

THE ROLE OF SPORT INFRASTRUCTURE: USE, PREFERENCES AND NEEDS

Adrián Nagy – Júlia Tobak

University of Debrecen, Faculty of Economics and Business

Abstract: *Leisure and mass sports are very significant both socially and economically. Physical activities contribute to forming a healthier society. Skills and abilities developed by sport promote people's well-being and directly improve their physical, mental and psychological performance this way producing better quality of life. The state of health of the workforce is a more and more frequent question in developed and developing economies but mostly in the western civilizations. Researches prove that those who are more active physically can perform better at their work and are more efficient in their jobs. They claim less sick leave benefit and their health insurance costs are lower, this way preserving the health of the workforce can be an investment in the future.*

If we want the population to live in a healthier way and do more sports only education and motivation are not enough, it is very important to provide the appropriate infrastructural background as well. People can have a wide range of choice provided by the local sports establishments and companies and the possibilities resulting from sport infrastructure investments. The effects of sport infrastructure investments and developments are many folded and long-term, but it is worth approaching their benefits from different points of view. Researching this topic can contribute to better understanding of the society from the points of view of health care, economy and sociology. The aim of our work was to examine the sporting habits and sports consumption. In order to get to know the consumers we carried out a survey with 350 participant with the help of an online questionnaire. When analyzing it I focused on the answers given by those who were active in sports, which was the 75% of total sample. In the analysis of the answers and relations between the questions and the different factors we used the SPSS Statistics program. Providing sport establishments and facilities and initiating such investments are highly important for each region. From the answers of the questioned we can learn what facilities are available for the consumers and what they miss most in the living area.

Keywords: *sporting habits, sport infrastructure, sport facilities, sports consumption (JEL code: L83)*

INTRODUCTION

Leisure and mass sports are believed to be of social significance. Sports play a major part in the life of the 21st century health conscious society. According to *Bács-Bácsné* (2014) sport has to be present in our every day life, such as a hobby and an activity we do for our health: and it is also very important that it has to appear as a social and economic power in the mind of people. It is fair to say that sport is a crucial factor in shaping society, either considering its recreational industry features or its sporting activities. The education ideology of a healthy society seems to be a rather complex and intricate issue, in which loads of individual, societal, economic and social factors play a role. *Borbély* (2014) claims to there is an essential relationship between sports and economy that is why requires much deeper economic skills. The research of *Li et al.* (2014) shows that people participating in sports on regular basis provide better performance at work. According to *Budavári* (2007) the impact of regular physical activity on body and soul is multifaceted; therefore advantage is given to it when planning public health programmes. On the bases of the research of *Fenyves et al.* (2015) creating a sport event for the public is a capable way to forming cross-border relationships, too. Knowing about sports and sport consumption habits of the population will contribute to a better understanding of society (*Böcskei et al., 2015*). Sporting demands of the population

are influenced by either being devoted to Olympians, sports legends, premier league or ordinary teams, as well as being devoted either to amateur or professional sports people, or simply to a certain type of sport. Together with intrinsic motivation and attitudes all add up in influencing the demands of society. According to *Éber* (2008) because of the increased importance of free time and its significance in organising society, contemporary society is also tended to be called leisure society. One of the trends of life style change is the increasing significance of getting experiences, which seems to reshape society. In order that the population live a more health conscious way and pursue more sports, motivation and providing health education will not suffice, as proper infrastructural background is also crucial. Sport infrastructural investments and developments result multifaceted and long term impacts. According to *Kecse Nagy Sándor* (2014) the sport is a service. From the viewpoint of urban development, promoting services provided for the public welfare may be extremely important for “community development”. “Sport offers tremendous possibilities for improving physical health and social cohesion” - *Breedveld* (2014). *Meggyesi* (2006) According to *Seifred - Clopton* (2013) shaping a more “robust” society requires support from urban development. The construction of a sports facility contributes to renew its local and wider environment. In this way it redounds a part of a city to offer more types of relaxation and entertainment facilities -*Kozma* (2014).

Material and method

An online survey based on a questionnaire with 28 questions was conducted in order to explore the views of the consumption side using sport infrastructural facilities. In two months time 350 people answered the questions concerning the population's sporting and sport consumption habits. The results constitute a sample, whereas concerning the whole lot, they are only of informational nature. The survey is not representative.

The questionnaire filtered out those, who did not pursue sports on a regular basis, since their opinion did not count relevant, therefore the opinion of only 75% of the 350 respondents (264) were dealt with.

We were able to explore the population's opinion on the basis of answers given to the questions with a definite end purpose. We touched upon the motivation levels of pursuing sports, the character, frequency and facilities of the pursued sports. Our main priority was to get to know consumer habits, demands and preferences. The correlation between the questions was examined by the aid of SPSS Statistics program. To do the methodological analyses we used the notes of *Babbie* (2001), *Tomcsányi* (2000) and *Sajtos-Mitev* (2007). By examining the levels of significance (Chi2-test), we can show where the correlation between variables is the strongest or weakest, respectively. Data of adjusted residuals describes the degree of significant correlation. If the value higher than 2, the relationship is strong and it makes Cramer's V stronger. If the value is under -2 there is no correlation. The indicator of Cramer's V shows how strong the relationship is between the examined questions. The value of this indicator can range from 0 to 1. The exact rates are displayed between brackets (α ; Cramer's V), and (%; adj. residuals) in the order, which is shown here. The results are included in the next chapter.

The demographic data of the 350 people sample are summarised in the following table.

Distribution of respondents, in terms of their demographic features (n=350)

<i>Gender</i>	<i>No of pers.</i>	<i>%</i>
women	236	67,4
men	114	32,6
<i>Age group</i>	<i>No of pers.</i>	<i>%</i>
13-29 years of age	269	76,9
30-49 years of age	43	12,3
Over 50 years of age	38	10,8
<i>Type of residence</i>	<i>No of pers.</i>	<i>%</i>
Budapest	45	12,9
large town	77	22,0
medium size town	135	38,6
small town	54	15,4
village	39	11,1

<i>Highest level of education</i>	<i>No of pers.</i>	<i>%</i>
Max. 8 years primary school	32	9,1
Secondary school final exams	95	27,1
Vocational	37	10,5
Higher education	186	53,1
<i>Occupation</i>	<i>No of pers.</i>	<i>%</i>
student	171	47,1
employee	142	40,5
entrepreneur	22	6,2
pensioner	3	0,8
housewife	3	0,8
unemployed	9	2,5

Source: own compilation

Results

The main focus of the research was surveying sporting habits and demands. Several studies exist about participation rates, motivations, sport preference and influencing factors. Among other researches I used the ones of new *Eurobarometer* (2014), *Neulinger* (2007) and *Perényi* (2012).

The results and the correlation between the questions are discussed in the present chapter. It is crucial to know about the general opinion of the population about doing or playing sports. Physical activity, i.e. pursuing sports as such plays an important part in everyday life. The following table demonstrates what the population – the whole sample (n=350) - think about sport and what prejudices and attitudes, impressions and preferences they have in connection with pursuing sports. On the basis of the respondents' opinions, their preference order is set up like this.

Preference order of population (n=350)

<i>order</i>	<i>Designation</i>	<i>No of pers.</i>	<i>%</i>
1	Preserving health	283	80,8
2	Gives energy, refreshes	257	73,4
3	Relaxation, recreation	246	70,2
4	Stress release	228	65,1
5	Preserving and shaping figure	220	62,8
6	Friends, team	176	50,2
7	Develops, educates	128	36,5
8	Tiring	48	13,7
9	Time consuming	35	10,0
10	Costly	29	8,2
11	Injuries	24	6,8
12	Other	14	4,0

Source: Own compilation

In order that conscious consumers of sports preserve their health, they align their sports activity with their particular state of health. The result of the research of Perényi (2012) shows that the primary purpose of the younger generation is to preserve health, too. Public opinion about sports is positive. The results also prove that the public is aware that sports will do well both to the mind and body.

Most of the respondents chose individual sports for the sport they like doing most (62,57%).

E.g. running, swimming, cycling, athletics and some other sports, too can be classified as individual sports. Hiking is a typical outdoor sport. Football and handball are in the first places in ball games. The sport categories in the first three places have traditions in Hungary.

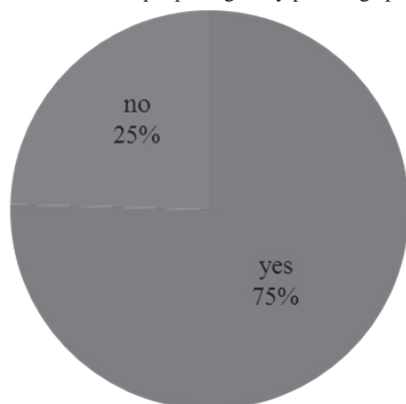
Order of most favourite sports pursued (n=350)

	Designation	No of pers.	%
1	Individual sports	219	62,6
2	Outdoor sports	194	55,4
3	Ball games	148	42,3
4	Group trainings	114	32,6
5	Sports pursued in pairs	107	30,6
6	Gym	100	28,6
7	Social sports	88	25,1
8	Other sports	83	23,7

Source: Own compilation

Nearly 75% of all the respondents (n=350, 100%) do or play sports on a regular basis (Figure 1). In the further analysis only the 264 people who regularly do or play sports will be considered 100 % (n=264=100%).

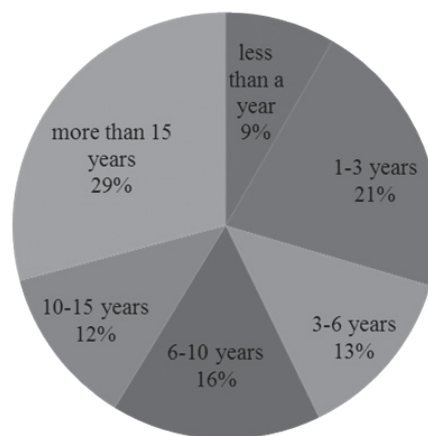
Figure 1: Distribution of people regularly pursuing sports (n=350)



Source: Own compilation

There is a definite significant correlation ($\alpha=0,000$; Cramer's $V=0,249$) between the age and regularly doing or playing sports. (Figure 2) The surveyed people in the 13-29 age group typically have done sports for 6-10 years on a regular basis (19,8%; adj.=3,0). Respondents in the 30-49 (47,8%; adj.=3,4) and the over 50 (52,6%; adj.=3,7) age groups have typically done sports for more than 16 years.

Figure 2: How long have you regularly pursued sports? (n=264)



Source: Own compilation

In the following table the sports actually pursued and sports most often pursued are shown side by side. Here again, the most typical individual and team sports, outdoor sports and ball games are in the first places in Hungary.

Pursued sports and most often pursued sports (n=264)

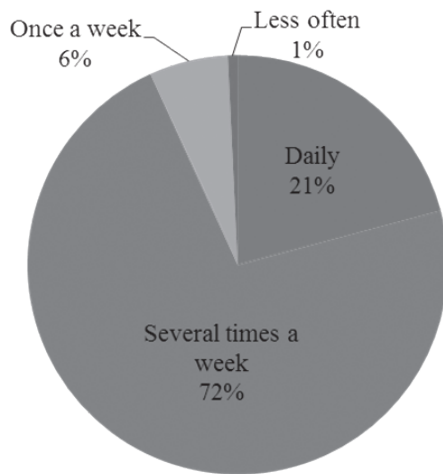
PURSUED SPORT			
	Designation	No of pers.	%
1	Individual sport	190	71,9
2	Outdoor sport	138	52,3
3	Group trainings	102	38,6
4	Ball games	80	30,3
5	Gym	70	26,5
6	Sports pursued in pairs	67	25,4
7	Other sports	57	21,6
8	Social sports	22	8,3
MOST OFTEN PURSUED SPORT			
	Designation	No of pers.	%
1	Individual sport	118	44,7
2	Outdoor sport	78	29,5
3	Group trainings	55	20,8
4	Ball games	51	19,3
5	Other sports	42	15,9
6	Gym	41	15,5
7	Sports pursued in pairs	25	9,5
8	Social sports	3	1,1

Source: Own compilation

The research of European Commission (2013) shows that 41% of Europeans exercise or play sport at least once a week. Comparing the results with the survey of 2009, there has been a positive change (+10%) in Hungary in the proportion of respondents who exercises or plays sport regularly. An important proportion of EU citizens (59%) never or seldom

do so. Those who never does exercises or plays sport has increased from 39% to 42%, while in Hungary that rate decreased with 9% (53% à 44%) since 2009. A research claims that „People in some socio-professional categories are also more likely to exercise or play sport at least once a week”. Studying sports consuming habits of consumers, one of the basic questions is the frequency of the physical activity. *Figure 3* demonstrates that more than 72 % of the people regularly pursuing sports actually do sports several times a week. It is even more encouraging, that nearly 21 % of them pursue sports on a daily basis. Contrasting the frequency of pursuing sports and place of residence and non variables, significant correlation can be pointed out ($\chi^2=0,048$; Cramer's $V=0,144$). 90,7 % of women (adj.=3,5) in large towns pursue sports several times a week.

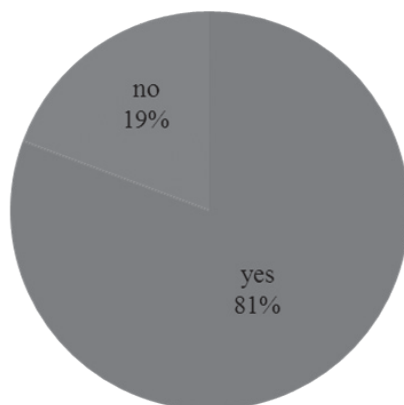
Figure 3: Distribution of frequency of pursuing sports (n=264)



Source: Own compilation

80,68% of the respondents would pursue sports more if they had more opportunities. (*Figure 4*)

Figure 4: Distribution of question, ‘Would you do sports more often if you had the opportunity?’ (n=264)



Source: Own compilation

From sports consumers’ perspective, two key points of the research are the expected sports service and the actual sport service provided. The following table contains the actual and expected venue of sporting activities. There is not a significant difference between the actual and the expected demands however, it is an interesting fact that demands for pursuing outdoor sports are higher than the number actually making use of this opportunity.

Venue of sports (n=264)

WHERE DO YOU PURSUE SPORTS?			
	Designation	No of pers.	%
1	Outdoors	145	54,9
2	Fitness centre	98	37,1
3	In gym	77	29,2
4	At home	58	21,9
5	Other	9	3,4
6	Sports grounds	6	2,3

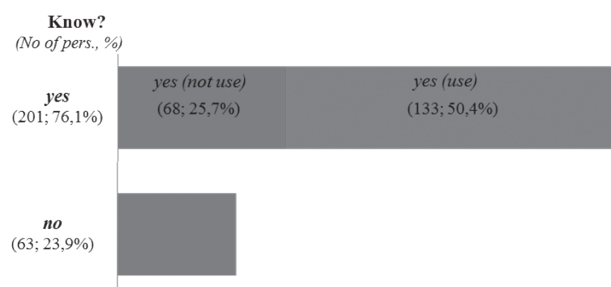
WHERE WOULD YOU LIKE TO PURSUE SPORTS?			
	Designation	No of pers.	%
1	Outdoors	199	75,4
2	In gym	65	24,6
3	Fitness centre	64	24,2
4	Sports grounds	46	17,4
5	At home	28	10,6
6	Other	1	0,4

Source: Own compilation

Choosing the venue of sport depends on the preference of the sport consumer, but the sport infrastructural background also plays a part, as well as the accessibility of sports facilities. The appearance of outdoor sports in the first places is because physical activities in the fresh air have become more and more popular.

The ratio of those who know about free sports facilities are 76,1%. Only 50,4% (264=100%) of respondents who regularly do or play sports make use of the free facilities. *Figure 5* graphically demonstrate this.

Figure 5: Knowing about free of charge sports facilities and making use of them (n=264)



Source: Own compilation

In order that we get to know about the real sports consumption of consumers, we had to find out which facilities they use out of the already existing ones.

Sport grounds are used most, out of the already existing sports facilities. For example basket ball courts, football grounds and extreme sports facilities can be classified here. Not surprisingly, it is the bicycle paths which are in the second place in terms of usage of sports facilities, then parks, pools and free physical education sessions and outdoor gym-parks in the ‘other’ category. In respect of residence type and usage, people in small towns most typically use parks for pursuing sports. ($\chi^2=0,008$; Cramer’s $V=0,201$) (14,5%; $adj=2,3$)

Order of most used facilities

	Designation	No of pers.	%
1	Sports grounds	50	14,30
2	Bicycle paths	40	11,40
3	Park	24	6,90
4	Other	24	6,90
5	Outdoor gym park	12	3,40

Source: Own compilation

Individuals who actually exercise at home ($\chi^2=0,08$; Cramer’s $V=0,273$), in the gym ($\chi^2=0,02$; Cramer’s $V=0,26$) and in fitness centres ($\chi^2=0,021$; Cramer’s $V=0,219$) miss sports facilities in the neighbourhood where they live most.

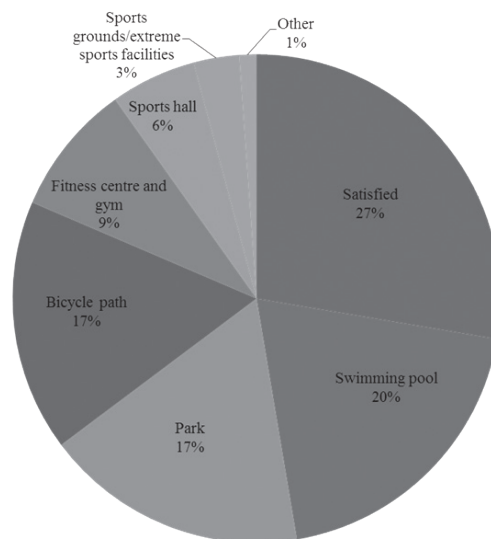
Most individuals exercising at home miss other possibilities (80%; $adj.=3,3$) most, whereas people exercising in the gym miss parks most (45,6%; $adj.=2,2$), and those exercising in fitness centres miss the sports hall 65,2%; $adj.=2,6$).

Those whose first preference exercising at home ($\chi^2=0,000$; Cramer’s $V=0,309$) miss “other” possibilities most (60%; $adj.=3,5$). Swimming pool was mentioned as other possibility/facility and wall climbing halls and extreme sports facilities. Those who would rather exercise in sports centres, miss sports halls (56,5%; $adj.=3,6$). Those who would exercise in sports grounds ($\chi^2=0,000$; Cramer’s $V=0,418$), miss sports halls most (60,9%, $adj.=5,7$). Those who would like to exercise in the fresh air ($\chi^2=0,028$; Cramer’s $V=0,214$), do not miss the gym at all (44,8%; $adj.=2,5$).

In order that we can get to know about consumers’ expected sports demands, we asked them what they missed most at the place where they live.

As the greatest percentage of respondents is from medium size and large towns, they have more sports facilities at their disposal, because the infrastructural circumstances are more favourable where they live. Figure 6 shows that because of the reason just mentioned, the largest proportion of respondents are satisfied with their opportunities, but they miss the swimming pool, parks and bicycle paths.

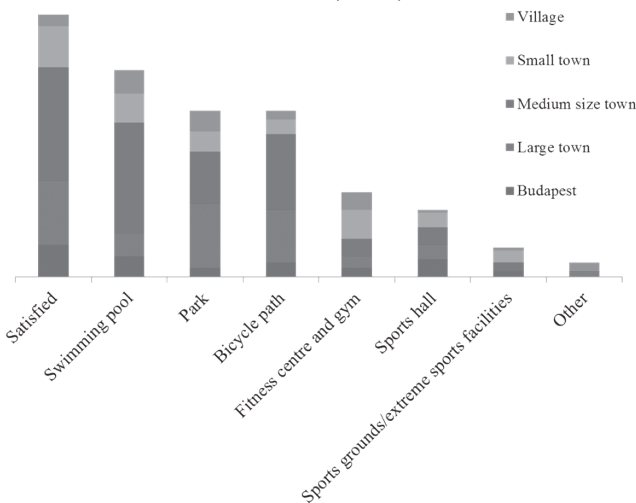
Figure 6: Distribution of most missed sports facilities (n=264)



Source: Own compilation

The correlation between the residence of ‘triathlete sample’ and sports facilities missed by them is demonstrated in figure 7.

Figure 7: Distribution of mostly missed sports facilities with respect to residence (n=264)



Source: Own compilation

Results ($\alpha=0,000$; Cramer’s $V=0,227$):

- villages, free sports facilities in category “other” (9,1%; $adj=3,8$)
- people from small towns, mostly sports grounds/extreme sports facilities (7,3%; $adj=2,1$), fitness centres and gyms (18,2%; $adj=2,8$),
- people from medium size towns, mostly the swimming pool (27,9%; $adj=2,7$),
- large town people, mostly miss bicycle paths (27,2%; $adj.=2,9$) in their residence
- people from Budapest, mostly miss sports halls (16,2%; $adj.=2,4$) where they live.

CONCLUSION

On the basis of the results of the research, it is fair to say that infrastructural developments and investments are necessary so as to provide sports facilities. The social importance of sport as a product is significant. Getting to know about motivation, current habits and studying local demands and possibilities were in the focus of our research. On the basis of the results of the questionnaire we found out why the population pursue sports, whether they know about free sports facilities where they live and whether they make use of them or not, furthermore what facilities they miss most.

Most of the respondents pursue sports in order to become or keep fit, to relax and for recreation. A large percentage of them know about sports facilities, which they can use free of charge and they are satisfied with them, however they would pursue sports more if they had some additional possibilities. Sports facilities missed most of all by the population are swimming pools, parks and bicycle paths. It is the sports service providers' responsibility to ensure infrastructural background for the public's gaining experiences. The way sports service providers inform the public about sports opportunities is of utmost importance. Appropriate marketing activities are indispensable for the public to be aware of sports opportunities. It is necessary to focus on sports consumers and serve their needs. In order to be able to adapt to the new trends in sport, it is required to research the needs of the consumers continuously. Ensuring sport infrastructure facilities is an investment in the healthy society.

REFERENCES

- Babbie E. A társadalomtudományi kutatás gyakorlata. Budapest: Balassi Kiadó, 2001:515-521
- Bács Z., Bácsné Bába É. Sportkoncepció és szervezeti megvalósítása a Debreceni Egyetemen. Magyar Sporttudományi Szemle. XI. Magyar Sporttudományi Kongresszus; 2014 Jun 5-7; Debrecen, 2014:18
- Borbély A. A sportközgazdász-képzés szerepe a felsőoktatásban. Magyar Sporttudományi Szemle. XI. Magyar Sporttudományi Kongresszus; 2014 Jun 5-7; Debrecen, 2014:21
- Böcskei E. – Fenyves V. – Zsidó K. – Bács Z. Expected Risk Assessment – Annual Report versus Social Responsibility. SUSTAINABILITY 7:(8) pp. 9960-9972. 2015.
- Breedveld. Sport-participation: challenges to national and European sport sciences and sport policymakers. Magyar Sporttudományi Szemle. XI. Magyar Sporttudományi Kongresszus; 2014 Jun 5-7; Debrecen, 2014:23
- Budavári Á. Sportpszichológia. Budapest: Medicina Könyvkiadó Zrt, 2007
- European Commission. Sport and physical activity. Special Eurobarometer. 2014:8
- Éber MÁ. Túl az élménytársadalmon – avagy az élménytársadalom másfél évtizede, Szociológiai Szemle 2008 18(1):78-105.
- Fenyves V., Becsky A., Dékán T., Nyul B. Student expectations on sports festivals with a view to the estimation questionnaire on Campus Sports Festival. APSTRACT 2015 (1-2) Vol. 9. ISSN 1789-787
- Kecse-Nagy S. Sport szponzorszervezés.
http://mtfsz.hu/sajat_fajlok/marketing/szponzorszervezes.pdf (downloaded: 2014.10.30.)
- Kozma G. A sportlétesítmények szerepe a városfejlesztésben: a debreceni Nagyerdei Stadion példája. Debreceni Egyetem. 2014
- Li K, Ianotti RJ, Haynie DL, Perlus JG, Simons-Morton BG. Motivation and planning as mediators of the relation between social support and physical activity among U.S. adolescents: a nationally representative study: International Journal of Behavioral Nutrition and Physical Activity. <http://www.ijbnpa.org/content/11/1/42> (downloaded: 2014. 05. 10.)
- Meggyesi T. Településfejlesztés. BMGE Egyetemi jegyzet 2006:15
- Neulinger Á. Társas környezet és sportfogyasztás. A folyamatos megerősítést igénylő tanult fogyasztás. Ph.D. értekezés. Budapesti Corvinus Egyetem. Gazdálkodástani Doktori Iskola. Budapest. 2007:49
- Perényi Sz. Alacsonyán stagnáló mozgástrend: A fizikai inaktivitás újratermelődése. Magyar Ifjúság 2012 Tanulmánykötet. 2012: 247.
- Sajtos L, Mitev A. SPSS kutatási és adatelemzési kézikönyv. Budapest: Alinea Kiadó, 2007:402
- Seifred C, Clopton AW. An alternative view of public subsidy and sport facilities through social anchor theory, City, Culture and Society. 2013 4 (2013):49-55.
- Tomcsányi P. Általános kutatásmódszertan. Budapest: Országos Mezőgazdasági Minősítő Intézet, 2000:36