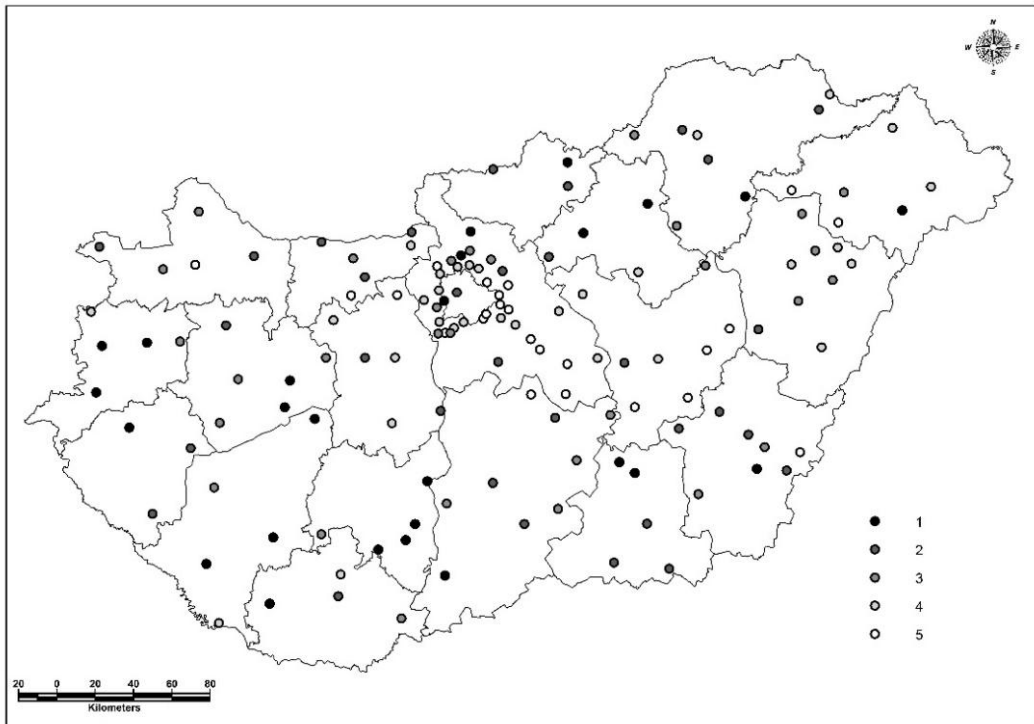


Figure 3. Rank of strength for the studied Hungarian settlements regarding sports-related non-profit organisations in 2013 (the maximum value – Szekszárd – in percentage, dividing settlement number into equal parts, 1: 54%-100%; 2: 46%-53%; 3: 33%-45%; 4: 25%-32%; 5: 0%-24%) (Source: KSH, 2014a)

Certain relationships can be identified when the factor indicating the significance of sports-related non-profit organisations are compared to factors indicating economic development (Table 5): in most cases lower sports strength values belong to decreasing values of the latter factor.

Table 5. Average values of factors indicating the social and economic development of the studied settlements compared to the strength of sports-related organisations in 2013

	A	B	C
first sixth	962.7	5.28	9,437.3
second sixth	892.4	5.50	9,141.0
third sixth	892.7	4.97	6,330.9
fourth sixth	832.1	6.01	6,189.1
fifth sixth	900.1	6.18	4,529.3
sixth sixth	765.1	5.80	4,823.8

A - domestic income per one inhabitant (1,000 HUF/person), B - unemployment rate (%), C - net revenue of selling per one inhabitant (1,000 HUF/person)

Source: KSH, 2014a; TEIR

## Conclusions

The most important conclusions of the paper are the following:

Studying the characteristics of non-profit organisations indicating sports as their main activity at different settlements, the settlements with higher number of inhabitants are in better positions.

Within the whole non-profit sector sports-related non-profit organisations are overrepresented in smaller settlements.

Considering factors determining distribution at settlement level, strongest correlation was found to income conditions.

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